Department of Defense
Fiscal Year (FY) 2015 Budget Estimates

March 2014

Army

Justification Book

Research, Development, Test & Evaluation, Army

RDT&E − Volume II, Budget Activity 5A

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY

APPROPRIATION LANGUAGE

For expenses necessary for basic and applied scientific research, development, test and evaluation, including maintenance, rehabilitation, lease, and operation of facilities and equipment, $6,593,898,000, to remain available for obligation until September 30, 2016.

The following Justification Books were prepared at a cost of $139,860.00: Aircraft (ACFT), Missile (MSLS), Weapons & Tracked Combat Vehicles (WTCV), Ammunition (AMMO), Other Procurement Army (OPA) 1 - Tactical & Support Vehicles, Other Procurement Army (OPA) 2 - Communications &Electronics, Other Procurement Army (OPA) 3 & 4 - Other Support Equipment & Spares, Research, Development, Test and Evaluation (RDTE) for: Budget Activity 1, Budget Activity 2, Budget Activity 3, Budget Activity 4, Budget Activity 5A, Budget Activity 5B, Budget Activity 6, and Budget Activity 7.

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Department of Defense
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Exhibit R-1 FY 2015 President's Budget
Total Obligational Authority
(Dollars in Thousands)

February 28, 2014

Appropriation	FY 2013 (Base & OCO)	FY 2014 Base Enacted	FY 2014 OCO Enacted	FY 2014 Total Enacted	FY 2015 Base
Research, Development, Test & Eval, Army	8,010,810	7,122,681	13,500	7,136,181	6,593,898
Total Research, Development, Test & Evaluation	8,010,810	7,122,681	13,500	7,136,181	6,593,898

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Summary Recap of Budget Activities	FY 2013 (Base & OCO)	FY 2014 Base Enacted	FY 2014 OCO Enacted	FY 2014 Total Enacted	FY 2015 Base
Basic Research	384,636	436,493		436,493	424,176
Applied Research	910,391	954,451		954,451	862,611
Advanced Technology Development	961,060	1,063,636		1,063,636	917,791
Advanced Component Development & Prototypes	421,655	408,552	6,500	415,052	323,156
System Development & Demonstration	2,785,237	2,052,576	7,000	2,059,576	1,719,374
RDT&E Management Support	1,241,684	1,163,091		1,163,091	1,000,430
Operational Systems Development	1,306,147	1,043,882		1,043,882	1,346,360
Total Research, Development, Test & Evaluation	8,010,810	7,122,681	13,500	7,136,181	6,593,898
Summary Recap of FYDP Programs					
Strategic Forces	142,508	83,406		83,406	54,076
General Purpose Forces	610,249	575,129		575,129	963,970
Intelligence and Communications	383,165	208,332		208,332	170,244
Research and Development	6,821,245	6,199,708	13,500	6,213,208	5,329,383
Central Supply and Maintenance	53,461	56,106		56,106	76,225
Administration and Associated Activities	182				
Total Research, Development, Test & Evaluation	8,010,810	7,122,681	13,500	7,136,181	6,593,898

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Appropriation: 2040A Research, Development, Test & Eval, Army

Line No	Program Element Number	Item	Act	FY 2013 (Base & OCO)	FY 2014 Base Enacted	FY 2014 OCO Enacted	FY 2014 Total Enacted	FY 2015 Base
1	0601101A	In-House Laboratory Independent Research	01	18,836	21,792		21,792	13,464
2	0601102A	Defense Research Sciences	01	197,690	221,783		221,783	238,167
3	0601103A	University Research Initiatives	01	72,243	79,317		79,317	69,808
4	0601104A	University and Industry Research Centers	01	95,867	113,601		113,601	102,737
	Basic Research			384,636	436,493		436,493	424,176
5	0602105A	Materials Technology	02	54,578	55,569		55,569	28,006
6	0602120A	Sensors and Electronic Survivability	02	40,842	43,148		43,148	33,515
7	0602122A	TRACTOR HIP	02	20,638	36,273		36,273	16,358
8	0602211A	Aviation Technology	02	46,828	55,586		55,586	63,433
9	0602270A	Electronic Warfare Technology	02	13,838	17,575		17,575	18,502
10	0602303A	Missile Technology	02	43,277	59,500		59,500	46,194
11	0602307A	Advanced Weapons Technology	02	23,140	26,148		26,148	28,528
12	0602308A	Advanced Concepts and Simulation	02	21,075	24,051		24,051	27,435
13	0602601A	Combat Vehicle and Automotive Technology	02	62,267	64,555		64,555	72,883
14	0602618A	Ballistics Technology	02	55,113	75,263		75,263	85,597
15	0602622A	Chemical, Smoke and Equipment Defeating Technology	02	4,010	4,487		4,487	3,971
16	0602623A	Joint Service Small Arms Program	02	6,378	7,814		7,814	6,853
17	0602624A	Weapons and Munitions Technology	02	46,097	52,778		52,778	38,069
18	0602705A	Electronics and Electronic Devices	02	85,099	58,990		58,990	56,435
19	0602709A	Night Vision Technology	02	48,069	43,403		43,403	38,445
20	0602712A	Countermine Systems	02	28,875	30,563		30,563	25,939

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Line No	Program Element Number	Item	Act	FY 2013 (Base & OCO)	FY 2014 Base Enacted	FY 2014 OCO Enacted	FY 2014 Total Enacted	FY 2015 Base
21	0602716A	Human Factors Engineering Technology	02	18,161	21,328		21,328	23,783
22	0602720A	Environmental Quality Technology	02	18,259	20,304		20,304	15,659
23	0602782A	Command, Control, Communications Technology	02	26,200	34,191		34,191	33,817
24	0602783A	Computer and Software Technology	02	8,886	10,434		10,434	10,764
25	0602784A	Military Engineering Technology	02	71,553	70,027		70,027	63,311
26	0602785A	Manpower/Personnel/Training Technology	02	15,979	17,645		17,645	23,295
27	0602786A	Warfighter Technology	02	53,206	31,529		31,529	25,751
28	0602787A	Medical Technology	02	98,023	93,290		93,290	76,068
		Applied Research		910,391	954,451		954,451	862,611
29	0603001A	Warfighter Advanced Technology	03	36,975	66,025		66,025	65,139
30	0603002A	Medical Advanced Technology	03	99,924	100,999		100,999	67,291
31	0603003A	Aviation Advanced Technology	03	57,364	81,037		81,037	88,990
32	0603004A	Weapons and Munitions Advanced Technology	03	69,788	73,885		73,885	57,931
33	0603005A	Combat Vehicle and Automotive Advanced Technology	03	128,463	146,992		146,992	110,031
34	0603006A	Space Application Advanced Technology	03	3,702	5,862		5,862	6,883
35	0603007A	Manpower, Personnel and Training Advanced Technology	03	8,756	7,796		7,796	13,580
36	0603008A	Electronic Warfare Advanced Technology	03	45,254	45,394		45,394	44,871
37	0603009A	TRACTOR HIKE	03	6,792	9,161		9,161	7,492
38	0603015A	Next Generation Training & Simulation Systems	03	15,404	13,620		13,620	16,749
39	0603020A	TRACTOR ROSE	03	8,762	10,662		10,662	14,483
40	0603105A	Military HIV Research	03	20,920				

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Line No	Program Element Number	Item	Act	FY 2013 (Base & OCO)	FY 2014 Base Enacted	FY 2014 OCO Enacted	FY 2014 Total Enacted	FY 2015 Base
41	0603125A	Combating Terrorism - Technology Development	03	9,199	15,046		15,046	24,270
42	0603130A	TRACTOR NAIL	03	3,207	3,192		3,192	3,440
43	0603131A	TRACTOR EGGS	03	2,560	2,366		2,366	2,406
44	0603270A	Electronic Warfare Technology	03	19,561	25,335		25,335	26,057
45	0603313A	Missile and Rocket Advanced Technology	03	80,379	83,975		83,975	44,957
46	0603322A	TRACTOR CAGE	03	12,026	11,077		11,077	11,105
47	0603461A	High Performance Computing Modernization Program	03	202,969	220,565		220,565	181,609
48	0603606A	Landmine Warfare and Barrier Advanced Technology	03	24,448	22,794		22,794	13,074
49	0603607A	Joint Service Small Arms Program	03	5,478	5,027		5,027	7,321
50	0603710A	Night Vision Advanced Technology	03	33,328	44,387		44,387	44,138
51	0603728A	Environmental Quality Technology Demonstrations	03	12,398	11,739		11,739	9,197
52	0603734A	Military Engineering Advanced Technology	03	30,503	23,705		23,705	17,613
53	0603772A	Advanced Tactical Computer Science and Sensor Technology	03	22,900	32,995		32,995	39,164
		Advanced Technology Development		961,060	1,063,636		1,063,636	917,791
54	0603305A	Army Missle Defense Systems Integration	04	22,340	23,289		23,289	12,797
55	0603308A	Army Space Systems Integration	04	9,038	13,584		13,584	13,999
56	0603619A	Landmine Warfare and Barrier - Adv Dev	04	4,089				
57	0603627A	Smoke, Obscurant and Target Defeating Sys-Adv Dev	04	2,430				
58	0603639A	Tank and Medium Caliber Ammunition	04	27,114	30,596		30,596	29,334
59	0603653A	Advanced Tank Armament System (ATAS)	04	11,116	49,963		49,963	
60	0603747A	Soldier Support and Survivability	04	15,936	5,185	6,500	11,685	9,602

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61	0603766A	Tactical Electronic Surveillance System - Adv Dev	04	7,960	6,890		6,890	8,953
62	0603774A	Night Vision Systems Advanced Development	04	9,556	9,061		9,061	3,052
63	0603779A	Environmental Quality Technology - Dem/Val	04	4,060	2,631		2,631	7,830
64	0603782A	Warfighter Information Network-Tactical - DEM/VAL	04	161,505	122,319		122,319	
65	0603790A	NATO Research and Development	04	4,393	3,872		3,872	2,954
66	0603801A	Aviation - Adv Dev	04	7,227	5,015		5,015	
67	0603804A	Logistics and Engineer Equipment - Adv Dev	04	13,028	11,549		11,549	13,386
68	0603805A	Combat Service Support Control System Evaluation and Analysis	04	4,499				
69	0603807A	Medical Systems - Adv Dev	04	22,514	15,594		15,594	23,659
70	0603827A	Soldier Systems - Advanced Development	04	30,793	14,152		14,152	6,830
71	0603850A	Integrated Broadcast Service	04	96	79		79	
72	0604100A	Analysis Of Alternatives	04					9,913
73	0604115A	Technology Maturation Initiatives	04	12,636	11,110		11,110	74,740
74	0604120A	Assured Positioning, Navigation and Timing (PNT)	04					9,930
75	0604131A	TRACTOR JUTE	04	54				
76	0604319A	Indirect Fire Protection Capability Increment 2-Intercept (IFPC2)	04	25,710	79,190		79,190	96,177
77	0604785A	Integrated Base Defense (Budget Activity 4)	04	3,604	4,473		4,473	
78	0305205A	Endurance UAVs	04	21,957				
		Advanced Component Development & Prototypes		421,655	408,552	6,500	415,052	323,156
79	0604201A	Aircraft Avionics	05	60,472	76,547		76,547	37,246
80	0604220A	Armed, Deployable Helos	05	80,934	69,807		69,807	

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81	0604270A	Electronic Warfare Development	05	102,812	144,543		144,543	6,002
82	0604280A	Joint Tactical Radio	05		31,809		31,809	9,832
83	0604290A	Mid-tier Networking Vehicular Radio (MNVR)	05	2,556	23,328		23,328	9,730
84	0604321A	All Source Analysis System	05	5,601	4,837		4,837	5,532
85	0604328A	TRACTOR CAGE	05	11,297	23,829		23,829	19,929
86	0604601A	Infantry Support Weapons	05	83,224	85,054		85,054	27,884
87	0604604A	Medium Tactical Vehicles	05	2,908	2,139		2,139	210
88	0604611A	JAVELIN	05	4,540	5,000		5,000	4,166
89	0604622A	Family of Heavy Tactical Vehicles	05	17,975	21,310	7,000	28,310	12,913
90	0604633A	Air Traffic Control	05	10,140	514		514	16,764
91	0604641A	Tactical Unmanned Ground Vehicle (TUGV)	05	2,795				6,770
92	0604710A	Night Vision Systems - Eng Dev	05	29,352	43,382		43,382	65,333
93	0604713A	Combat Feeding, Clothing, and Equipment	05	1,901	1,938		1,938	1,335
94	0604715A	Non-System Training Devices - Eng Dev	05	40,470	18,971		18,971	8,945
95	0604716A	Terrain Information - Eng Dev	05	928				
96	0604741A	Air Defense Command, Control and Intelligence - Eng Dev	05	42,876	18,284		18,284	15,906
97	0604742A	Constructive Simulation Systems Development	05	25,828	17,004		17,004	4,394
98	0604746A	Automatic Test Equipment Development	05	10,307	6,697		6,697	11,084
99	0604760A	Distributive Interactive Simulations (DIS) - Eng Dev	05	12,427	12,569		12,569	10,027
100	0604780A	Combined Arms Tactical Trainer (CATT) Core	05	16,005	27,619		27,619	42,430
101	0604798A	Brigade Analysis, Integration and Evaluation	05	191,065	99,947		99,947	105,279

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102	0604802A	Weapons and Munitions - Eng Dev	05	12,999	15,712		15,712	15,006
103	0604804A	Logistics and Engineer Equipment - Eng Dev	05	45,135	41,682		41,682	24,581
104	0604805A	Command, Control, Communications Systems - Eng Dev	05	18,543	7,376		7,376	4,433
105	0604807A	Medical Materiel/Medical Biological Defense Equipment - Eng Dev	05	38,712	39,447		39,447	30,397
106	0604808A	Landmine Warfare/Barrier - Eng Dev	05	37,769	92,236		92,236	57,705
107	0604814A	Artillery Munitions - EMD	05	3,576	8,205		8,205	
108	0604818A	Army Tactical Command & Control Hardware & Software	05	50,279	22,945		22,945	29,683
109	0604820A	Radar Development	05	3,734	1,548		1,548	5,224
110	0604822A	General Fund Enterprise Business System (GFEBS)	05	24,742	226		226	
111	0604823A	Firefinder	05	18,303	20,210		20,210	37,492
112	0604827A	Soldier Systems - Warrior Dem/Val	05	28,358	18,467		18,467	6,157
113	0604854A	Artillery Systems - EMD	05	149,667	121,270		121,270	1,912
114	0604869A	Patriot/MEADS Combined Aggregate Program (CAP)	05	348,234				
115	0604870A	Nuclear Arms Control Monitoring Sensor Network	05	7,093				
116	0605013A	Information Technology Development	05	44,684	68,778		68,778	69,761
117	0605018A	Integrated Personnel and Pay System-Army (IPPS-A)	05	122,168	69,253		69,253	138,465
118	0605028A	Armored Multi-Purpose Vehicle (AMPV)	05		28,285		28,285	92,353
119	0605030A	Joint Tactical Network Center (JTNC)	05		68,112		68,112	8,440
120	0605031A	Joint Tactical Network (JTN)	05					17,999
121	0605035A	Common Infrared Countermeasures (CIRCM)	05					145,409
122	0605350A	WIN-T Increment 3 - Full Networking	05					113,210

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Line No	Program Element Number	Item	Act	FY 2013 (Base & OCO)	FY 2014 Base Enacted	FY 2014 OCO Enacted	FY 2014 Total Enacted	FY 2015 Base
123	0605380A	AMF Joint Tactical Radio System (JTRS)	05		10,213		10,213	6,882
124	0605450A	Joint Air-to-Ground Missile (JAGM)	05	9,686	15,119		15,119	83,838
125	0605456A	PAC-3/MSE Missile	05	63,123	68,807		68,807	35,009
126	0605457A	Army Integrated Air and Missile Defense (AIAMD)	05	247,407	369,452		369,452	142,584
127	0605625A	Manned Ground Vehicle	05	570,121	100,147		100,147	49,160
128	0605626A	Aerial Common Sensor	05	108,566	10,377		10,377	17,748
129	0605766A	National Capabilities Integration (MIP)	05		21,132		21,132	15,212
130	0605812A	Joint Light Tactical Vehicle (JLTV) Engineering and Manufacturing Development Ph	05	59,205	84,185		84,185	45,718
131	0605830A	Aviation Ground Support Equipment	05					10,041
132	0210609A	Paladin Integrated Management (PIM)	05					83,300
133	0303032A	TROJAN - RH12	05	3,892	3,463		3,463	983
134	0304270A	Electronic Warfare Development	05	12,828	10,801		10,801	8,961
		System Development & Demonstration		2,785,237	2,052,576	7,000	2,059,576	1,719,374
135	0604256A	Threat Simulator Development	06	16,409	23,921		23,921	18,062
136	0604258A	Target Systems Development	06	12,583	13,481		13,481	10,040
137	0604759A	Major T&E Investment	06	45,057	46,647		46,647	60,317
138	0605103A	Rand Arroyo Center	06	18,892	18,909		18,909	20,612
139	0605301A	Army Kwajalein Atoll	06	162,089	193,555		193,555	176,041
140	0605326A	Concepts Experimentation Program	06	24,720	22,246		22,246	19,439
141	0605502A	Small Business Innovative Research	06	169,555				
142	0605601A	Army Test Ranges and Facilities	06	334,087	340,477		340,477	275,025

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143	0605602A	Army Technical Test Instrumentation and Targets	06	61,711	66,025		66,025	45,596
144	0605604A	Survivability/Lethality Analysis	06	40,865	43,256		43,256	33,295
145	0605606A	Aircraft Certification	06	5,258	6,022		6,022	4,700
146	0605702A	Meteorological Support to RDT&E Activities	06	6,668	7,345		7,345	6,413
147	0605706A	Materiel Systems Analysis	06	18,622	19,799		19,799	20,746
148	0605709A	Exploitation of Foreign Items	06	5,501	5,938		5,938	7,015
149	0605712A	Support of Operational Testing	06	64,458	55,475		55,475	49,221
150	0605716A	Army Evaluation Center	06	57,037	65,240		65,240	55,039
151	0605718A	Army Modeling & Sim X-Cmd Collaboration & Integ	06	1,375	1,282		1,282	1,125
152	0605801A	Programwide Activities	06	75,662	81,993		81,993	64,169
153	0605803A	Technical Information Activities	06	48,995	33,835		33,835	32,319
154	0605805A	Munitions Standardization, Effectiveness and Safety	06	50,838	58,309		58,309	49,052
155	0605857A	Environmental Quality Technology Mgmt Support	06	4,276	5,191		5,191	2,612
156	0605898A	Management HQ - R&D	06	16,844	54,145		54,145	49,592
157	0909999A	Financing for Cancelled Account Adjustments	06	182				
		RDT&E Management Support		1,241,684	1,163,091		1,163,091	1,000,430
158	0603778A	MLRS Product Improvement Program	07	110,860	96,424		96,424	17,112
159	0607141A	Logistics Automation	07		3,715		3,715	3,654
160	0607664A	Biometric Enabling Capability (BEC)	07					1,332
161	0607865A	Patriot Product Improvement	07	44,581	35,034		35,034	152,991
162	0102419A	Aerostat Joint Project Office	07	142,508	83,406		83,406	54,076

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163	0203726A	Adv Field Artillery Tactical Data System	07	26,216	25,507		25,507	22,374
164	0203728A	Joint Automated Deep Operation Coordination System (JADOCS)	07					24,371
165	0203735A	Combat Vehicle Improvement Programs	07	189,396	177,437		177,437	295,177
166	0203740A	Maneuver Control System	07	60,948	36,475		36,475	45,092
167	0203744A	Aircraft Modifications/Product Improvement Programs	07	193,404	239,696		239,696	264,887
168	0203752A	Aircraft Engine Component Improvement Program	07	804	315		315	381
169	0203758A	Digitization	07	34,225	6,183		6,183	10,912
170	0203801A	Missile/Air Defense Product Improvement Program	07	17,863	1,577		1,577	5,115
171	0203802A	Other Missile Product Improvement Programs	07		62,067		62,067	49,848
172	0203808A	TRACTOR CARD	07	58,174	18,768		18,768	22,691
173	0205402A	Integrated Base Defense - Operational System Dev	07					4,364
174	0205410A	Materials Handling Equipment	07					834
175	0205412A	Environmental Quality Technology - Operational System Dev	07					280
176	0205456A	Lower Tier Air and Missile Defense (AMD) System	07					78,758
177	0205778A	Guided Multiple-Launch Rocket System (GMLRS)	07					45,377
178	0208053A	Joint Tactical Ground System	07	29,187	7,104		7,104	10,209
179	0208058A	Joint High Speed Vessel (JHSV)	07	32				
180	0301359A	Special Army Program	07					
181	0303028A	Security and Intelligence Activities	07	6,778	7,596		7,596	12,525
182	0303140A	Information Systems Security Program	07	14,314	9,351		9,351	14,175
183	0303141A	Global Combat Support System	07	108,506	41,203		41,203	4,527

Department of the Army
FY 2015 President's Budget
Exhibit R-1 FY 2015 President's Budget
Total Obligational Authority
(Dollars in Thousands)

February 28, 2014

Appropriation: 2040A Research, Development, Test & Eval, Army

Line No	Program Element Number	Item	Act	FY 2013 (Base & OCO)	FY 2014 Base Enacted	FY 2014 OCO Enacted	FY 2014 Total Enacted	FY 2015 Base
184	0303142A	SATCOM Ground Environment (SPACE)	07	14,101	18,188		18,188	11,011
185	0303150A	WWMCCS/Global Command and Control System	07	13,208	14,208		14,208	2,151
186	0304348A	Advanced Geospatial Intelligence (AGI)	07					
187	0305204A	Tactical Unmanned Aerial Vehicles	07	28,466	33,515		33,515	22,870
188	0305208A	Distributed Common Ground/Surface Systems	07	38,673	27,607		27,607	20,155
189	0305219A	MQ-1C Gray Eagle UAS	07	68,694	10,895		10,895	46,472
190	0305232A	RQ-11 UAV	07	3,716	2,320		2,320	
191	0305233A	RQ-7 UAV	07	28,554	12,025		12,025	16,389
192	0307665A	Biometrics Enabled Intelligence	07	15,225	12,443		12,443	1,974
193	0310349A	Win-T Increment 2 - Initial Networking	07					3,249
194	0708045A	End Item Industrial Preparedness Activities	07	53,461	56,106		56,106	76,225
		Operational Systems Development		1,306,147	1,043,882		1,043,882	1,346,360
		Total Research, Development, Test & Eval, Army		8,010,810	7,122,681	13,500	7,136,181	6,593,898

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Program Element Table of Contents (by Budget Activity then Line Item Number)

Budget Activity 05: System Development & Demonstration (SDD)
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Budget Activity 05: System Development & Demonstration (SDD)
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Budget Activity 05: System Development & Demonstration (SDD)
Appropriation 2040: Research, Development, Test & Evaluation, Army

Program Element Table of Contents (Alphabetically by Program Element Title)

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604201A *I AIRCRAFT AVIONICS*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	60.472	76.547	37.246	-	37.246	1.870	1.451	5.630	6.079	Continuing	Continuing
C97: *ACFT Avionics*	-	11.987	25.802	22.494	-	22.494	1.870	1.451	5.630	6.079	Continuing	Continuing
VU3: *Networking And Mission Planning*	-	48.485	50.745	14.752	-	14.752	-	-	-	-	-	113.982

The FY 2015 OCO Request will be submitted at a later date.

Note

FY13 Congressional Mark -$28.5M/+$17.3M to BORES/DVE, Sequestration $5.501M
POM/BES 15-19 reduced FY15 to $37.246M

A. Mission Description and Budget Item Justification

The FY 2015 budget request funds the development of Aircraft Avionics systems required to horizontally and vertically integrate the battlefield and the integration of those systems into Army aircraft. Tasks in this Project support research, development, and test efforts in the Engineering and Manufacturing Development phases of these systems.

The Joint Tactical Radio System (JTRS) is the transformational system that provides Army Aviation interoperability capability for Future Force and Joint Force operations. The JTRS integration effort provides for the non-recurring engineering required to integrate and qualify the JTRS certified radios with Link 16 and/or other advanced networking waveforms into the AH-64E and Unmanned Aircraft Systems (UAS). Funding in FY 2015 continues integration activities to install and qualify JTRS certified networking radios on the AH-64E and Shadow UAS platforms and also supports continued development of common radio control software and qualified airborne JTRS antennas for use on multiple platforms. The Shadow UAS solution will be incorporated into the Shadow Communications Relay Payload (CRP) mission equipmment package.

The Improved Data Modem (IDM) is the common solution for digitizing Army Aviation. It performs as an internet controller and gateway to the Tactical Internet and Fire Support internet for Army aircraft. With interfaces supporting a transmit/receive terminal, the IDM provides radio connectivity to the ARC-201D/231, ARC-186, ARC-164, and the Blue Force Tracker transceivers. IDM provides a flexible, software driven digital messaging system that is interoperable with existing Army and Joint forces battlefield operating systems. The IDM provides Situational Awareness and Variable Message Format messages capability to the cockpit.

The Doppler Global Positioning System Navigation System (DGNS) Upgrade program completes system engineering trade studies to reduce space, weight, and power with the introduction of new navigation support capabilities such as inertial sensor, MIL-STD-1553 interface card, and Instrument Flight Rules map display. It also prepares Engineering Change Proposals (ECP) to the existing DGNS ASN-128D Line Replaceable Units (LRU) as a result of those trade studies. The effort also derives DGNS compliance matrices for current and planned Global Air Traffic Management (GATM) capabilities for the upcoming decade. The DGNS upgrade continues with execution of Non-Recurring Engineering (NRE) for Computer Display Unit (CDU) and Signal Data Converter (SDC) LRU ECP packages. The ASN-128D CDU

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army	Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604201A *I AIRCRAFT AVIONICS*

Upgrade replaces the current CDU faceplate with a touch screen display, provides a moving navigation map capability and optimized pilot interface to augment existing Instrument Flight Rules (IFR) capability and promote safer flight operations.

The Future Airborne Capability Environment (FACE), previously referred to as Apache Block III, is a set of standards jointly developed by government and industry consortium members; conformance to this standard is Army Aviation's conduit to compliance with the Common Operating Environment (COE) directive. This will be accomplished through the integration of the selected middleware into Army Aviation Platforms. This includes the non-recurring engineering for integration, test, and air worthiness qualification. As part of the Army's migration to a net-centric fighting force, it is necessary for aircraft to access certain critical services that enable seamless access and operation on the future force network.

The Aviation Data Exploitation Capability (ADEC) is an Army Aviation program to develop, integrate, and test specific capabilities needed at the Aviation unit level to implement and support improvements within aviation maintenance, operations, safety and training. ADEC will standardize data and information formats and provide a comprehensive and fully integrated automated information system. ADEC provides a common and interoperable capability required to implement Military Flight Operations Quality Assurance processes.

The Aircraft Notebook (ACN) will provide users with an aviation centric suite of software used to streamline the completion of aviation maintenance activities and its documentation. ACN will include The Army Maintenance Management System - Aviation (TAMMS-A) digital logbook functionality and will host and integrate with platform applications, such as Interactive Electronic Technical Manuals (IETM) and Ground Station Software (GSS) application. ACN will reduce the Information Technology footprint within an aviation unit by integrating multiple software tools onto one hardware platform.

The Brownout Rotorcraft Enhancement System (BORES), previously referred to as Degraded Visual Environment (DVE), is required to reduce personnel and rotocraft losses while conducting both tactical and training missions in environments that restrict or severely reduce the aircrews visibility due to atmospheric obscurants. BORES will improve safety, reduce risk and add flexibility to aviation units by enhancing situational awareness through real-time detection and warning of terrain, obstacles and hazards. BORES will consist of integrated rotorcraft pilotage augmentation systems; sensor(s); software; software related hardware; and pilot to system interfaces and cueing devices. BORES will fuse a synthetic vision avionics backbone with aircraft state data and obscurant penetrating sensor(s) to provide a single rotorcraft capability for ground taxi, hover, takeoff and landing modes of flight.

The Aviation Logistics Enterprise - Platform (ALE-P) will replace the Unit Level Logistics System-Aviation (Enhanced), which has transitioned into sustainment, and the Unmanned Aviation Systems-Initiative, which currently only provides automated logistics capabilities for the UAS community, providing a single Aviation Logistics Information System for all of Army aviation. ALE-P will provide the interface to the Global Combat Support System-Army and other enterprise systems at Logistics Support Activity (LOGSA), Aviation Missile Command (AMCOM), and Program Executive Office (PEO) Aviaton, as well as the ACN and ADEC at the unit level. ALE-P will be a system of software and hardware that maintains platform airworthiness records and delivers a Logistics Management and Decision Support System for commanders.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604201A / *AIRCRAFT AVIONICS*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	78.538	76.588	97.762	-	97.762
Current President's Budget	60.472	76.547	37.246	-	37.246
Total Adjustments	-18.066	-0.041	-60.516	-	-60.516
• Congressional General Reductions	-0.068	-0.041			
• Congressional Directed Reductions	-11.200	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-5.501	-			
• SBIR/STTR Transfer	-1.297	-			
• Adjustments to Budget Years	-	-	-60.516	-	-60.516

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604201A / *AIRCRAFT AVIONICS*	Project (Number/Name) C97 / *ACFT Avionics*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
C97: *ACFT Avionics*	-	11.987	25.802	22.494	-	22.494	1.870	1.451	5.630	6.079	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

The FY 2015 budget request funds the development of Aircraft Avionics systems required to horizontally and vertically integrate the battlefield and the integration of those systems into Army aircraft. Tasks in this Project support research, development, and test efforts in the Engineering and Manufacturing Development phases of these systems.

The Joint Tactical Radio System (JTRS) is the transformational system that provides Army Aviation interoperability capability for Future Force and Joint Force operations. The JTRS integration effort provides for the non-recurring engineering required to integrate and qualify the JTRS certified radios with Link 16 and/or other advanced networking waveforms into the AH-64E and Unmanned Aircraft Systems (UAS). Funding in FY 2015 continues integration activities to install and qualify JTRS certified networking radios on the AH-64E and Shadow UAS platforms and also supports continued development of common radio control software and qualified airborne JTRS antennas for use on multiple platforms. The Shadow UAS solution will be incorporated into the Shadow Communications Relay Payload (CRP) mission equipment package.

The Doppler Global Positioning System Navigation System (DGNS) Upgrade program completes system engineering trade studies to reduce space, weight, and power with the introduction of new navigation support capabilities such as inertial sensor, MIL-STD-1553 interface card, and Instrument Flight Rules map display. It also prepares Engineering Change Proposals (ECP) to the existing DGNS ASN-128D Line Replaceable Units (LRU) as a result of those trade studies. The effort also derives DGNS compliance matrices for current and planned Global Air Traffic Management (GATM) capabilities for the upcoming decade. The DGNS upgrade continues with execution of Non-Recurring Engineering (NRE) for Computer Display Unit (CDU) and Signal Data Converter (SDC) LRU ECP packages. The ASN-128D CDU Upgrade replaces the current CDU faceplate with a touch screen display, provides a moving navigation map capability and optimized pilot interface to augment existing Instrument Flight Rules (IFR) capability and promote safer flight operations.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Joint Tactical Radio System (JTRS) integration and qualification for Apache AH-64E, and Unmanned Aircraft Systems (UAS) platforms.	11.987	16.245	18.116
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *AIRCRAFT AVIONICS*	**Project (Number/Name)** C97 / *ACFT Avionics*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: The JTRS integration effort provides for the non-recurring engineering required to integrate and qualify the JTRS compliant radios and/or other advanced networking waveforms into the AH-64E, and UAS platforms for both production cut-in and retrofit activities. ***FY 2013 Accomplishments:*** Continued Link 16 integration activities for AH-64E to support ground and flight tests. Continued JTRS integration onto the Shadow platform and conducted final JTRS engineering change proposal qualification activities for UAS Shadow. Continued development of JTRS antennas for use on all platforms. Continued to use antenna co-site effort to determine platform JTRS antenna locations and associated co-site analysis. Continued JTRS Radio Control Software Development. ***FY 2014 Plans:*** Initiate JTRS integration activities on AH-64E for implementation of a networking radio with Soldier Radio Waveform (SRW) and/or other advanced networking waveform. Continue Link 16 integration and qualification activities for AH-64E. Continue development of JTRS Antennas and associated co-site analysis tasks. Complete JTRS Radio Control Software Development. Complete JTRS integration onto the Shadow platform (CRP). ***FY 2015 Plans:*** Continue integration activities to install and qualify JTRS Link 16 and certified networking radios on the AH-64E. Continue development of qualified airborne JTRS antennas for use on multiple platforms.			
Title: Doppler Global Positioning System Navigation System (DGNS) Upgrade	-	9.557	4.378
Articles:	-	-	-
Description: The DGNS Upgrade effort provides for the non-recurring engineering required to develop and qualify new navigation capabilities that meets emerging GATM navigation requirements and promotes safer flight operations. The DGNS Upgrade consists of engineering changes to the CDU and SDC avionics components of the DGNS. The CDU Upgrade replaces the current CDU faceplate with a touch screen display, provides a moving navigation map capability and optimized pilot interface to augment existing Instrument Flight Rules (IFR) capability and promote safer flight operations. The SDC Upgrade replaces the current GPS receiver to support Wide Area Augmentation System (WAAS) and GPS precision approach as well as implementing emerging GATM Area Navigation (RNAV) requirements. ***FY 2014 Plans:*** Initiate CDU Upgrade non-recurring engineering effort with hardware and software development from requirements definition through Critical Design Review (CDR). ***FY 2015 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *AIRCRAFT AVIONICS*	**Project (Number/Name)** C97 / *ACFT Avionics*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continue CDU Upgrade non-recurring engineering effort with software implementation, hardware fabrication, DGNS system integration, and full airworthiness component level qualification testing.			
Accomplishments/Planned Programs Subtotals	11.987	25.802	22.494

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• COMMS, NAV Surveillance: *COMMS, NAV Surveillance*	88.815	92.779	115.795	-	115.795	127.720	116.828	153.268	217.498	Continuing	Continuing
• GATM Rotary Wing: *GATM Rotary Wing*	29.709	53.541	41.821	-	41.821	48.952	48.119	55.800	61.066	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project is comprised of multiple systems supporting aircraft avionics. While the detailed acquisition strategy varies from program to program, the general strategy is for each individual program to complete the development and testing efforts in coordination with the aircraft platforms on integration issues, use the various contracts of the aircraft platforms original equipment manufacturers on integration efforts, and utilize the Aviation & Missile Research, Development, and Engineering Center for software development. This requires the use of various contract methods and types to accomplish the aircraft avionics development efforts. All required acquisition program documentation is prepared.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604201A / *AIRCRAFT AVIONICS*	Project (Number/Name) C97 / *ACFT Avionics*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM Services (JTRS)	Reqn	PM AME : Redstone Arsenal, AL	0.000	0.600	Nov 2012	0.622	Nov 2013	0.654	Oct 2014	-		0.654	Continuing	Continuing	Continuing
		Subtotal	0.000	0.600		0.622		0.654		-		0.654	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS Common Radio Control Software Development	Various	AMRDEC Software Engineering Directorate : Redstone Arsenal, AL	2.673	2.725	Mar 2013	2.867	Mar 2014	-		-		-	-	8.265	8.265
JTRS Antenna Development and Co-Site Analysis	C/CPFF	AMRDEC, Prototype Integration Facility : Redstone Arsenal, AL	1.886	1.772	Feb 2013	0.650	Mar 2014	0.500	Mar 2015	-		0.500	Continuing	Continuing	Continuing
JTRS Shadow Communication Relay Package (CRP)	C/FFP	AMS : Huntsville, AL	1.272	2.084	Dec 2012	1.774	Aug 2014	-		-		-	-	5.130	9.958
DGNS Upgrade	C/CPFF	BAE Systems : Wayne, NJ	11.091	-		9.557	Feb 2014	4.378	Dec 2014	-		4.378	Continuing	Continuing	Continuing
JTRS Link-16 and Networking Waveform Integration and Qualification onto AH-64E	SS/CPFF	Boeing : Mesa, AZ	25.183	4.806	Dec 2012	10.332	Dec 2013	16.962	Mar 2015	-		16.962	Continuing	Continuing	Continuing
		Subtotal	42.105	11.387		25.180		21.840		-		21.840	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	42.105	11.987		25.802		22.494		-		22.494	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *AIRCRAFT AVIONICS*	**Project (Number/Name)** C97 / *ACFT Avionics*

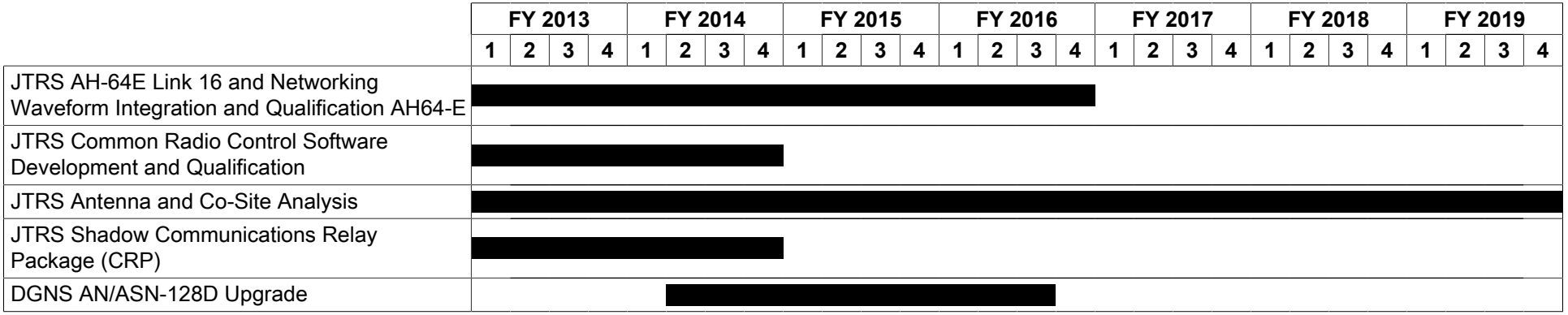

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *AIRCRAFT AVIONICS*	**Project (Number/Name)** C97 / *ACFT Avionics*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
JTRS AH-64E Link 16 and Networking Waveform Integration and Qualification AH64-E	1	2011	4	2016
JTRS Common Radio Control Software Development and Qualification	1	2011	4	2014
JTRS Antenna and Co-Site Analysis	2	2011	4	2019
JTRS Shadow Communications Relay Package (CRP)	1	2012	4	2014
DGNS AN/ASN-128D Upgrade	2	2014	3	2016

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604201A / *AIRCRAFT AVIONICS*				Project (Number/Name) VU3 / *Networking And Mission Planning*			
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
VU3: *Networking And Mission Planning*	-	48.485	50.745	14.752	-	14.752	-	-	-	-	-	113.982
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The FY 2015 budget request funds the development of Networking and Mission Planning systems required to horizontally and vertically integrate the battlefield and the integration of those systems into Army aircraft. Tasks in this Project support research, development, and test efforts in the Engineering and Manufacturing Development (EMD) phases of these systems.

The Improved Data Modem (IDM) is the common solution for digitizing Army Aviation. It performs as an internet controller and gateway to the Tactical Internet and Fire Support internet for Army aircraft. With interfaces supporting a transmit/receive terminal, the IDM provides radio connectivity to the ARC-201D/231, ARC-186, ARC-164, and the Blue Force Tracker transceivers. IDM provides a flexible, software driven digital messaging system that is interoperable with existing Army and Joint forces battlefield operating systems. The IDM provides Situational Awareness and Variable Message Format messages capability to the cockpit.

The Future Airborne Capability Environment (FACE), previously referred to as Apache Block III, is a set of standards jointly developed by government and industry consortium members; conformance to this standard is Army Aviation's conduit to compliance with the Common Operating Environment (COE) directive. This will be accomplished through the integration of the selected middleware into Army Aviation Platforms. This includes the non-recurring engineering for integration, test, and air worthiness qualification. As part of the Army's migration to a net-centric fighting force, it is necessary for aircraft to access certain critical services that enable seamless access and operation on the future force network.

The Aviation Data Exploitation Capability (ADEC) is an Army Aviation program to develop, integrate, and test specific capabilities needed at the Aviation unit level to implement and support improvements within aviation maintenance, operations, safety and training. ADEC will standardize data and information formats and provide a comprehensive and fully integrated automated information system. ADEC provides a common and interoperable capability required to implement Military Flight Operations Quality Assurance processes.

The Aircraft Notebook (ACN) will provide users with an aviation centric suite of software used to streamline the completion of aviation maintenance activities and its documentation. ACN will include The Army Maintenance Management System - Aviation (TAMMS-A) digital logbook functionality and will host and integrate with platform applications, such as Interactive Electronic Technical Manuals (IETM) and Ground Station Software (GSS) application. ACN will reduce the Information Technology footprint within an aviation unit by integrating multiple software tools onto one hardware platform.

The Brownout Rotorcraft Enhancement System (BORES), previously referred to as Degraded Visual Environment (DVE), is required to reduce personnel and rotocraft losses while conducting both tactical and training missions in environments that restrict or severely reduce the aircrews visibility due to atmospheric obscurants. BORES

will improve safety, reduce risk and add flexibility to aviation units by enhancing situational awareness through real-time detection and warning of terrain, obstacles and hazards. BORES will consist of integrated rotorcraft pilotage augmentation systems; sensor(s); software; software related hardware; and pilot to system interfaces and cueing devices. BORES will fuse a synthetic vision avionics backbone with aircraft state data and obscurant penetrating sensor(s) to provide a single rotorcraft capability for ground taxi, hover, takeoff and landing modes of flight.

The Aviation Logistics Enterprise - Platform (ALE-P) will replace the Unit Level Logistics System-Aviation (Enhanced), which has transitioned into sustainment, and the Unmanned Aviation Systems-Initiative, which currently only provides automated logistics capabilities for the UAS community, providing a single Aviation Logistics Information System for all of Army aviation. ALE-P will provide the interface to the Global Combat Support System-Army and other enterprise systems at Logistics Support Activity (LOGSA), Aviation Missile Command (AMCOM), and Program Executive Office (PEO) Aviaton, as well as the ACN and ADEC at the unit level. ALE-P will be a system of software and hardware that maintains platform airworthiness records and delivers a Logistics Management and Decision Support System for commanders.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Improved Data Modem (IDM)	2.072	-	-
Articles:	-	-	-
Description: The IDM is the common solution for digitizing Army Aviation. It performs as an internet controller and gateway to Tactical internet and Fire Support internet for Army Aviation. The IDM provides radio connectivity to the ARC-201D/231, ARC-186, ARC-164 and the Blue Force Tracker transceivers. Funds are required to continue development of an Open Systems Architecture (OSA) and Joint Battle Command -Platform (Aviation) (JBC-P(A)) solution compatible with the AH-64D, CH-47F, HH/UH-60M, OH-58D. This effort provides the foundation to develop and qualify a new hardware architecture to host IDM and Army Common Operating Environment applications to ensure interoperability on the future digital battlefield. ***FY 2013 Accomplishments:*** Delivered engineering releases of IDM OSA hardware and software to aircraft platforms to aid integration efforts. Continued development, integration, and testing of JBC-P(A) products.			
Title: Future Airborne Capability Environment (FACE)	8.700	-	-
Articles:	-	-	-
Description: FACE, previously referred to as Apache Block III, is a set of standards jointly developed by government and industry consortium members; conformance to this standard is Army Aviation's conduit to compliance with the Common Operating Environment (COE) directive. This will be accomplished through the integration of the selected middleware into Army Aviation Platforms. This includes the non-recurring engineering for integration, test, and air worthiness qualification. As part of the Army's migration to a net-centric fighting force, it is necessary for aircraft to access certain critical services that enable seamless access and operation on the future force network. ***FY 2013 Accomplishments:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *AIRCRAFT AVIONICS*	**Project (Number/Name)** VU3 / *Networking And Mission Planning*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continued integration of the selected middleware into the Army Aviation Platforms to support the Army Common Operating Environment convergence via FACE.			
Title: Aviation Data Exploitation Capability (ADEC)	2.061	9.534	5.001
Articles:	-	-	-
Description: The ADEC is an Army Aviation program to develop, integrate, and test specific capabilities needed at the Aviation unit level to implement and support improvements within aviation maintenance, operations, safety and training. ADEC will standardize data and information formats and provide a comprehensive and fully integrated automated information system. ADEC provides a common and interoperable capability required to implement Military Flight Operations Quality Assurance processes.			
FY 2013 Accomplishments: Continued design, development, integration, and testing of the hardware and software needed to realize the ADEC system. Continued the advanced component development of Phase I applications.			
FY 2014 Plans: Continue design, development, integration, and testing of the hardware and software needed to realize the ADEC system. Continue the advanced component development of Phase I applications.			
FY 2015 Plans: Complete design, development, integration, and testing of the hardware and software needed to realize the ADEC system and conduct OT&E activities.			
Title: Brownout Rotorcraft Enhancement System (BORES)	27.241	29.558	-
Articles:	-	-	-
Description: The BORES, previously referred to as Degraded Visual Environment (DVE), is required to reduce personnel and rotocraft losses while conducting both tactical and training missions in environments that restrict or severely reduce the aircrews visibility due to atmospheric obscurants. BORES will improve safety, reduce risk and add flexibility to aviation units by enhancing situational awareness through real-time detection and warning of terrain, obstacles and hazards. BORES will consist of integrated rotorcraft pilotage augmentation systems; sensor(s); software; software related hardware; and pilot to system interfaces and cueing devices. BORES will fuse a synthetic vision avionics backbone with aircraft state data and obscurant penetrating sensor(s) to provide a single rotorcraft capability for ground taxi, hover, takeoff and landing modes of flight.			
FY 2013 Accomplishments: Continued development of BORES hardware and software.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *AIRCRAFT AVIONICS*	**Project (Number/Name)** VU3 / *Networking And Mission Planning*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Conduct technical design and development of BORES.			
Title: Aviation Logistics Enterprise-Platform (ALE-P)	3.272	8.199	6.752
Articles:	-	-	-
Description: The ALE-P will replace the Unit Level Logistics System-Aviation (Enhanced), which has transitioned into sustainment, and the Unmanned Aviation Systems-Initiative, which currently only provides automated logistics capabilities for the UAS community, providing a single Aviation Logistics Information System for all of Army aviation. ALE-P will provide the interface to the Global Combat Support System-Army and other enterprise systems at LOGSA, AMCOM, and PEO Aviaton, as well as the ACN and ADEC at the unit level. ALE-P will be a system of software and hardware that maintains platform airworthiness records and delivers a Logistics Management and Decision Support System for commanders. ***FY 2013 Accomplishments:*** Began design and development of ALE-P hardware and software. ***FY 2014 Plans:*** Continue development, test, and integration of ALE-P hardware and software and conduct OT&E activities. ***FY 2015 Plans:*** Complete development, test, and integration of ALE-P hardware and software and OT&E activities.			
Title: Aircraft Notebook (ACN)	5.139	3.454	2.999
Articles:	-	-	-
Description: The ACN will provide users with an aviation centric suite of software used to streamline the completion of aviation maintenance activities and its documentation. ACN will include The Army Maintenance Management System - Aviation (TAMMS-A) digital logbook functionality and will host and integrate with platform applications, such as IETM and GSS application. ACN will reduce the Information Technology footprint within an aviation unit by integrating multiple software tools onto one hardware platform. ***FY 2013 Accomplishments:*** Continued design, development, integration, and testing of the hardware and software needed to realize the ACN system. Continued the advanced component development of Phase IV applications, the development of platform specific software, ADEC and ALE-P integration and Initial Operational Test and Evaluation. ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *AIRCRAFT AVIONICS*	**Project (Number/Name)** VU3 / *Networking And Mission Planning*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continue design, development, integration, and testing of the hardware and software needed to realize the ACN system. Continue the advanced component development of Phase IV applications, the development of platform specific software, ADEC and ALE-P integration and Initial Operational Test and Evaluation. ***FY 2015 Plans:*** Complete development and integration of ACN hardware and software and Operational Test and Evaluation activities.			
Accomplishments/Planned Programs Subtotals	48.485	50.745	14.752

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Network and Mission Plan: *Network and Mission Plan*	130.527	92.326	114.182	-	114.182	110.667	118.330	171.708	144.804	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project is comprised of multiple systems supporting aircraft avionics. While the detailed acquisition strategy varies from program to program, the general strategy is for each individual program to complete the development and testing efforts in coordination with the aircraft platforms on integration issues, use the various contracts of the aircraft platforms original equipment manufacturers on integration efforts, and utilize the Aviation & Missile Research, Development, and Engineering Center for software development. This requires the use of various contract methods and types to accomplish the aircraft avionics development efforts. All required acquisition program documentation is prepared.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604201A / *AIRCRAFT AVIONICS*	Project (Number/Name) VU3 / *Networking And Mission Planning*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM Support (IDM)	Various	AMCOM : Redstone Arsenal, AL	0.000	0.321	Oct 2012	-		-		-		-	-	0.321	-
PM Support (ADEC)	Various	AMCOM : Redstone Arsenal, AL	0.000	0.062	Oct 2012	2.272	Oct 2013	2.239	Oct 2014	-		2.239	-	4.573	-
PM Support (ACN)	Various	AMCOM : Redstone Arsenal, AL	0.000	1.799	Oct 2012	1.223	Oct 2013	0.775	Oct 2014	-		0.775	-	3.797	-
PM Support (ALE-P)	Various	AMCOM : Redstone Arsenal, AL	0.000	-		1.427	Oct 2013	1.354	Oct 2014	-		1.354	-	2.781	-
PM Support (BORES)	Various	AMCOM : Redstone Arsenal, AL	0.000	1.396	Oct 2012	2.828	Oct 2013	-		-		-	-	4.224	-
		Subtotal	0.000	3.578		7.750		4.368		-		4.368	-	15.696	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Middleware integration via FACE	Various	TBD : TBD	0.000	8.700	Jan 2013	-		-		-		-	-	8.700	-
Develop and qualify the software and hardware for ALE-P.	Various	Various : Various	0.000	3.272	Feb 2013	3.647	Feb 2014	3.134	Feb 2015	-		3.134	-	10.053	-
Develop and qualify OSA hardware to host IDM	Various	Various : Various	0.000	0.500	Jan 2013	-		-		-		-	-	0.500	-
Qualify ADEC software and hardware	Various	Various : Various	0.000	1.546	Jan 2013	5.200	Apr 2014	1.422	Apr 2015	-		1.422	-	8.168	-
Develop and qualify BORES hardware and software	Various	Various : Various	0.000	25.845	Jan 2013	-		-		-		-	-	25.845	-
Qualify ACN software and hardware	TBD	Various : Various	0.000	1.078	Jul 2013	0.735	Jul 2014	1.246	Mar 2015	-		1.246	-	3.059	-
		Subtotal	0.000	40.941		9.582		5.802		-		5.802	-	56.325	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604201A / *AIRCRAFT AVIONICS*	Project (Number/Name) VU3 / *Networking And Mission Planning*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering, Logistics, and Technical Support (BORES)	Various	Various : Various	0.000	-		7.904	Jan 2014	-		-		-	-	7.904	-
System Engineering, Logistics, and Technical Support (ADEC)	Various	Various : Various	0.000	0.144	Feb 2013	0.491	Feb 2014	0.399	Feb 2015	-		0.399	-	1.034	-
System Engineering, Logistics, and Technical Support (ACN)	Various	Various : Various	0.000	0.206	Feb 2013	0.129	Feb 2014	0.425	Mar 2015	-		0.425	-	0.760	-
System Engineering, Logistics, and Technical Support (ALE-P)	Various	Various : Various	0.000	-		1.387	Feb 2014	0.897	Feb 2015	-		0.897	-	2.284	-
		Subtotal	0.000	0.350		9.911		1.721		-		1.721	-	11.982	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Aviation Systems Integration Facility Test Lab (IDM)	Various	AMCOM : Redstone Arsenal, AL	0.000	1.251	Jan 2013	-		-		-		-	-	1.251	-
SVT and LUE for BORES	TBD	TBD : TBD	0.000	-		18.826	Jun 2014	-		-		-	-	18.826	-
ADEC	Various	AMCOM : Redstone Arsenal, AL	0.000	0.309	Feb 2013	1.571	Feb 2014	0.941	Feb 2015	-		0.941	-	2.821	-
ACN	TBD	AMCOM : Redstone Arsenal, AL	0.000	2.056	Apr 2013	1.367	Apr 2014	0.553	Mar 2015	-		0.553	-	3.976	-
ALE-P	TBD	AMCOM : Redstone Arsenal, AL	0.000	-		1.738	Feb 2014	1.367	Feb 2015	-		1.367	-	3.105	-
		Subtotal	0.000	3.616		23.502		2.861		-		2.861	-	29.979	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	48.485		50.745		14.752		-		14.752	-	113.982	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604201A / *AIRCRAFT AVIONICS*	Project (Number/Name) VU3 / *Networking And Mission Planning*	

	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *AIRCRAFT AVIONICS*	**Project (Number/Name)** VU3 / *Networking And Mission Planning*

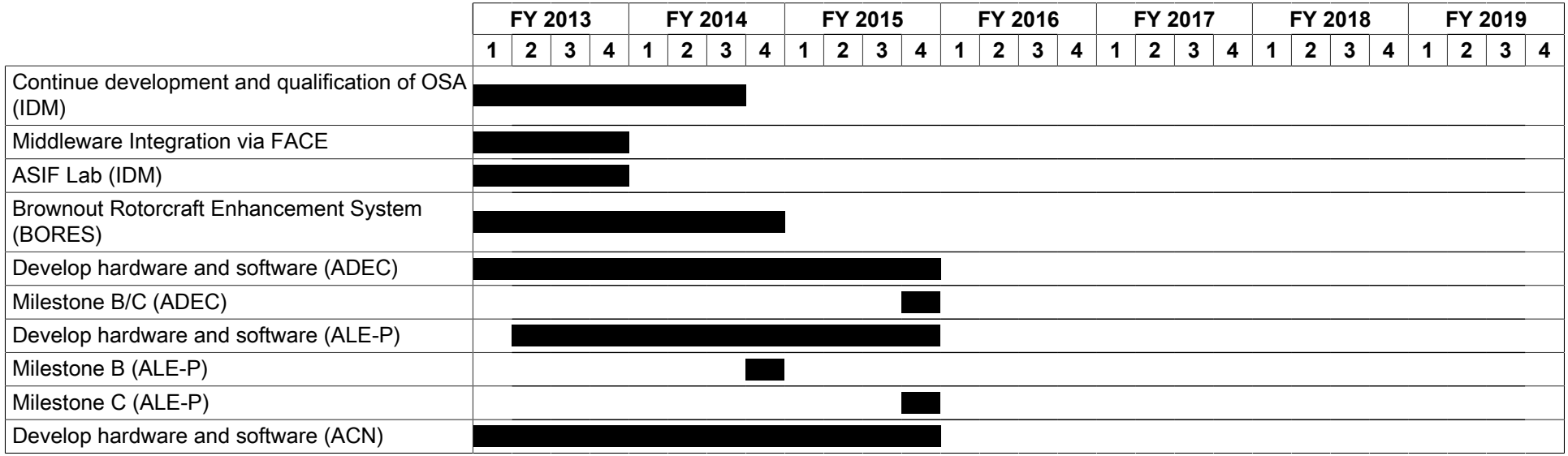

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604201A / *AIRCRAFT AVIONICS*	**Project (Number/Name)** VU3 / *Networking And Mission Planning*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Continue development and qualification of OSA (IDM)	2	2006	3	2014
Middleware Integration via FACE	2	2012	4	2013
ASIF Lab (IDM)	2	2011	4	2013
Brownout Rotorcraft Enhancement System (BORES)	4	2011	4	2014
Develop hardware and software (ADEC)	2	2011	4	2015
Milestone B/C (ADEC)	4	2015	4	2015
Develop hardware and software (ALE-P)	2	2013	4	2015
Milestone B (ALE-P)	4	2014	4	2014
Milestone C (ALE-P)	4	2015	4	2015
Develop hardware and software (ACN)	1	2012	4	2015

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604220A / *Armed, Deployable Helos*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	80.934	69.807	-	-	-	-	-	-	-	Continuing	Continuing
538: *Kiowa Warrior*	-	76.067	66.343	-	-	-	-	-	-	-	Continuing	Continuing
53Z: *Armed Scout Helicopter*	-	4.867	3.464	-	-	-	-	-	-	-	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

Change Summary Explanation:
No FY15 funds requested.

A. Mission Description and Budget Item Justification

The Project 538 funding line develops, integrates and tests modifications which will allow the Kiowa Warrior (KW) to continue to safely serve as the Army's armed reconnaissance aviation capability until replaced/retired. An ACAT II program, OH-58F KW Cockpit and Sensor Upgrade Program (CASUP), was established to address capability shortfalls, obsolescence, and safety issues with the current fielded fleet and is required through 2025 and beyond. KW CASUP current program baseline is not the alternative solution to meet the Armed Scout Helicopter (Project 53Z) capability.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	90.494	73.309	38.727	-	38.727
Current President's Budget	80.934	69.807	-	-	-
Total Adjustments	-9.560	-3.502	-38.727	-	-38.727
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-3.502			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 3	-9.560	-	-38.727	-	-38.727

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604220A / *Armed, Deployable Helos*	Project (Number/Name) 538 / *Kiowa Warrior*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
538: *Kiowa Warrior*	-	76.067	66.343	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The OH-58D Kiowa Warrior (KW) is a two-seat, single-engine, observation, scout/attack helicopter with four main rotor blades. It utilizes a thermal-imaging system and a laser rangefinder/designator in a Mast Mounted Sight (MMS) situated above the main rotor system. The aircraft is equipped with a variety of weapon systems including: HELLFIRE, 2.75-inch rockets, and a .50-caliber machine gun. The aircraft operates autonomously at standoff ranges providing armed reconnaissance, command and control, and target acquisition/designation for Apache helicopters and other airborne weapons platforms in day, night, and adverse-weather conditions. Sensor imagery from compatible Unmanned Aerial Systems (UAS) and manned aircraft can be received and relayed to other aircraft or ground stations. The Active Army and the National Guard fly Kiowa Warriors.

Funding develops, integrates and qualifies modifications to support Kiowa Warrior missions. The ACAT II KW Cockpit and Sensor Upgrade Program (CASUP) will convert the OH-58D to the OH-58F configuration, and allow it to continue to safely serve as the Army's armed reconnaissance, aviation platform through its operational service life. Efforts include upgrading Control Display System (CDS) mission computers, avionics, intercom system, aircraft survivability systems, weapon systems, electrical systems, and cockpit instruments and displays, reducing weight and obsolescence, structural modifications, and replacing single with dual channel Full Authority Digital Electronic Control (FADEC), the MMS with the nose mounted AN/AAS-53 Common Sensor Payload (CSP) which is common with the Gray Eagle Unmanned Aerial Vehicle (UAV). Training Aids, Devices, Simulators and Simulations (TADSS) will be upgraded to maintain concurrency.

Additionally, the funding will incorporate required design improvements by Engineering Change Proposal (ECP) to the Single Channel FADEC Upgrade Electronic Control Unit (SCFU ECU) to improve safety and reliability of the OH-58D engine fuel control.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Development and Integration	45.274	32.632	-
Articles:	-	-	-
Description: Development and Integration Efforts			
FY 2013 Accomplishments: Development and Integration Efforts			
FY 2014 Plans: Development and Integration Efforts			
Title: Engineering Support Activities	17.550	17.512	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604220A / *Armed, Deployable Helos*	**Project (Number/Name)** 538 / *Kiowa Warrior*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: Engineering Support Activities ***FY 2013 Accomplishments:*** Engineering Support Activities ***FY 2014 Plans:*** Engineering Support Activities			
Title: Test and Evaluation	6.615	10.170	-
Articles:	-	-	-
Description: Test and Evaluation ***FY 2013 Accomplishments:*** Test and Evaluation ***FY 2014 Plans:*** Test and Evaluation			
Title: Program Management	6.628	6.029	-
Articles:	-	-	-
Description: Program Management ***FY 2013 Accomplishments:*** Program Management ***FY 2014 Plans:*** Program Management			
Accomplishments/Planned Programs Subtotals	76.067	66.343	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• (AZ2200): *Kiowa Warrior (AZ2200)*	192.484	184.044	-	-	-	-	-	-	-	-	376.528
• (A02345): *Kiowa WRA (A02345)*	183.900	117.000	-	-	-	-	-	-	-	-	300.900

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604220A / *Armed, Deployable Helos*	**Project (Number/Name)** 538 / *Kiowa Warrior*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost

Remarks

Funding will procure and install modification kits and components on the Kiowa Warrior (KW).

D. Acquisition Strategy

The Government serves as the system integrator managing multiple contracts and government agencies.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604220A / *Armed, Deployable Helos*	Project (Number/Name) 538 / *Kiowa Warrior*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Various	Various Activities : Various Activities	21.802	6.628	Jan 2013	6.029	Jan 2014	-		-		-	-	34.459	-
		Subtotal	21.802	6.628		6.029		-		-		-	-	34.459	-

Remarks

Funding will provide Armed Scout Helicopter (ASH) Government and contractor Program Management, Engineering, and Logistical support.

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development and Integration	Various	Various Activities : Honeywell Inc. / PIF/ BHTI	220.759	45.274	Nov 2012	32.632	Nov 2013	-		-		-	-	298.665	-
		Subtotal	220.759	45.274		32.632		-		-		-	-	298.665	-

Remarks

Funding will provide both contractor and in-house development and integration efforts. Development and Integration activities will be performed by Honeywell Inc, Prototype Integration Facility and Bell Helicopter Textron Inc.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support Activities	Various	Various Activities : AMRDEC, AED & SED	34.795	17.550	Mar 2013	17.512	Mar 2014	-		-		-	-	69.857	-
		Subtotal	34.795	17.550		17.512		-		-		-	-	69.857	-

Remarks

Funding will provide engineering support activities performed by Aviation and Missile Research and Development Center (AMRDEC), Aviation Engineering Directorate (AED) and Software Engineering Directorate (SED).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604220A / *Armed, Deployable Helos*	Project (Number/Name) 538 / *Kiowa Warrior*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	Various	Various Activities : RTC, AATD, DTC, OTC	7.769	6.615	Feb 2013	10.170	Feb 2014	-		-		-	-	24.554	-
		Subtotal	7.769	6.615		10.170		-		-		-	-	24.554	-

Remarks

Funding will provide test and evaluation activities conducted by Redstone Test Center (RTC), Aviation Applied Technology Directorate (AATD), Developmental Test Command (DTC), and Operational Test Command (OTC).

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	285.125	76.067		66.343		-		-		-	-	427.535	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604220A / *Armed, Deployable Helos*	**Project (Number/Name)** 538 / *Kiowa Warrior*

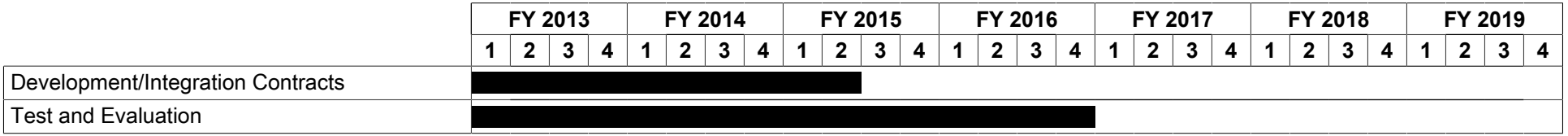

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604220A / *Armed, Deployable Helos*	**Project (Number/Name)** 538 / *Kiowa Warrior*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Development/Integration Contracts	4	2008	2	2015
Test and Evaluation	4	2010	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604220A / *Armed, Deployable Helos*	Project (Number/Name) 53Z / *Armed Scout Helicopter*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
53Z: *Armed Scout Helicopter*	-	4.867	3.464	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The mission of the Kiowa Warrior replacement aircraft is to provide a robust reconnaissance and security capability for the Joint Combined arms air-ground maneuver team. It will be a direct replacement for the aging OH-58D/F Kiowa Warrior fleet.

The aircraft will provide a highly deployable, reconnaissance and security capability that will employ immediately upon arrival into theater. The platform will address the capability gaps of interoperability, survivability, versatility, agility, lethality, and sustainability to ensure interoperability over extended ranges. The platform enhances mission effectiveness throughout the operational environment, and focuses on system survivability against threats operating in the contemporary operational environment, while reducing the logistical burden on the tactical unit. The fundamental purpose is to perform reconnaissance and to provide security in combat operations. In doing so, it improves the commander's ability to maneuver and concentrate superior combat power against the enemy at the decisive time and place.

No funding was appropriated in the FY14 budget.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: AAS AoA and Milestone Support/Risk Reduction	4.867	3.464	-
Articles:	-	-	-
Description: Funding is provided for the following effort			
FY 2013 Accomplishments: AAS AoA and Milestone support			
FY 2014 Plans: AAS AoA and Milestone support			
Accomplishments/Planned Programs Subtotals	4.867	3.464	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604220A / *Armed, Deployable Helos*	**Project (Number/Name)** 53Z / *Armed Scout Helicopter*

D. Acquisition Strategy

Not applicable for this item.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604220A / *Armed, Deployable Helos*	Project (Number/Name) 53Z / *Armed Scout Helicopter*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Voluntary Flight Demonstration	Various	Various : Various	7.940	-		-		-		-		-	-	7.940	-
		Subtotal	7.940	-		-		-		-		-	-	7.940	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AAS AoA and Milestone Support/Risk Reduction	Various	Various : Various	9.025	4.867		-		-		-		-	-	13.892	-
Requirement Development	TBD	Various : Various	0.000	-		3.464		-		-		-	-	3.464	-
		Subtotal	9.025	4.867		3.464		-		-		-	-	17.356	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	16.965	4.867		3.464		-		-		-	-	25.296	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604220A / *Armed, Deployable Helos*	**Project (Number/Name)** 53Z / *Armed Scout Helicopter*

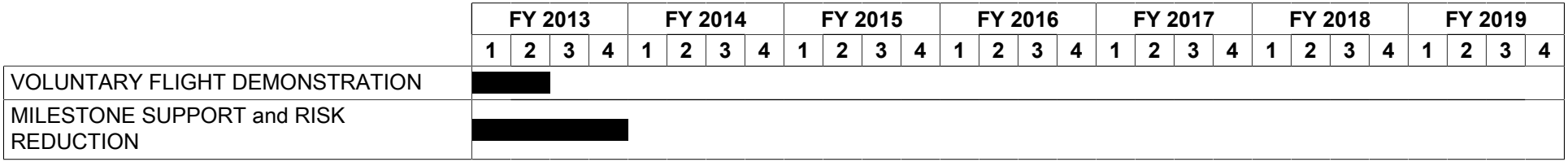

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604220A / *Armed, Deployable Helos*	**Project (Number/Name)** 53Z / *Armed Scout Helicopter*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
VOLUNTARY FLIGHT DEMONSTRATION	3	2012	2	2013
MILESTONE SUPPORT and RISK REDUCTION	3	2012	4	2013

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	114.812	144.543	6.002	-	6.002	9.442	17.346	31.510	50.845	Continuing	Continuing
665: *A/C Surv Equip Dev*	-	21.976	10.420	-	-	-	-	-	-	-	Continuing	Continuing
DX5: *Electronic Warfare And Management Tool*	-	-	0.013	1.967	-	1.967	-	3.945	19.733	24.700	Continuing	Continuing
VS6: *Integrated Electronic Warfare Systems*	-	44.448	20.311	4.035	-	4.035	9.442	13.401	11.777	26.145	Continuing	Continuing
VU7: *Common Missile Warning System*	-	8.840	2.908	-	-	-	-	-	-	-	-	11.748
VU8: *Common Infrared Counter Measure*	-	39.548	110.891	-	-	-	-	-	-	-	-	150.439

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

FY 2015 budget request funds Electronic Warfare Development. This program element (PE) encompasses engineering and manufacturing development for tactical electronic warfare (EW). The Integrated Electronic Warfare System (IEWS) is a system of systems capability set that integrates electronic attack, protect and support functions to dramatically improve the ability to seize, retain, and exploit an advantage within the electromagnetic spectrum (EMS). It is based on a modular, scalable and open architecture to allow Army BCT and Joint Force Commander's to tailor capability responses against a variety of EW threats/scenarios. The IEWS capability set is structured along three program lines of effort: 1) Multi-Function EW (MFEW), 2) Electronic Warfare Planning and Management Tools (EWPMT), and 3) Defensive Electronic Attack (DEA). Project VS6 - Defensive Electronic Attack (DEA) will provide force protection to vehicles, dismounted troops and fixed site locations against radio controlled improvised explosive device (RCIED) and electronic support measures for situational awareness. Project DX5 - EWPMT will provide the Electronic Warfare Officer (EWO) planning capabilities to coordinate, manage, and deconflict the use of the Electromagnetic Spectrum and synchronize spectrum operations within the Cyber Electromagnetic Activities (CEMA) cell. EWPMT will integrate data elements from Mission Command, Intelligence, and Fires to achieve a Common Operating Picture (COP) of the Electromagnetic Operational Environment. Project DX6 - MFEW will provide offensive and defensive electronic attack and electronic support capabilities in a system of systems construct to include ground and airborne variants organic to the Brigade Combat Team. The MFEW Air variant is the highest priority, followed by ground, dismounted and fixed site variants.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	181.347	154.621	238.309	-	238.309
Current President's Budget	114.812	144.543	6.002	-	6.002
Total Adjustments	-66.535	-10.078	-232.307	-	-232.307
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-66.535	-10.078	-232.307	-	-232.307

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) 665 / *A/C Surv Equip Dev*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
665: *A/C Surv Equip Dev*	-	21.976	10.420	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

Transitions to Project EE3, PE 605035A Aircraft Survivability Development

A. Mission Description and Budget Item Justification

The objective of the Aircraft Survivability Equipment (ASE) Development project is to improve Radio Frequency (RF) ASE for Army aviation. The APR-39 Radar Warning Receiver (RWR) detects, categorizes, and prioritizes Radio Frequency (RF) emitters and provides a visual / aural alert to aircrew members warning them of targeting by RF-guided weapons. The Milestone Decision Authority (MDA) approved Phases 1 and 2 of a 3-phased path forward.

Phase 1 serves as an obsolescence / sustainment upgrade to the Processor Line Replaceable Unit (LRU) of the AN/APR-39A(V) Radar Warning Receiver (RWR) implemented to ensure that the currently fielded system remains viable until affordable improved RF ASE capability can be pursued in Phases 2 and 3. Phase 2, RWR Modernization, adopts the ongoing United States Navy Class I RWR Engineering Change Proposal (ECP), commonly referred to as the APR-39D(V)2 system. APR-39D(V)2 will significantly improve the near-spherical RF threat coverage, automatic detection and identification of threat types, bearing, and lethality. Under Phase 2, the Army will develop enhancements to the APR-39D(V)2, including integrated suite control functionality, threat correlation and off-boarding capability, and hardware modifications required to maintain planned integrated jamming growth capability. Phase 3 adds active Electronic Countermeasures (ECM) jamming capability for selected aircraft; Materiel Development Decision (MDD) for this ECM jamming capability phase is not expected until later in the Future Years Defense Program (FYDP).

Justification: There is no Fiscal Year (FY) 2015 Base RDT&E dollar funding requirement for 665. FY15 justification is reported under EE3.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Phase 2 Radio Frequency Countermeasures	21.976	10.420	-
Articles:	-	-	-
Description: Phase 2 Product Development (Digital RWR)			
FY 2013 Accomplishments: Funded Phase 2 system prototypes			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** 665 / *A/C Surv Equip Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Will fund platform integration and lab updates.			
Accomplishments/Planned Programs Subtotals	21.976	10.420	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• AZ3511: *APA AZ3511*	-	-	33.554	-	33.554	103.916	147.039	23.752	41.228	Continuing	Continuing

Remarks

D. Acquisition Strategy

Army Radio Frequency (RF) Aircraft Survivability Equipment (ASE) is managed by Project Manager ASE (PM ASE) for development, testing, procurement, integration and installation on Army rotary wing and small fixed wing aviation platforms. PM ASE proposed a three-phased path forward commensurate with user priorities and affordability considerations. Phase 1, approved by the Milestone Decision Authority (MDA), addresses obsolescence/Diminishing Manufacturing Sources (DMS) issues associated with the currently fielded AN/APR-39A(V) Radar Warning Receiver (RWR) via sole source Engineering Change Proposal (ECP) awarded to the APR-39A manufacturer. Phase 2 adopts the on-going United States Navy (USN) RWR Class I Correction of Deficiencies ECP commonly referred to as the APR-39D(V)2 system, limiting service-unique design, test, and integration expenses. Full Army participation throughout the remaining development, testing, procurement, fielding, and sustainment of the APR-39D(V)2 Digital RWR will address the significant Army RF capability gap while avoiding as much as $1 billion in additional costs associated with a single-Service solution. This multi-Service approach also fields an effective and suitable Materiel Solution 3 years sooner to support the re-balance of the National Defense Strategy to the RF threat-heavy Asia-Pacific Region. Phase 3 will develop and integrate active Electronic Countermeasures jamming capability for select aircraft.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) 665 / *A/C Surv Equip Dev*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Development	Various	Various : -	7.985	2.638		-		-		-		-	Continuing	Continuing	Continuing
Project Management	Various	Various : -	0.182	-		0.146		-		-		-	Continuing	Continuing	Continuing
		Subtotal	8.167	2.638		0.146		-		-		-	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Digital Radar Warning Receiver (RWR)	Various	Lab Demo / Studies : Various-	10.634	8.391		3.560		-		-		-	Continuing	Continuing	Continuing
S/W Development	MIPR	ARAT : Aberdeen Proving Ground, MD	0.000	2.104		1.060		-		-		-	Continuing	Continuing	Continuing
Depot Standup	MIPR	Tobyhanna : Tobyhanna, PA	0.000	1.052		-		-		-		-	Continuing	Continuing	Continuing
Platform Integration	TBD	Multiple : -	0.000	-		2.724		-		-		-	Continuing	Continuing	Continuing
		Subtotal	10.634	11.547		7.344		-		-		-	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Support	Various	Various : -	2.359	0.945		0.500		-		-		-	Continuing	Continuing	Continuing
Matrix Support	Various	Various : -	6.236	1.587		0.390		-		-		-	Continuing	Continuing	Continuing
		Subtotal	8.595	2.532		0.890		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) 665 / *A/C Surv Equip Dev*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Multi-service DT/OT Testing	TBD	Various : -	0.025	5.259		2.040		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.025	5.259		2.040		-		-		-	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	27.421	21.976		10.420		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** 665 / *A/C Surv Equip Dev*

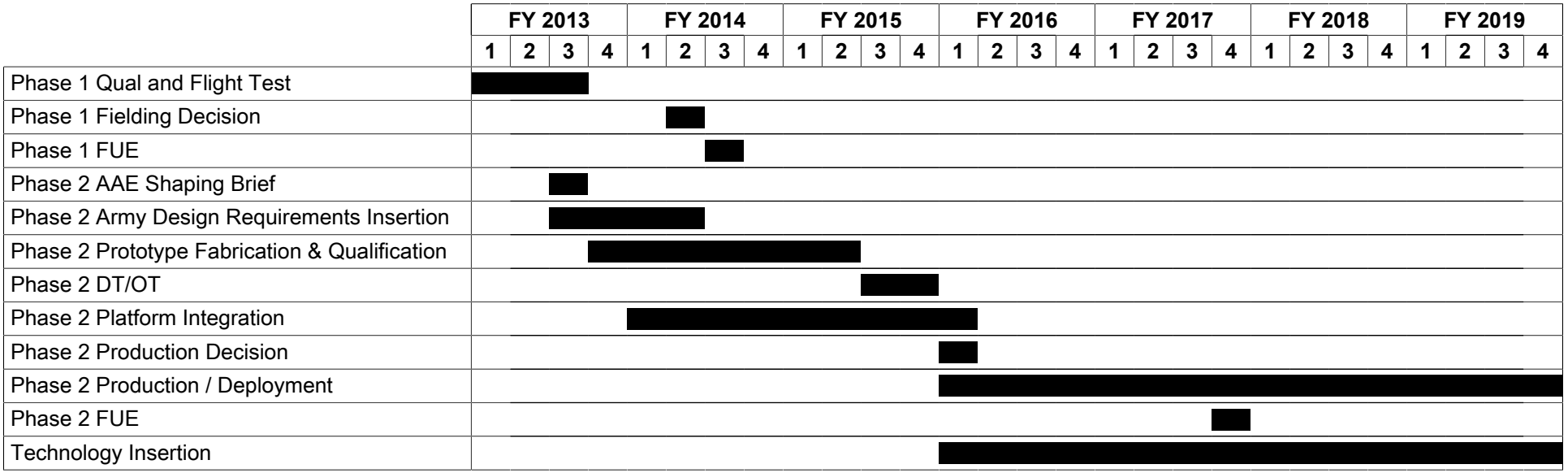

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** 665 / *A/C Surv Equip Dev*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Phase 1 Qual and Flight Test	3	2012	3	2013
Phase 1 Fielding Decision	2	2014	2	2014
Phase 1 FUE	3	2014	3	2014
Phase 2 AAE Shaping Brief	3	2013	3	2013
Phase 2 Army Design Requirements Insertion	3	2013	2	2014
Phase 2 Prototype Fabrication & Qualification	4	2013	2	2015
Phase 2 DT/OT	3	2015	4	2015
Phase 2 Platform Integration	1	2014	1	2016
Phase 2 Production Decision	1	2016	1	2016
Phase 2 Production / Deployment	1	2016	4	2019
Phase 2 FUE	4	2017	4	2017
Technology Insertion	1	2016	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) DX5 / *Electronic Warfare And Management Tool*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DX5: *Electronic Warfare And Management Tool*	-	-	0.013	1.967	-	1.967	-	3.945	19.733	24.700	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

This effort is not a new start. EWPMT was funded in FY12, FY13, and FY14 under PE 0604270A, Project VS6, Integrated Electronic Warfare Systems.

A. Mission Description and Budget Item Justification

The Integrated Electronic Warfare System (IEWS) is a system of systems capability set that integrates electronic attack, protect and support functions to dramatically improve the ability to seize, retain, and exploit an advantage within the electromagnetic spectrum (EMS). It is based on a modular, scalable and open architecture to allow Army BCT and Joint Force Commander's to tailor capability responses against a variety of EW threats/scenarios. The IEWS capability set is structured along three program lines of effort: 1) Multi-Function EW (MFEW), 2) Electronic Warfare Planning and Management Tools (EWPMT), and 3) Defensive Electronic Attack (DEA). EWPMT will provide the Electronic Warfare Officer (EWO) planning capabilities to coordinate, manage, and deconflict the use of the Electromagnetic Spectrum and synchronize spectrum operations within the Cyber Electromagnetic Activities (CEMA) cell. EWPMT will integrate data elements from Mission Command, Intelligence, and Fires to achieve a Common Operating Picture (COP) of the Electromagnetic Operational Environment.

Justification: FY2015 funds in the amount of $1.967 million will provide for test and support activites for the EWPMT program.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: EWPMT	-	0.013	1.967
Articles:	-	-	-
Description: EWPMT is a suite of software tools and applications that will allow the Commander and staff a mission command capability to plan, coordinate, manage, and de-conflict unit EW activities.			
FY 2014 Plans: Funds provide for Product Management office operations for the EWPMT program			
FY 2015 Plans: Funds provide for test support activities and Product Management office operations for the EWPMT program			
Accomplishments/Planned Programs Subtotals	-	0.013	1.967

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** DX5 / *Electronic Warfare And Management Tool*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OPA: *K00002 - EW Planning & Management Tools (EWPMT)*	-	0.013	-	-	-	-	-	-	-	-	0.013

Remarks

D. Acquisition Strategy

EWPMT will follow an evolutionary acquisition strategy using an Information Technology (IT) acquisition process for rapid development and continuous product improvements. The overall strategy is to deploy annual software Capability Drops (CDs) to allow an incremental merger of the Electronic Warfare and Spectrum Management software tools that would not be possible following a traditional acquisition approach.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) DX5 / *Electronic Warfare And Management Tool*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PMO Staff/Travel	Allot	PM EW : Aberdeen Proving Ground, MD	0.000	-		0.013		0.300	Oct 2014	-		0.300	Continuing	Continuing	-
		Subtotal	0.000	-		0.013		0.300		-		0.300	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EWPMT Test support	MIPR	Various : TBD	0.000	-		-		1.667	Mar 2015	-		1.667	Continuing	Continuing	-
		Subtotal	0.000	-		-		1.667		-		1.667	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		0.013		1.967		-		1.967	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** DX5 / *Electronic Warfare And Management Tool*

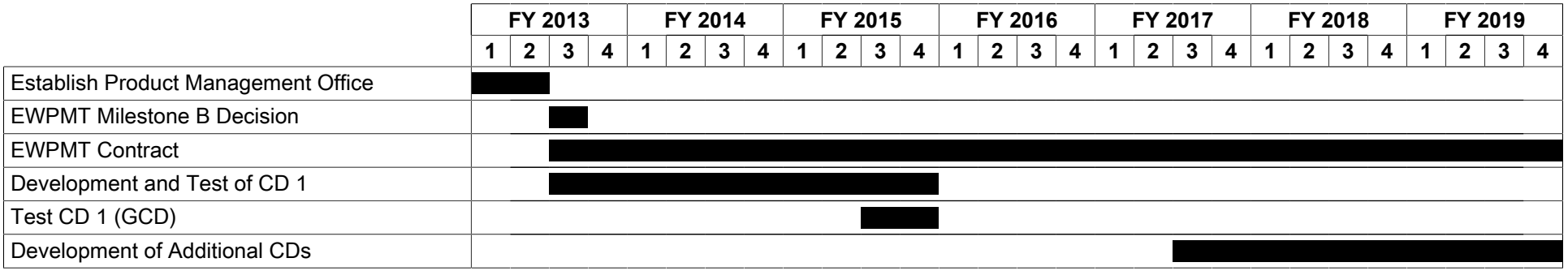

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** DX5 / *Electronic Warfare And Management Tool*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Establish Product Management Office	2	2012	2	2013
EWPMT Milestone B Decision	3	2013	3	2013
EWPMT Contract	3	2013	4	2019
Development and Test of CD 1	3	2013	4	2015
Test CD 1 (GCD)	3	2015	4	2015
Development of Additional CDs	3	2017	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VS6 / *Integrated Electronic Warfare Systems*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
VS6: *Integrated Electronic Warfare Systems*	-	44.448	20.311	4.035	-	4.035	9.442	13.401	11.777	26.145	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

In FY2015, VS6 funding is broken out and transferred to distinct projects. Project DX5 provides funding for the Electronic Warfare Planning and Management tools (EWPMT) program. Project DX6 provides funding for the Multi-Function Electronic Warfare (MFEW) system. Project VS6 provides for alignment of Joint Counter Radio Controlled Improvised Explosive Devices Electronic Warfare (Joint CREW) requirements to material solutions for the Integrated Electronic Warfare System (IEWS) System of Systems (SoS).

A. Mission Description and Budget Item Justification

The Integrated Electronic Warfare System (IEWS) is a system of systems capability set that integrates electronic attack, protect and support functions to dramatically improve the ability to seize, retain, and exploit an advantage within the electromagnetic spectrum (EMS). It is based on a modular, scalable and open architecture to allow Army BCT and Joint Force Commander's to tailor capability responses against a variety of EW threats/scenarios. The IEWS capability set is structured along three program lines of effort: 1) Multi-Function EW (MFEW), 2) Electronic Warfare Planning and Management Tools (EWPMT), and 3) Defensive Electronic Attack (DEA). Defensive Electronic Attack (DEA) will provide force protection to vehicles, dismounted troops and fixed site locations against radio controlled improvised explosive device (RCIED) and electronic support measures for situational awareness. Prior Years DTI/Duke Enhanced is renamed to DV4.

Justification: FY2015 funds in the amount of $4.035 million continues the development of Hardware/Software solutions to ensure systems remain relevant against Global Threats.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: IEWS	44.448	20.311	4.035
Articles:	-	-	-
Description: The IEW System (IEWS) Systems of Systems (SoS) will consist of Electronic Warfare Planning and Management Tool (EWPMT), Multi-Function EW (MFEW), and Defensive Electronic Attack (DEA).			
FY 2013 Accomplishments: EWPMT: Conduct Milestone B Decision Review. Complete Aquisition Requirements Package (ARP) development, initiate a competitive procurement, conduct source selection, and award an Engineering Manufacturing Development (EMD) contract.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VS6 / *Integrated Electronic Warfare Systems*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Award competitive prototyping efforts as architecture, networking, and technology risk reduction activities to support the MFEW effort. ***FY 2014 Plans:*** EWPMT: Continue development of EWPMT software development and test. CREW-2 Duke Tech Insertion (DTI)/Duke Enhanced (DV4): Begin developing Hardware/Software solutions to address parts obsolesence and ensure systems remain relevant against Global Threats. ***FY 2015 Plans:*** CREW-2 Duke Tech Insertions (DTI)/Duke Enhanced (DV4): Continue developing Hardware/Software solutions to ensure systems remain relevant against Global Threats.			
Accomplishments/Planned Programs Subtotals	44.448	20.311	4.035

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• CREW: *VA8000 CREW*	15.426	-	-	-	-	-	-	-	-	-	15.426

Remarks

D. Acquisition Strategy

Duke Technology Insertion development will provide for the continued growth and conduct of research development and testing against emerging RCIED threats. Continuing research development and testing will allow the technology to remain relevant to all requirements and remain responsive to all approved user requirements.

A competitive contract is planned for award in the 1QFY2015. A five (5) year Indefinite Delivery Indefinite Quantity (IDIQ) contract will be awarded on a competitive basis. This will enable maximum flexibility as the technology matures. It is further anticipated that task orders could be awarded for production and fielding of systems in response to urgent requirements.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VS6 / *Integrated Electronic Warfare Systems*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PMO Staff/Travel for EWPMT	Allot	PM Electronic Warfare : Aberdeen Proving Ground, MD	0.744	3.291	Dec 2012	0.921	Jan 2014	-		-		-	Continuing	Continuing	-
Program and Technical Assistance support	C/TBD	TBD : Aberdeen Proving Ground, MD	0.489	2.622	May 2013	0.678	Feb 2014	-		-		-	Continuing	Continuing	-
PMO Staff/Travel for CREW-2 Duke	Allot	PM EW : Aberdeen Proving Ground, MD	0.000	-		0.498	Oct 2013	0.328	Oct 2014	-		0.328	-	0.826	-
		Subtotal	1.233	5.913		2.097		0.328		-		0.328	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EMD Contract - EWPMT	C/CPIF	SOTERA Defense Solutions Herndon, VA : RAYTHEON Fort Wayne, IN	0.000	23.713	Jun 2013	15.280	Aug 2014	-		-		-	Continuing	Continuing	-
IEWS Engineering and Development	MIPR	I2WD : Aberdeen MD	3.757	1.800	Feb 2014	-		-		-		-	Continuing	Continuing	Continuing
Risk Reduction Studies for MFEW	MIPR	Various : Various	0.000	7.969	Jun 2013	-		-		-		-	Continuing	Continuing	-
Develop DV4 HW/SW solutions	C/TBD	TBD : TBD	0.000	-		-		2.645	Nov 2014	-		2.645	-	2.645	-
		Subtotal	3.757	33.482		15.280		2.645		-		2.645	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MFEW Technical/ Engineering Support - Contractor	C/TBD	GTRI : Atlanta, GA	0.000	2.046	Jun 2013	-		-		-		-	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VS6 / *Integrated Electronic Warfare Systems*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	MIPR	USACECOM : Aberdeen Proving Ground, MD	2.165	0.917	Dec 2012	0.232	Mar 2014	-		-		-	-	3.314	Continuing
EWPMT Architecture Study	MIPR	Various : Various	0.000	1.194	Jan 2013	-		-		-		-	-	1.194	-
DV4 Engineering support	C/CPFF	Various : Various	0.000	-		0.125	Jan 2014	0.280	Oct 2014	-		0.280	-	0.405	-
DV4 Government Engineering	MIPR	Various : Various	0.000	-		0.427	Oct 2013	0.428	Oct 2014	-		0.428	-	0.855	-
		Subtotal	2.165	4.157		0.784		0.708		-		0.708	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EWPMT Test support	MIPR	Various : TBD	0.000	0.896	Jun 2013	0.200	Mar 2014	-		-		-	Continuing	Continuing	-
Operational Assessment (OA) of DV4 systems	MIPR	Yuma Proving Ground : Yuma, AZ	0.000	-		1.950	Feb 2014	-		-		-	-	1.950	-
Continous evaluation of CREW-2 Duke technologies	MIPR	Yuma Proving Ground Yuma, AZ : YPG, AZ	0.000	-		-		0.354	Mar 2015	-		0.354	-	0.354	-
		Subtotal	0.000	0.896		2.150		0.354		-		0.354	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	7.155	44.448		20.311		4.035		-		4.035	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VS6 / *Integrated Electronic Warfare Systems*

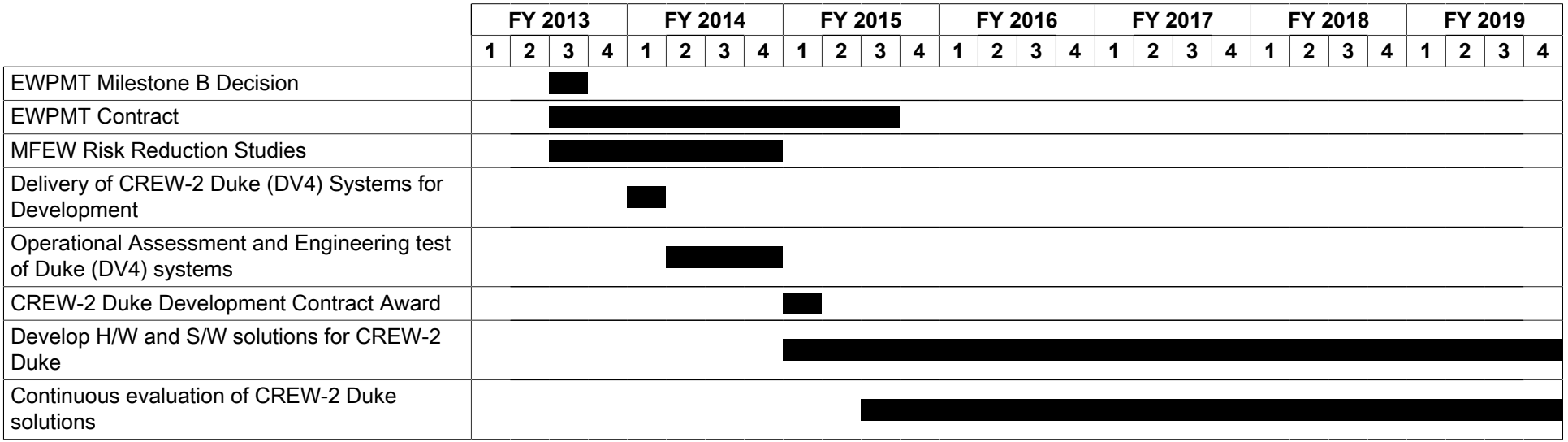

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VS6 / *Integrated Electronic Warfare Systems*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
EWPMT Milestone B Decision	3	2013	3	2013
EWPMT Contract	3	2013	3	2015
MFEW Risk Reduction Studies	3	2013	4	2014
Delivery of CREW-2 Duke (DV4) Systems for Development	1	2014	1	2014
Operational Assessment and Engineering test of Duke (DV4) systems	2	2014	4	2014
CREW-2 Duke Development Contract Award	1	2015	1	2015
Develop H/W and S/W solutions for CREW-2 Duke	1	2015	4	2020
Continuous evaluation of CREW-2 Duke solutions	3	2015	4	2020

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VU7 / *Common Missile Warning System*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
VU7: *Common Missile Warning System*	-	8.840	2.908	-	-	-	-	-	-	-	-	11.748
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

Transitions to Project EE4, PE 605035A Aircraft Survivability Development

A. Mission Description and Budget Item Justification

The US Army operational requirements concept for Aviation Infrared (IR) countermeasure systems is known as the Suite of Integrated Infrared Countermeasures (SIIRCM). SIIRCM is an integrated warning and countermeasure system to enhance aircraft survivability against IR-guided threat missile systems. The Common Missile Warning System (CMWS) is a core element of the SIIRCM concept. CMWS is an integrated ultraviolet (UV) missile warning system, with an Improved Countermeasure Dispenser (ICMD) serving as a subsystem to a host aircraft.

The CMWS program is a UV missile warning system that cues both flare and laser-based countermeasures to defeat incoming IR-seeking missiles and will alert aircrews to the presence of certain incoming unguided munitions. The B-Kit consists of the components which perform the missile detection and aircrew notification, unguided munitions detection and aircrew notification, false alarm rejection, and countermeasure employment/cueing functions of the system. The CMWS Electronic Control Unit (ECU) receives UV missile detection data from Electro-Optic Missile Sensors (EOMS) and sends a missile alert signal to warn aircrews via on-board avionics. Tier 1 threat missiles detected and tracked by the CMWS are subsequently defeated by a combination of missile seeker countermeasures, including decoy flares and IR Laser Jamming (currently ATIRCM-equipped CH-47 platform only). In addition, the CMWS ECU receives from the EOMS unguided munitions detection data which it also passes to the aircrew through aural and visual alerts. The aircrew then applies the appropriate Tactics, Techniques and Procedures (TTPs) to break contact or engage the enemy with own-ship ordnance. The CMWS Generation 3 (Gen 3) ECU in conjunction with ongoing software development efforts will address outstanding material release conditions to achieve a Full Material Release (FMR) for CMWS and ensure protection against emerging IR-guided missile threats.

The A-Kit for CMWS includes mounting hardware, wiring harnesses, cables, and other components necessary to install and interface the mission kit on host aircraft. The A-Kit ensures the mission kit is functionally and physically operational with a specific host aircraft type.

Justification: There is no Fiscal Year (FY) 2015 Base RDT&E dollar funding requirement for VU7. FY15 justification is reported under EE4.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Development Effort	8.840	2.908	-
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU7 / *Common Missile Warning System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: -			
FY 2013 Accomplishments: RDT&E funding supports the design and development of the CMWS Tier 2/3 enhancement, the CMWS Enhanced Sensors studies.			
FY 2014 Plans: RDT&E funding supports development engineering of the Threat Analysis Database (TAD), and salaries.			
Accomplishments/Planned Programs Subtotals	8.840	2.908	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• APA Funding: *APA, BA 4 AZ3517*	125.200	103.021	107.364	-	107.364	131.641	53.736	38.678	33.654	Continuing	Continuing

Remarks

D. Acquisition Strategy

The acquisition strategy includes buying CMWS B-Kits to support the Army Force Generation (ARFORGEN) model and installation of A-Kits on all modernized aircraft. The previous CMWS production contract was a firm fixed-priced (FFP), Indefinite Delivery, Indefinite Quantity (IDIQ) contract. A FFP bridge contract was awarded March 2013 for CMWS hardware. The follow-on CMWS production FFP/CPFF IDIQ contract will be a 3 year firm fixed price contract to procure the remaining Generation 3 (Gen 3) Electronic Control Units (ECUs) and A-Kits and will be awarded in late FY2013 / early FY2014. The Gen 3 ECU, which provides increased processing capacity and enables unguided munitions detection, became a part of the system in FY 2010; First Unit Equipped (FUE) for the Gen 3 ECU was achieved in Operation Enduring Freedom (OEF) on 18 September 2013. All aircraft deployed to OEF have received the new processor with hostile fire detection capability. Gen 3 ECU's will gradually replace all Gen 2 ECU's across the Aviation fleet between now and 2017.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VU7 / *Common Missile Warning System*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CMWS System Engineering Program Management	Various	PM ASE, HSV, AL : -	2.670	0.896		0.279		-		-		-	Continuing	Continuing	Continuing
		Subtotal	2.670	0.896		0.279		-		-		-	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CMWS Tier 2/3 Upgrades	Various	Various : -	2.000	0.815		-		-		-		-	Continuing	Continuing	Continuing
CMWS Threat Analysis Database Design	Various	Various : -	0.455	1.200		-		-		-		-	Continuing	Continuing	Continuing
Threat Analysis Database (TAD)	TBD	BAE : TBD	0.000	2.466	Apr 2013	2.629	Apr 2014	-		-		-	Continuing	Continuing	Continuing
CMWS Enhanced Sensor Study & Evaluation	Various	TBD : -	11.466	3.463		-		-		-		-	Continuing	Continuing	Continuing
CMWS Gen 3 Providence Additional Phases	Various	TBD : -	0.000	-		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	13.921	7.944		2.629		-		-		-	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CMWS Contractor Support	SS/FP	Various : -	0.000	-		-		-		-		-	Continuing	Continuing	Continuing
CMWS Matrix Support	Various	Various : -	0.000	-		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.000	-		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VU7 / *Common Missile Warning System*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government System Test and Evaluation	C/TBD	AMCOM RTC : Redstone	0.000	-		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.000	-		-		-		-		-	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	16.591	8.840		2.908		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU7 / *Common Missile Warning System*

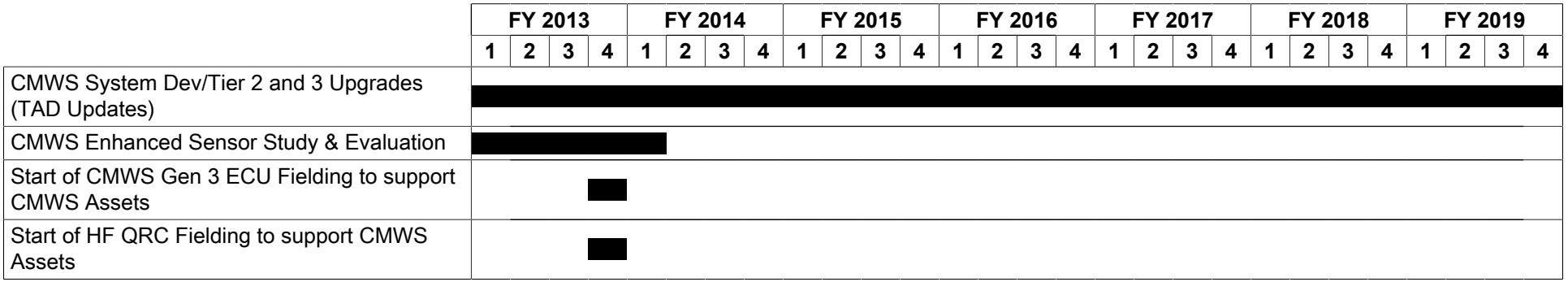

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU7 / *Common Missile Warning System*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
CMWS System Dev/Tier 2 and 3 Upgrades (TAD Updates)	2	2011	4	2019
CMWS Enhanced Sensor Study & Evaluation	3	2012	1	2014
Start of CMWS Gen 3 ECU Fielding to support CMWS Assets	4	2013	4	2013
Start of HF QRC Fielding to support CMWS Assets	4	2013	4	2013

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VU8 / *Common Infrared Counter Measure*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
VU8: *Common Infrared Counter Measure*	-	39.548	110.891	-	-	-	-	-	-	-	-	150.439
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

Transitions to Project EB4, PE 605035A Aircraft Survivability Development

A. Mission Description and Budget Item Justification

The Common Infrared Countermeasure (CIRCM) is an infrared (IR) countermeasure system that interfaces with a Missile Warning System (MWS) to provide near spherical coverage of the host platform in order to defeat IR threat missiles. The CIRCM will provide the sole acquisition of future laser-based IR countermeasure systems for all rotary-wing, tilt-rotor, and small fixed-wing aircraft across the Department of Defense. The US Army's concept of CIRCM is part of the Suite of Integrated Infrared Countermeasures (SIIRCM). The core components of the SIIRCM concept are: a Missile Warning System (MWS), IR expendables countermeasures (flares) and a laser-based IRCM. The SIIRCM detects, declares and initiates IRCM against IR-guided Surface-to-Air Missiles (SAM) or Air-to-Air Missiles (AAM). The CIRCM is the next generation of the laser-based IRCM component and will interface with both the Army's Common Missile Warning System (CMWS) and the Navy's Joint and Allied Threat Awareness System (JATAS). CIRCM was approved to be funded to the Director, Cost Assessment and Program Evaluation Independent Cost Estimate (CAPE ICE) through Milestone B (MS B) per Defense Acquisition Executive Acquisition Decision Memorandum (DAE) (ADM), December 28, 2011.

The A-Kit for CIRCM includes mounting hardware, wiring harnesses, cables, and other components necessary to install and interface the mission kit on host aircraft. The A-Kit ensures the mission kit is functionally and physically operational with a specific host aircraft type. The CIRCM B-Kit is the mission kit (laser, pointer tracker, and controller) required to achieve near spherical coverage for an aircraft.

Justification:
There is no Fiscal Year (FY) 2015 Base RDT&E dollar funding requirement for VU8. FY15 justification is reported under EB4.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Development Efforts	39.548	110.891	-
Articles:	-	-	-
Description: RDT&E dollars begin the design and development of the CIRCM system.			
FY 2013 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU8 / *Common Infrared Counter Measure*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
RDT&E dollars support the CIRCM Technology Development (TD) phase and begin preparation for the EMD phase. ***FY 2014 Plans:*** RDT&E dollars support completion of the TD phase and bridge activity, initiation of the EMD phase, prototype manufacturing for seven prototypes, development testing, and platform integration in FY 2015. FY14 funding of $17.8M completes PM's investment in the I2WD SCEPTRE Lab. SCEPTRE consolidates capabilities of the LITE Lab and GWEF into one streamlined testing capability. SCEPTRE reduces program schedule risk and out year test support costs, per Cost Benefit Analysis. "Other Testing" includes funds to acquire test threat assets.			
Accomplishments/Planned Programs Subtotals	39.548	110.891	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• .: *APA Funding: APA, BA 4, AZ3537 (CIRCM)*	-	-	-	-	-	-	51.417	100.409	157.627	Continuing	Continuing

Remarks

D. Acquisition Strategy

The December 28, 2011 DAE ADM authorized entry into the Technology Development (TD) phase, designated the program a pre-Major Defense Acquisition Program (MDAP), and approved the updated exit criteria. After a full and open competition beginning in the second quarter of Fiscal Year 2011 (FY11), two contractors were selected and awarded Technology Development contracts on January 31, 2012 for the CIRCM. The CIRCM contract awards were followed by a contractor protest which resulted in a work stoppage of 100 days. Government Accountability Office (GAO) ruled in favor of the Government on all counts and the effort was re-initiated on May 23, 2012. CIRCM will continue pre-MS B activities and initiate a competitive procurement for EMD in the third quarter of FY14. MS B approval is anticipated in first quarter of FY15, followed by award of the EMD contract in the second quarter of FY15 to one vendor. The EMD contract will include priced options for Low Rate Initial Production (LRIP) 1 and 2, Engineering Support, A-Kit development for other aircraft, a Technical Data Package (TDP) (which will enable competition for Full Rate Production (FRP)), and Defense Exportability Features (DEF). Upon CIRCM MS C approval in the second quarter of FY17, the LRIP and Engineering Support options may be exercised and the program may immediately enter the Production & Deployment phase. Currently, the Product Manager (PdM) Countermeasures intends to pursue competition for the award of a fixed price contract for CIRCM FRP if the option is exercised to procure the TDP.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VU8 / *Common Infrared Counter Measure*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering Program Management (SEPM)	Various	PM ASE, HSV, AL : -	0.171	3.856		10.605		-		-		-	Continuing	Continuing	Continuing
Data	TBD	Various : -	0.000	-		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.171	3.856		10.605		-		-		-	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Non-Recurring Engineering (NRE)	C/CPFF	Various : -	0.000	-		6.798	Jan 2015	-		-		-	Continuing	Continuing	Continuing
TD Bridge Activity	C/CPFF	Various : -	0.000	-		11.615	Mar 2014	-		-		-	Continuing	Continuing	Continuing
Prototype Manufacturing	C/FFP	Various : -	0.000	-		19.453	Jan 2015	-		-		-	Continuing	Continuing	Continuing
Development Facilities	Various	Various : -	0.000	-		17.800		-		-		-	Continuing	Continuing	Continuing
Other R&D	Various	Various : -	0.000	8.015		7.770		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.000	8.015		63.436		-		-		-	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Equipment	Various	Various : -	0.000	-		0.100		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.000	-		0.100		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VU8 / *Common Infrared Counter Measure*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government System Testing & Evaluation	Various	CECOM - I2WD APG MD : -	0.000	9.254		8.131		-		-		-	Continuing	Continuing	Continuing
Other Testing	Various	CECOM - I2WD APG MD : -	0.000	18.423		28.619		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.000	27.677		36.750		-		-		-	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.171	39.548		110.891		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU8 / *Common Infrared Counter Measure*

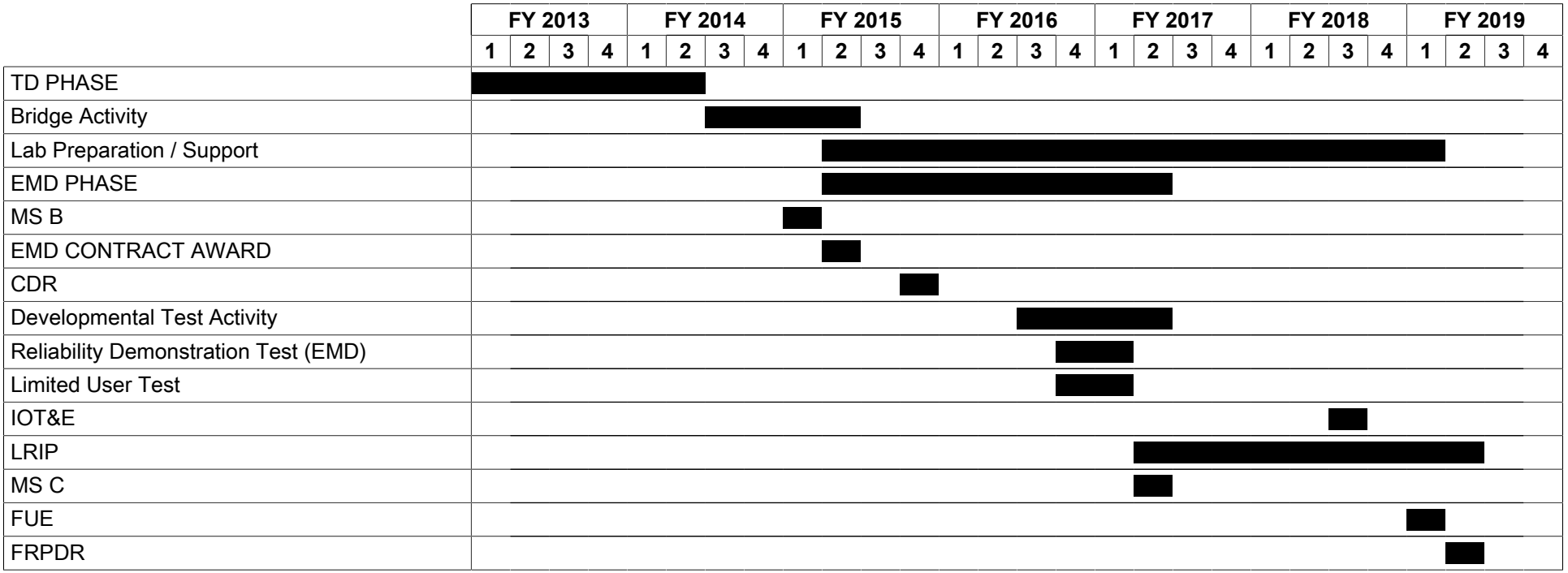

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU8 / *Common Infrared Counter Measure*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
TD PHASE	3	2012	2	2014
Bridge Activity	3	2014	2	2015
Lab Preparation / Support	2	2015	1	2019
EMD PHASE	2	2015	2	2017
MS B	1	2015	1	2015
EMD CONTRACT AWARD	2	2015	2	2015
CDR	4	2015	4	2015
Developmental Test Activity	3	2016	2	2017
Reliability Demonstration Test (EMD)	4	2016	1	2017
Limited User Test	4	2016	1	2017
IOT&E	3	2018	3	2018
LRIP	2	2017	2	2019
MS C	2	2017	2	2017
FUE	1	2019	1	2019
FRPDR	2	2019	2	2019

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604280A / *Joint Tactical Radio*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	-	31.809	9.832	-	9.832	4.546	-	-	-	-	46.187
162: *Network Enterprise Domain (NED)*	-	-	26.203	-	-	-	-	-	-	-	-	26.203
DZ5: *Handheld, Manpack and Small Form Fit (JTRS HMS)*	-	-	5.606	9.832	-	9.832	4.546	-	-	-	-	19.984

The FY 2015 OCO Request will be submitted at a later date.

Note

FY2014 funding decrease represents a small adjustment to budget numbers, no significant impact. FY2015 funding provided in order to fund testing for the Manpack and Rifleman Radio full and open competition contracts in support of Full Rate Production.

A. Mission Description and Budget Item Justification

Handheld, Manpack, and Small Form Fit (HMS) is a materiel solution meeting the requirements for a Software Communications Architecture (SCA) compliant hardware system hosting SCA-compliant Government purpose rights software waveforms (applications). HMS is an Acquisition Category (ACAT) ID Program that encompasses specific requirements to support the Special Operations Command (SOCOM), US Army, US Marine Corps, US Air Force and the US Navy communication needs.

HMS provides voice and data communications to the tactical edge/most disadvantaged Warfighter with an on the move, at the halt, and stationary Line of Sight (LOS)/ Beyond Line of Sight (BLOS) capability for both dismounted personnel and platforms. HMS radios are software re-programmable, networkable multi-mode system (of systems) capable of simultaneous voice, data and video communications. The embedded Small Form Factor (SFF) versions of HMS will be used for Unmanned Vehicles and other platform applications.

HMS is structured as a single program of record with two phases of development. Phase 1 developed the AN/PRC-154 Rifleman Radio, SFF-A (one and two channel) and SFF-D radios for use in a sensitive but unclassified environment. Phase 2 developed the AN/PRC-155 Manpack and embedded SFF-B, both of which are compliant for use in a classified environment. The AN/PRC-154 Rifleman Radio was modified via an engineering change proposal (ECP) to leverage advances in technology to provide the AN-PRC-154A encrypted secret and below capable radio. Waveforms to be ported to HMS Manpack include: SRW, Single Channel Ground to Air Radio System (SINCGARS), Satellite Communications (SATCOM), and Mobile-User Objective System (MUOS).

The FY 2015 budget will provide funding that is necessary to execute the required full and open competition contract strategy for the Rifleman and Manpack products. Specifically, the funding is needed to conduct Qualification Tests for both radios and and the Rifleman Radio Operational Assessment of the candidate products to demonstrate compliance with program requirements; assess effectiveness, suitability, and survivability; and to obtain material release. The funding will also support safety, spectrum supportability, and other certifications necessary to prepare the products for fielding.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*		R-1 Program Element (Number/Name) PE 0604280A / *Joint Tactical Radio*			
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	-	31.826	0.647	-	0.647
Current President's Budget	-	31.809	9.832	-	9.832
Total Adjustments	-	-0.017	9.185	-	9.185
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-0.017	9.185	-	9.185

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604280A / *Joint Tactical Radio*				Project (Number/Name) 162 / *Network Enterprise Domain (NED)*			
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
162: *Network Enterprise Domain (NED)*	-	-	26.203	-	-	-	-	-	-	-	-	26.203
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

Prior to FY 2014, JTRS HMS was funded under Program Element (PE) 0604280N aligned under the Navy Joint Tactical Radio System (JTRS) Programs. In accordance with the Acquisition Decision Memorandum (ADM) dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to a Military Department-managed program. JTRS HMS is now associated with Army Program Executive Office Command, Control and Communications-Tactical (PEO C3T) under Project Manager Tactical Radios (PM TR) PE 0604280A.

FY 2014 HMS funding is shared between Budget Items DZ5 and 162 under PE 0604280A; FY 2015-2016 HMS funding is in Budget Item DZ5 only.

A. Mission Description and Budget Item Justification

Handheld, Manpack, and Small Form Fit (HMS) is a materiel solution meeting the requirements for a Software Communications Architecture (SCA) compliant hardware system hosting SCA-compliant Government purpose rights software waveforms (applications). HMS is an Acquisition Category (ACAT) ID Program that encompasses specific requirements to support the Special Operations Command (SOCOM), US Army, US Marine Corps, US Air Force and the US Navy communication needs.

HMS provides voice and data communications to the tactical edge/most disadvantaged Warfighter with an on the move, at the halt, and stationary Line of Sight (LOS)/ Beyond Line of Sight (BLOS) capability for both dismounted personnel and platforms. HMS radios are software re-programmable, networkable multi-mode system (of systems) capable of simultaneous voice, data and video communications. The embedded Small Form Factor (SFF) versions of HMS will be used for Unmanned Vehicles and other platform applications.

HMS is structured as a single program of record with two phases of development. Phase 1 developed the AN/PRC-154 Rifleman Radio, SFF-A (one and two channel) and SFF-D radios for use in a sensitive but unclassified environment. Phase 2 developed the AN/PRC-155 Manpack and embedded SFF-B, both of which are compliant for use in a classified environment. The AN/PRC-154 Rifleman Radio was modified via an engineering change proposal (ECP) to leverage advances in technology to provide the AN-PRC-154A encrypted secret and below capable radio. Waveforms to be ported to HMS Manpack include: SRW, Single Channel Ground to Air Radio System (SINCGARS), Satellite Communications (SATCOM), and Mobile-User Objective System (MUOS).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: JTRS Network Enterprise Domain	-	26.203	-
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604280A / *Joint Tactical Radio*	**Project (Number/Name)** 162 / *Network Enterprise Domain (NED)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Handheld, Manpack, and Small Form Fit (HMS) is a materiel solution meeting the requirements for a Software Communications Architecture (SCA) compliant hardware system hosting SCA-compliant Government purpose rights software waveforms (applications). HMS is an Acquisition Category (ACAT) ID Program that encompasses specific requirements to support the Special Operations Command (SOCOM), US Army, US Marine Corps, US Air Force and the US Navy communication needs. HMS provides voice and data communications to the tactical edge/most disadvantaged Warfighter with an on the move, at the halt, and stationary Line of Sight (LOS)/ Beyond Line of Sight (BLOS) capability for both dismounted personnel and platforms. HMS radios are software re-programmable, networkable multi-mode system (of systems) capable of simultaneous voice, data and video communications. The embedded Small Form Factor (SFF) versions of HMS will be used for Unmanned Vehicles and other platform applications. HMS Increment 1 is structured as a single program of record with two phases of development. Increment 1, Phase 1 developed the AN/PRC-154 Rifleman Radio, SFF-A (one and two channel) and SFF-D radios for use in a sensitive but unclassified environment. Increment 1, Phase 2 developed the AN/PRC-155 Manpack and embedded SFF-B, both of which are compliant for use in a classified environment. The AN/PRC-154 Rifleman Radio was modified via an engineering change proposal (ECP) to leverage advances in technology to provide the AN-PRC-154A encrypted secret and below capable radio. Waveforms to be ported to HMS Manpack include: SRW, Single Channel Ground to Air Radio System (SINCGARS), Satellite Communications (SATCOM), and Mobile-User Objective System (MUOS). ***FY 2014 Plans:*** Complete Phase 2 Government Developmental Test (GDT) and development efforts; Receive Information Assurance certification for Phase 2 radios with Mobile User Objective System (MUOS) capability; Perform GDT, including the participation in the Navy MUOS End to End Demonstration, and Multiservice Operational Test & Evaluation (MOTE) with MUOS waveform on the Manpack; Complete Phase 1 Operational Test; Complete Phase 2 Follow-on Operational Test & Evaluation (FOT&E); and provide technical and engineering support for development efforts including preparing for Full Rate Production (FRP) for Phase 1 & 2.			
Accomplishments/Planned Programs Subtotals	-	26.203	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OPA: B90210: *JTRS Cluster 5 (Handheld)*	40.278	34.200	35.200	-	35.200	49.200	64.175	63.394	107.954	-	394.401
• OPA: B90215: *JTRS (Manpack)*	251.489	315.800	140.511	-	140.511	333.515	317.323	329.615	443.102	-	2,131.355

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604280A / *Joint Tactical Radio*	**Project (Number/Name)** 162 / *Network Enterprise Domain (NED)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost

Remarks

HMS RDTE funding for FY 2013 and prior can be found under Program Element (PE) 0604280N, Budget Submission BA5 aligned under the Navy Joint Tactical Radio System (JTRS) Programs. HMS procurement funding for FY 2014 and prior can be found under Standard Study Number (SSN) B90210 JTRS Cluster 5 (Handheld) and SSN B90215 JTRS (Manpack).

President's Budget (PB) FY 2013 included the following programs' funding in Budget Item 162: Network Enterprise Domain (NED), Handheld Manpack Small Form Fit (HMS), Airborne Maritime Fixed (AMF), and Multifunctional Information Distribution System (MIDS). At the time of PB 2014, all programs associated with this line with the exception of JTRS HMS have been moved to their own PE lines. NED program has been moved to PE 0605030A along with the amount of $23.621 million, AMF program has been moved to PE 0605380A along with the amount of $30.719 million, MIDS program has been moved to PE 0205604N along with the amount of $1.236 million. JTRS HMS currently owns PE 0604280A and both associated Project Codes under it: 162 Network Enterprise Domain (NED) and DZ5 Handheld Manpack and Small Form Fit (HMS). Starting in FY 2015, all future funding requests for JTRS HMS will be included in Project Code DZ5.

D. Acquisition Strategy

This project supports completion of the HMS Engineering and Manufacturing Development phase efforts and execution of the HMS acquisition strategy to procure modified non-developmental items (NDI) through full and open competition open to all potential industry partners. The HMS Program received Milestone (MS) C approval on 17 June 2011. The HMS modified NDI acquisition strategy will deliver NSA certified capabilities. Following full and open competition, qualified NDI Rifleman and Manpack radios will require operationally-relevant testing to inform a FRP decision and to support fielding to Capability Set (CS) units. The contract will be Firm Fixed Price (FFP). The minimum set of waveforms to be supported on the HMS Manpack include: Satellite Communications (SATCOM), Soldier Radio Waveform (SRW), Mobile User Objective System (MUOS), and Single Channel Ground to Air Radio System (SINCGARS) waveforms.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604280A / *Joint Tactical Radio*	Project (Number/Name) 162 / *Network Enterprise Domain (NED)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Office Support	Various	PEO C3T & CECOM: : APG, MD	0.000	-		1.193		-		-		-	-	1.193	1.193
		Subtotal	0.000	-		1.193		-		-		-	-	1.193	1.193

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
HMS JTRS System, Design & Development	C/CPAF	General Dynamics C4 Systems: : Scottsdale, AZ	0.000	-		7.715		-		-		-	-	7.715	7.715
		Subtotal	0.000	-		7.715		-		-		-	-	7.715	7.715

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
HMS JTRS Engineering/ Technical Support	Various	PEO C3T, ARL, ESP, CECOM, CERDEC, LCMC, Various: : APG, MD; Various	0.000	-		5.000		-		-		-	-	5.000	5.000
		Subtotal	0.000	-		5.000		-		-		-	-	5.000	5.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Follow On Delta Development & Testing	Various	EPG, AEC, MBL, ARLSLAD, CERDEC, OTC, JITC: : Ft. Benning,	0.000	-		12.295		-		-		-	-	12.295	12.295

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604280A / *Joint Tactical Radio*	Project (Number/Name) 162 / *Network Enterprise Domain (NED)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		GA; APG, MD; Various													
		Subtotal	0.000	-		12.295		-		-		-	-	12.295	12.295

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		26.203		-		-		-	-	26.203	26.203

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604280A / *Joint Tactical Radio*	**Project (Number/Name)** 162 / *Network Enterprise Domain (NED)*

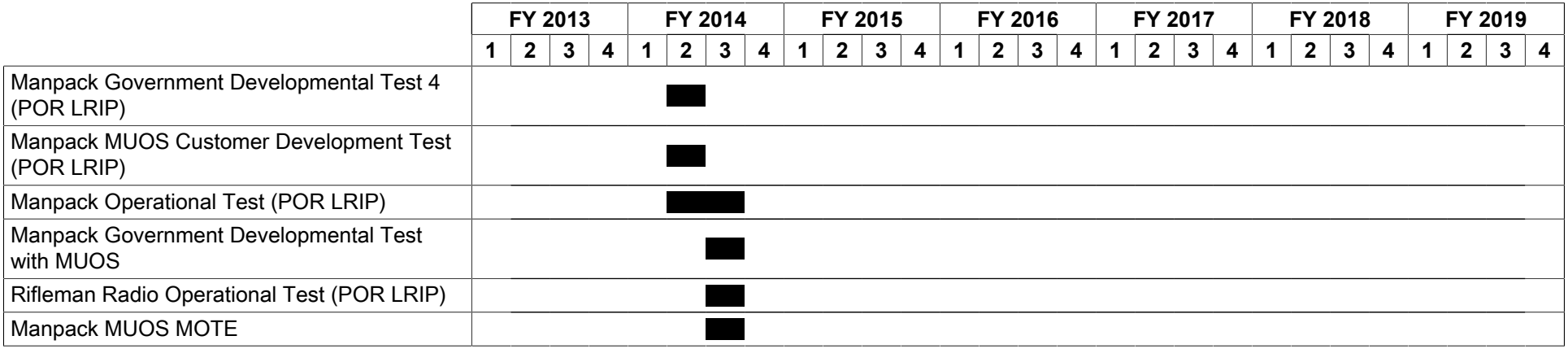

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604280A / *Joint Tactical Radio*	**Project (Number/Name)** 162 / *Network Enterprise Domain (NED)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Manpack Government Developmental Test 4 (POR LRIP)	2	2014	2	2014
Manpack MUOS Customer Development Test (POR LRIP)	2	2014	2	2014
Manpack Operational Test (POR LRIP)	2	2014	3	2014
Manpack Government Developmental Test with MUOS	3	2014	3	2014
Rifleman Radio Operational Test (POR LRIP)	3	2014	3	2014
Manpack MUOS MOTE	3	2014	3	2014

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604280A / *Joint Tactical Radio*	Project (Number/Name) DZ5 / *Handheld, Manpack and Small Form Fit (JTRS HMS)*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DZ5: *Handheld, Manpack and Small Form Fit (JTRS HMS)*	-	-	5.606	9.832	-	9.832	4.546	-	-	-	-	19.984
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

Prior to FY 2014, JTRS HMS was funded under Program Element (PE) 0604280N aligned under the Navy Joint Tactical Radio System (JTRS) Programs. In accordance with the Acquisition Decision Memorandum (ADM) dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to a Military Department-managed program. JTRS HMS is now associated with Army Program Executive Office Command, Control and Communications-Tactical (PEO C3T) under Project Manager Tactical Radios (PM TR) PE 0604280A.

FY 2014 HMS funding is shared between Budget Items DZ5 and 162 under PE 0604280A; FY 2015-2016 HMS funding is in Budget Item DZ5 only.

A. Mission Description and Budget Item Justification

Handheld, Manpack, and Small Form Fit (HMS) is a materiel solution meeting the requirements for a Software Communications Architecture (SCA) compliant hardware system hosting SCA-compliant Government purpose rights software waveforms (applications). HMS is an Acquisition Category (ACAT) ID Program that encompasses specific requirements to support the Special Operations Command (SOCOM), US Army, US Marine Corps, US Air Force and the US Navy communication needs.

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HMS is structured as a single program of record with two phases of development. Phase 1 developed the AN/PRC-154 Rifleman Radio, SFF-A (one and two channel) and SFF-D radios for use in a sensitive but unclassified environment. Phase 2 developed the AN/PRC-155 Manpack and embedded SFF-B, both of which are compliant for use in a classified environment. The AN/PRC-154 Rifleman Radio was modified via an engineering change proposal (ECP) to leverage advances in technology to provide the AN-PRC-154A encrypted secret and below capable radio. Waveforms to be ported to HMS Manpack include: SRW, Single Channel Ground to Air Radio System (SINCGARS), Satellite Communications (SATCOM), and Mobile-User Objective System (MUOS).

The FY 2015 budget will provide funding that is necessary to execute the required full and open competition contract strategy for the Rifleman and Manpack products. Specifically, the funding is needed to conduct Qualification Tests for both radios and and the Rifleman Radio Operational Assessment of the candidate products to

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604280A / *Joint Tactical Radio*	**Project (Number/Name)** DZ5 / *Handheld, Manpack and Small Form Fit (JTRS HMS)*

demonstrate compliance with program requirements; assess effectiveness, suitability, and survivability; and to obtain material release. The funding will also support safety, spectrum supportability, and other certifications necessary to prepare the products for fielding.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: HMS JTRS	-	5.606	9.832
Articles:	-	-	-

Description: Handheld, Manpack, and Small Form Fit (HMS) is a materiel solution meeting the requirements for a Software Communications Architecture (SCA) compliant hardware system hosting SCA-compliant Government purpose rights software waveforms (applications). HMS is an Acquisition Category (ACAT) ID Program that encompasses specific requirements to support the Special Operations Command (SOCOM), US Army, US Marine Corps, US Air Force and the US Navy communication needs. HMS provides voice and data communications to the tactical edge/most disadvantaged Warfighter with an on the move, at the halt, and stationary Line of Sight (LOS)/ Beyond Line of Sight (BLOS) capability for both dismounted personnel and platforms. HMS radios are software re-programmable, networkable multi-mode system (of systems) capable of simultaneous voice, data and video communications. The embedded Small Form Factor (SFF) versions of HMS will be used for Unmanned Vehicles and other platform applications.
HMS Increment 1 is structured as a single program of record with two phases of development. Increment 1, Phase 1 developed the AN/PRC-154 Rifleman Radio, SFF-A (one and two channel) and SFF-D radios for use in a sensitive but unclassified environment. Increment 1, Phase 2 developed the AN/PRC-155 Manpack and embedded SFF-B, both of which are compliant for use in a classified environment. The AN/PRC-154 Rifleman Radio was modified via an engineering change proposal (ECP) to leverage advances in technology to provide the AN-PRC-154A encrypted secret and below capable radio. Waveforms to be ported to HMS Manpack include: SRW, Single Channel Ground to Air Radio System (SINCGARS), Satellite Communications (SATCOM), and Mobile-User Objective System (MUOS).

FY 2014 Plans:
Complete Phase 2 Government Developmental Test (GDT) and development efforts; Receive Information Assurance certification for Phase 2 radios with Mobile User Objective System (MUOS) capability; Perform GDT, including the participation in the Navy MUOS End to End Demonstration, and Multiservice Operational Test & Evaluation (MOTE) with MUOS waveform on the Manpack; Complete Phase 1 Operational Test; Complete Phase 2 Follow-on Operational Test & Evaluation (FOT&E); and provide technical and engineering support for development efforts including preparing for Full Rate Production (FRP) for Phase 1 & 2.

FY 2015 Plans:
The FY 2015 budget will provide funding that is necessary to execute the required full and open competition contract strategy for the Rifleman and Manpack products. Specifically, the funding is needed to conduct Qualification Tests for both radios and and the Rifleman Radio Operational Assessment of the candidate products to demonstrate compliance with program requirements;

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604280A / *Joint Tactical Radio*	**Project (Number/Name)** DZ5 / *Handheld, Manpack and Small Form Fit (JTRS HMS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
assess effectiveness, suitability, and survivability; and to obtain material release. The funding will also support safety, spectrum supportability, and other certifications necessary to prepare the products for fielding.			
Accomplishments/Planned Programs Subtotals	-	5.606	9.832

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OPA: B90210: *JTRS Cluster 5 (Handheld)*	40.278	34.200	35.200	-	35.200	49.200	64.175	63.394	107.954	-	394.401
• OPA: B90215: *JTRS (Manpack)*	251.489	315.800	140.511	-	140.511	333.515	317.323	329.615	443.102	-	2,131.355

Remarks

HMS RDTE funding for FY 2013 and prior can be found under Program Element (PE) 0604280N, Budget Submission BA5 aligned under the Navy Joint Tactical Radio System (JTRS) Programs. HMS procurement funding for FY 2014 and prior can be found under Standard Study Number (SSN) B90210 JTRS Cluster 5 (Handheld) and SSN B90215 JTRS (Manpack).

D. Acquisition Strategy

This project supports completion of the HMS Engineering and Manufacturing Development phase efforts and execution of the HMS acquisition strategy to procure modified non-developmental items (NDI) through full and open competition open to all potential industry partners. The HMS Program received Milestone (MS) C approval on 17 June 2011. The HMS modified NDI acquisition strategy will deliver NSA certified capabilities. Following full and open competition, qualified NDI Rifleman and Manpack radios will require operationally-relevant testing to inform a FRP decision and to support fielding to Capability Set (CS) units. The contract will be Firm Fixed Price (FFP). The minimum set of waveforms to be supported on the HMS Manpack include: Satellite Communications (SATCOM), Soldier Radio Waveform (SRW), Mobile User Objective System (MUOS), and Single Channel Ground to Air Radio System (SINCGARS) waveforms.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604280A / *Joint Tactical Radio*	Project (Number/Name) DZ5 / *Handheld, Manpack and Small Form Fit (JTRS HMS)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Office Support	Various	PEO C3T & CECOM: : APG, MD	0.000	-		0.255		0.265		-		0.265	0.208	0.728	0.728
		Subtotal	0.000	-		0.255		0.265		-		0.265	0.208	0.728	0.728

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
HMS JTRS System, Design & Development	C/CPAF	General Dynamics D4 Systems: : Scottsdale, AZ	0.000	-		1.650		-		-		-	-	1.650	1.650
		Subtotal	0.000	-		1.650		-		-		-	-	1.650	1.650

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
HMS JTRS Engineering/ Technical Support	Various	PEO C3T, ARL, ESP, CECOM, CERDEC, LCMC, Various: : APG, MD; Various	0.000	-		1.070		1.113		-		1.113	1.090	3.273	3.273
		Subtotal	0.000	-		1.070		1.113		-		1.113	1.090	3.273	3.273

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Follow on Delta Development & Testing	Various	EPG, AEC, MBL, ARLSLAD, CERDEC, OTC, JITC, Various: : Ft	0.000	-		2.631		8.454		-		8.454	3.248	14.333	14.333

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604280A / *Joint Tactical Radio*	Project (Number/Name) DZ5 / *Handheld, Manpack and Small Form Fit (JTRS HMS)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Huachuca, AZ; Ft Benning, GA; APG, MD; Various													
		Subtotal	0.000	-		2.631		8.454		-		8.454	3.248	14.333	14.333

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		5.606		9.832		-		9.832	4.546	19.984	19.984

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604280A / *Joint Tactical Radio*	**Project (Number/Name)** DZ5 / *Handheld, Manpack and Small Form Fit (JTRS HMS)*

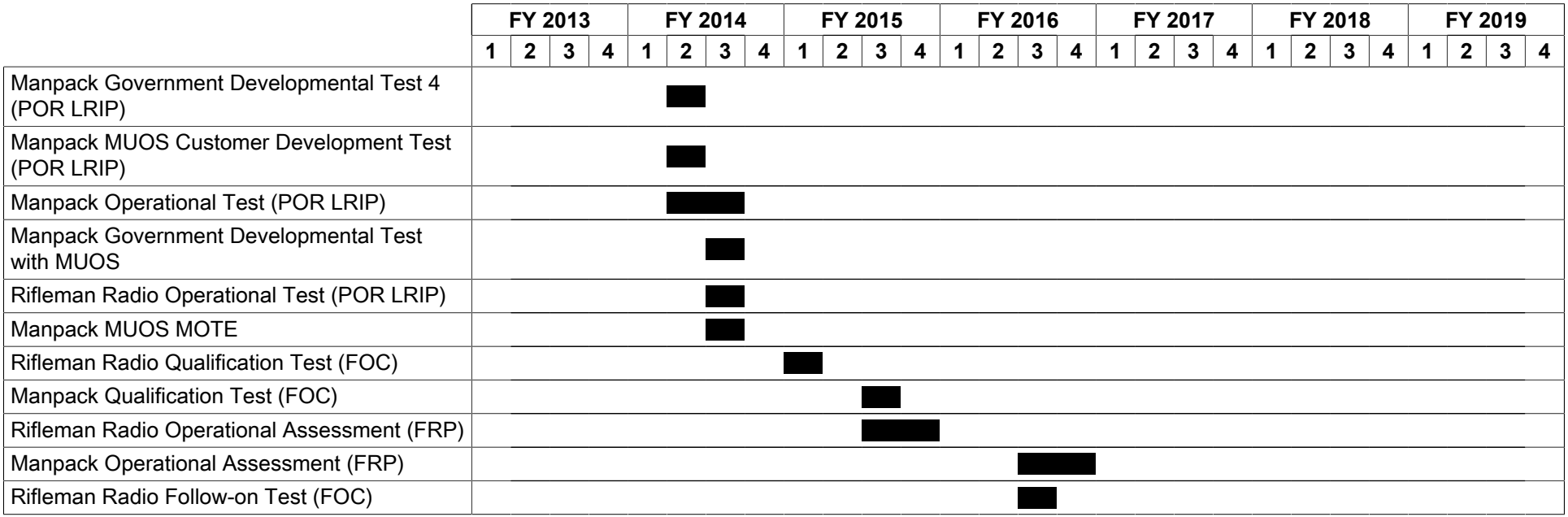

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604280A / *Joint Tactical Radio*	**Project (Number/Name)** DZ5 / *Handheld, Manpack and Small Form Fit (JTRS HMS)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Manpack Government Developmental Test 4 (POR LRIP)	2	2014	2	2014
Manpack MUOS Customer Development Test (POR LRIP)	2	2014	2	2014
Manpack Operational Test (POR LRIP)	2	2014	3	2014
Manpack Government Developmental Test with MUOS	3	2014	3	2014
Rifleman Radio Operational Test (POR LRIP)	3	2014	3	2014
Manpack MUOS MOTE	3	2014	3	2014
Rifleman Radio Qualification Test (FOC)	1	2015	1	2015
Manpack Qualification Test (FOC)	3	2015	3	2015
Rifleman Radio Operational Assessment (FRP)	3	2015	4	2015
Manpack Operational Assessment (FRP)	3	2016	4	2016
Rifleman Radio Follow-on Test (FOC)	3	2016	3	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604290A *I Mid-tier Networking Vehicular Radio (MNVR)*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	2.556	23.328	9.730	-	9.730	-	-	-	-	-	35.614
DW1: *Mid-Tier Wideband Networking Vehicular Radio Mnvr*	-	2.556	23.328	9.730	-	9.730	-	-	-	-	-	35.614

The FY 2015 OCO Request will be submitted at a later date.

Note

FY13 RDTE: A Congressional mark of -$10M was realized; program was funded $2.636M. Sequestration reduced program funding further to $2.556M.

A. Mission Description and Budget Item Justification

Product Manager Mid-tier Networking Vehicular Radios (MNVR) provides software-defined, multi-channel networking radios for a wide variety of Army tactical vehicles to meet the Army's requirement for the Mid-tier Wideband Networking (MWN) capability. The MNVR provides self-forming and self-healing communication networks from the brigade to the platoon level throughout the full range of military operations.

The Mid-tier Networking Vehicular Radio (MNVR), a modified Non-Developmental (NDI), is a multi-channel, Type 1 (supporting multiple independent levels of security), vehicular mounted radio hosting networking waveforms, Wideband Networking Waveform (WNW) and Solider Radio Waveform (SRW), respectively, which support Army Mission Command operational requirements. The MNVR narrows the data capability gap at the Brigade Combat Team (BCT) company level and provides the capability to build a data extension to the lowest echelons, and then enables the extension of services from the Forward Operating Base (FOB) to the platform. MNVR provides a dynamic, scalable, On-the-Move (OTM) network architecture, connecting the Soldier to the Mission Command (MC) Network and enhances capability to exchange voice and data simultaneously and faster than current systems. The advanced network waveforms provide rapid distribution of data and imagery with increased information assurance protection and automatic routing across complex terrain. The system will operate Internet Protocol (IP) based networking waveforms offering increased data throughput through self-forming, self-healing, managed communication networks. It's route and retransmit functionality links waveforms in different frequency bands, within the 2 Megahertz (MHz) to 2 Gigahertz (GHz), to form one coherent network.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	12.636	23.341	9.897	-	9.897
Current President's Budget	2.556	23.328	9.730	-	9.730
Total Adjustments	-10.080	-0.013	-0.167	-	-0.167
• Congressional General Reductions	-10.000	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Sequestration Adjustment	-0.080	-	-	-	-
• Army Adjustment	-	-0.013	-0.167	-	-0.167

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*	Project (Number/Name) DW1 / *Mid-Tier Wideband Networking Vehicular Radio Mnvr*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DW1: *Mid-Tier Wideband Networking Vehicular Radio Mnvr*	-	2.556	23.328	9.730	-	9.730	-	-	-	-	-	35.614
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

The Mid-tier Networking Vehicular Radio (MNVR) is a modified Non-Developmental Item (NDI) industry solution for a multi-channel vehicular radio hosting networking waveforms, addressing the Army's requirement for Mid-tier Wideband Networking (MWN) capabilities to support the Warfighter by providing an extension of data services from the upper tactical network at brigade and battalion to the lower tactical network at company and platoon echelon platforms. Source Selection has been awarded on a full and open competition, single award, Indefinite Delivery Indefinite Quantity (IDIQ), firm fixed price, 3-year ordering period. Production ramp up for 232 radios for Test & Evaluation and certification purposes began in 1QFY14. 45-107 radios will be procured for Initial Operational Test & Evaluation (IOT&E) after Milestone C (MS C) decision is made in 2QFY15.

A. Mission Description and Budget Item Justification

Product Manager Mid-tier Networking Vehicular Radios (MNVR) provides software-defined, multi-channel networking radios for a wide variety of Army tactical vehicles to meet the Army's requirement for the Mid-tier Wideband Networking (MWN) capability. The MNVR provides self-forming and self-healing communication networks from the brigade to the platoon level throughout the full range of military operations.

The Mid-tier Networking Vehicular Radio (MNVR), a modified Non-Developmental (NDI), is a multi-channel, Type 1 (supporting multiple independent levels of security), vehicular mounted radio hosting networking waveforms, Wideband Networking Waveform (WNW) and Solider Radio Waveform (SRW), respectively, which support Army Mission Command operational requirements. The MNVR narrows the data capability gap at the Brigade Combat Team (BCT) company level and provides the capability to build a data extension to the lowest echelons, and then enables the extension of services from the Forward Operating Base (FOB) to the platform. MNVR provides a dynamic, scalable, On-the-Move (OTM) network architecture, connecting the Soldier to the Mission Command (MC) Network and enhances capability to exchange voice and data simultaneously and faster than current systems. The advanced network waveforms provide rapid distribution of data and imagery with increased information assurance protection and automatic routing across complex terrain. The system will operate Internet Protocol (IP) based networking waveforms offering increased data throughput through self-forming, self-healing, managed communication networks. It's route and retransmit functionality links waveforms in different frequency bands, within the 2 Megahertz (MHz) to 2 Gigahertz (GHz), to form one coherent network.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Mid-tier Networking Vehicular Radio (MNVR) Product	2.556	23.328	9.730
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*	**Project (Number/Name)** DW1 / *Mid-Tier Wideband Networking Vehicular Radio Mnvr*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: RDTE funding supports program management efforts of Source Selection of industry solution for a modified Non-Developmental Item (NDI), radio contract development, test & certification efforts through Limited User Test (LUT), and the start of platform integration. Of note: Program received late-year Above Threshold Reprogramming (ATR) in the amount of $47M in FY12 RDTE. These funds were executed against FY13 requirements. ***FY 2013 Accomplishments:*** A Congressional mark of $10M was realized; program was funded $2.636M. Sequestration reduced program funding down to $2.556M. Remaining FY 2013 RDTE combined with late-year ATR FY12 RDTE funding supported the Program Office plan to complete Source Selection, let the contract for the modified NDI radios, and prepare for a Demonstration, the product's first risk reduction activity, at NIE 14.2. The MNVR Capabilities Production Document (CPD) was approved by JROCM in May 2013. An ADM was signed on 20 September 2013 by the Defense Acquisition Executive (DAE), approving a Materiel Development Decision (MDD). The ADM designated MNVR as an ACAT 1D Special Interest Program under the continued oversight of the DAE, approved Army to award Industry contract, and authorized the purchase of 232 modified NDI radios for Test & Evaluation and Certification purposes in order to inform a MS C decision in 2QFY15. Program completed Source Selection and awarded the contract for procurement of 232 radios on 24 September 2013. ***FY 2014 Plans:*** FY 2014 funding supports program management, test and evaluation and system security certification activities to execute the modified Non-Developmental Item (NDI) strategy for a mid-tier networking vehicular capability. Activities include Government Integration Testing (GIT), a Demonstration at Network Integration Event (NIE) 14.2, and Government Regression Testing (GRT), all as risk reduction activities in support of Limited User Test (LUT) in 1QFY15. FY 2014 funding also supports management of first delivery order production for test & certification, and platform integration efforts. ***FY 2015 Plans:*** FY 2015 supports program management costs, continued test and evaluation and system security certification activities needed to execute the modified Non-Developmental Item (NDI) strategy for a mid-tier networking vehicular capability. Test activities include Limited User Test (LUT) and a Logistics Demonstration in support of sustainment. FY 2015 funding also supports management of the second production delivery order for test & certification, and preparation for sustainment efforts. Of note, once program receives MS C decision, OPA funding will support fielding procurement and continued program management costs as program readies for fielding to CS 17 & 18.			
Accomplishments/Planned Programs Subtotals	2.556	23.328	9.730

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*	**Project (Number/Name)** DW1 / *Mid-Tier Wideband Networking Vehicular Radio Mnvr*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• B51001: *Mid-tier Networking Vehicular Radio (MNVR)*	86.105	19.200	9.692	-	9.692	2.929	2.945	2.941	2.951	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Mid-tier Networking Vehicular Radio (MNVR) is a modified Non-Developmental Item (NDI) industry solution for a multi-channel vehicular radio hosting networking waveforms, addressing the Army's requirement for Mid-tier Wideband Networking (MWN) capabilities to support the Warfighter by providing an extension of data services from the upper tactical network at brigade and battalion to the lower tactical network at company and platoon echelon platforms. This approach takes advantage of competitively priced, mature and producible technology that meets technical specifications.

Decision Point 1 – 4QFY13: An ADM was signed on 20 September 2013 by the Defense Acquisition Executive (DAE), approving a Materiel Development Decision (MDD). The ADM designated MNVR as an ACAT 1D Special Interest Program under the continued oversight of the DAE, approved Army to award Industry contract, and authorized the purchase of up to 232 modified NDI radios for Test & Evaluation, Platform Integration and Certification purposes in order to inform a MS C decision in 2QFY15.

Decision Point 2 - 2QFY15: Program will provide all regulatory and statutory documentation in preparation for a Milestone C (MS C) decision, at which time program will move forward into Low Rate Initial Production (LRIP) and procure 45-107 radios in support of IOT&E, complete all testing and certifications, and complete platform integration.

Decision Point 3 – 2QFY16: After Initial Operational Test & Evaluation (IOT&E) is successfully completed, the program will move forward to the Full Rate Production decision to garner approval to field. DO 3 would then procure approximately 852 radio systems in support of fielding to CS 17-18.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*	Project (Number/Name) DW1 / *Mid-Tier Wideband Networking Vehicular Radio Mnvr*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/FFP	Aberdeen Proving Ground : Maryland	24.272	2.404		10.034		3.821		-		3.821	Continuing	Continuing	-
		Subtotal	24.272	2.404		10.034		3.821		-		3.821	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Development Analysis and Product Source Selection	C/FFP	Aberdeen Proving Ground : Maryland	12.298	0.113		1.890		-		-		-	Continuing	Continuing	-
		Subtotal	12.298	0.113		1.890		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Test and Evaluation	C/FFP	Aberdeen Proving Ground : Maryland	10.430	0.039		11.404		5.909		-		5.909	Continuing	Continuing	-
		Subtotal	10.430	0.039		11.404		5.909		-		5.909	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	47.000	2.556		23.328		9.730		-		9.730	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*	**Project (Number/Name)** DW1 / *Mid-Tier Wideband Networking Vehicular Radio Mnvr*

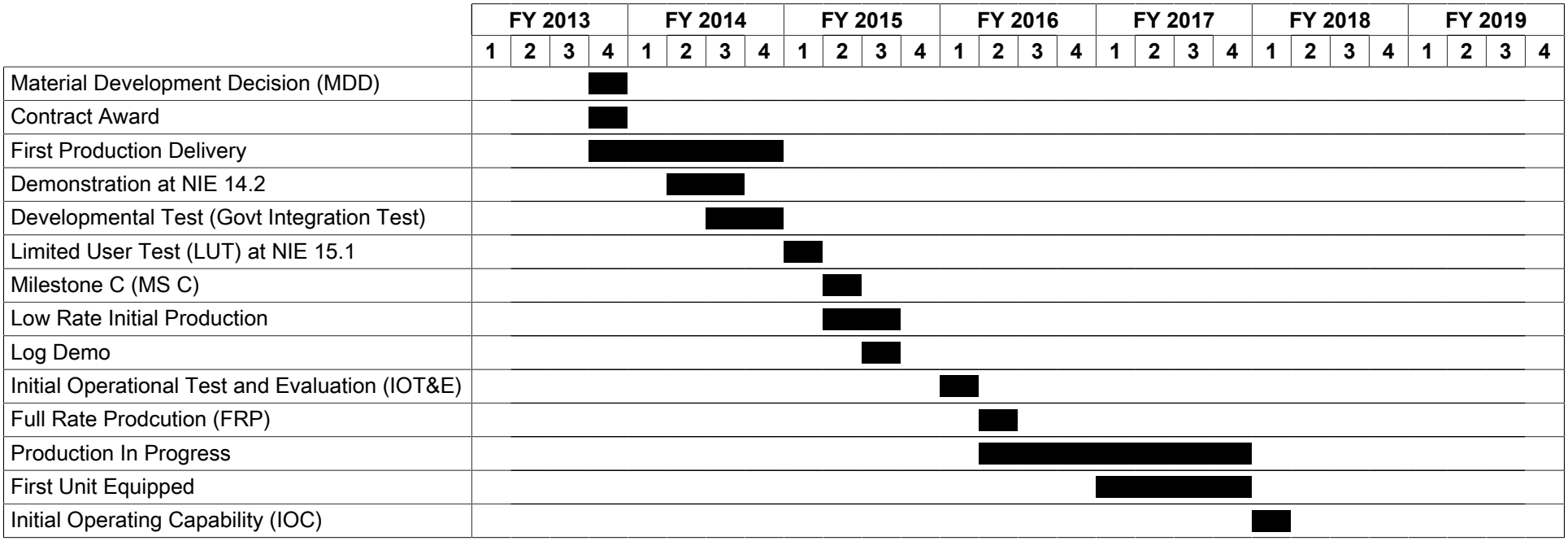

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*	**Project (Number/Name)** DW1 / *Mid-Tier Wideband Networking Vehicular Radio Mnvr*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Material Development Decision (MDD)	4	2013	4	2013
Contract Award	4	2013	4	2013
First Production Delivery	4	2013	4	2014
Demonstration at NIE 14.2	2	2014	3	2014
Developmental Test (Govt Integration Test)	3	2014	4	2014
Limited User Test (LUT) at NIE 15.1	1	2015	1	2015
Milestone C (MS C)	2	2015	2	2015
Low Rate Initial Production	2	2015	3	2015
Log Demo	3	2015	3	2015
Initial Operational Test and Evaluation (IOT&E)	1	2016	1	2016
Full Rate Prodcution (FRP)	2	2016	2	2016
Production In Progress	2	2016	4	2017
First Unit Equipped	1	2017	4	2017
Initial Operating Capability (IOC)	1	2018	1	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	5.601	4.837	5.532	-	5.532	2.374	1.349	1.372	1.415	Continuing	Continuing
B41: *CI/HUMINT Software Products (MIP)*	-	1.231	2.164	1.139	-	1.139	1.307	1.349	1.372	1.415	Continuing	Continuing
B51: *Machine - Foreign Language Translation System*	-	4.370	2.673	4.393	-	4.393	1.067	-	-	-	-	12.503

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The All Source Analysis System (ASAS) provided US Army commanders at all echelons from battalion to Army Service Component Command (ASCC) with automated support to the management and planning, processing and analysis, and dissemination of intelligence, counterintelligence, and electronic warfare. ASAS provided the means to enhance the commander's timely and comprehensive understanding of enemy deployments, capabilities, and potential courses of action. The system used standard joint and Army protocols and message formats to interface with selected National, joint, theater, and tactical intelligence, surveillance, and reconnaissance systems and preprocessors and Army, joint, and coalition battle command systems. The ASAS Family of Systems migrated into the Distributed Common Ground System-Army (DCGS-A) program and Army is using it as the initial platform to provide accelerated DCGS-A capabilities to the force.

The Counterintelligence (CI) and Human Intelligence (HUMINT) Automated Reporting and Collection System (CHARCS) is the Army's CI and HUMINT tactical collection and reporting system. CHARCS provides automation support for information collection, reporting, investigations, source & interrogation operations and document exploitation. The CHARCS automation architecture extends from the individual HUMINT team soldier or CI agent to the Corps Analysis and Control Element (ACE). CHARCS reports digital data such as maps, overlays, images, video, biometrics, scanned documents and audio files. These media are transmitted through secure networks and interfaces with the Distributed Common Ground Systems-Army (DCGS-A) for detailed analysis and creation of finished intelligence products. Collection and reporting teams at Military Intelligence (MI) battalions and their operational managers are equipped with one of two CHARCS systems. The first is the AN/PYQ-8 Individual Tactical Reporting Tool (ITRT) which provides collection and processing devices for individual HUMINT team member or CI agents. The second is the AN/PYQ-3 CI/HUMINT Automated Tool Set (CHATS) which provides the team leader (who normally directs 3-5 team members) tools to process and manage team-collected information and a robust set of devices such as printers, scanners, cameras and audio recorders to assist the collection mission. The CHATS is also used by Operational Management Team (OMT) (who normally directs 5-10 collection and reporting teams). Each CHATS has an associated Mission Support Peripheral Sets and Kits (MS-PSK) or Collection Peripheral Sets and Kits (C-PSK).

The Machine Foreign Language Translation System (MFLTS), formerly Sequoyah, develops, fields, and sustains a basic automated foreign speech and text translation capability for Army tactical systems to augment and compliment limited human linguistic resources. These integrated automated translation capabilities will be applicable across three different system configurations; a hand-held/wearable portable device, a laptop/mobile device, and in a networked/web-enabled system. The software modules will translate English from a prioritized list of languages in a prioritized collection of domains (e.g. medical, intelligence, base security). MFLTS will be

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army	Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*

interoperable with Commercial Off-The-Shelf (COTS) or Government Off-The-Shelf (GOTS) automation equipment to include the Distributed Common Ground System-Army (DCGS-A), Nett Warrior (NW), and Counterintelligence Human Intelligence Automated Reporting and Collection System (CHARCS).

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	5.694	4.839	7.238	-	7.238
Current President's Budget	5.601	4.837	5.532	-	5.532
Total Adjustments	-0.093	-0.002	-1.706	-	-1.706
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-0.093	-0.002	-1.706	-	-1.706

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	Project (Number/Name) B41 / *CI/HUMINT Software Products (MIP)*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
B41: *CI/HUMINT Software Products (MIP)*	-	1.231	2.164	1.139	-	1.139	1.307	1.349	1.372	1.415	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The Counterintelligence (CI) and Human Intelligence (HUMINT) Automated Reporting and Collection System (CHARCS) is the Army's CI and HUMINT tactical collection and reporting system. CHARCS provides automation support for information collection, reporting, investigations, source & interrogation operations and document exploitation. The CHARCS automation architecture extends from the individual HUMINT team soldier or CI agent to the Corps Analysis and Control Element (ACE). CHARCS reports digital data such as maps, overlays, images, video, biometrics, scanned documents and audio files. These media are transmitted through secure networks and interfaces with the Distributed Common Ground System-Army (DCGS-A) for detailed analysis and creation of finished intelligence products. Collection and reporting teams at Military Intelligence (MI) battalions and their operational managers are equipped with one of two CHARCS systems. The first is the AN/PYQ-8 Individual Tactical Reporting Tool (ITRT) which provides collection and processing devices for individual HUMINT team member or CI agents. The second is the AN/PYQ-3 CI/HUMINT Automated Tool Set (CHATS) which provides the team leader (who normally directs 3-5 team members) tools to process and manage team-collected information and a robust set of devices such as printers, scanners, cameras and audio recorders to assist the collection mission. The CHATS is also used by Operational Management Team (OMT) (who normally directs 5-10 collection and reporting teams). Each CHATS has an associated Mission Support Peripheral Sets and Kits (MS-PSK) or Collection Peripheral Sets and Kits (C-PSK).

The C-PSK provides specialized collection component capabilities to support CI/HUMINT collection missions. C-PSK capabilities are commercial-off-the-shelf (COTS) technologies and include video and camera equipment, global positioning system (GPS), voice recording device and infrared strobe lights. The MS-PSK provides specialized collection component capabilities to support CI/HUMINT collection missions at the OMT. MS-PSK capabilities are COTS technologies and include night vision photography & video, captured materiel tracking, Credibility Assessment Capability, Digital Media Forensics software, Document Exploitation software, and will interface with a handheld biometric capability for identification.

FY2015 Base amount of $1.139 million will fund CHARCS software increased performance, ease of use, incremental capability improvements, integration into Army Center of Excellence (schoolhouse), DIA policy updates, interoperability updates, testing for Army Inter-Operability Certification (AIC), Common Operating Environment (COE), Reliability Availability and Maintainability (RAM), and quality assurance, test/integration with DCGS-A, and preplanned product improvement of collection, force protection, and mission support capabilities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: RDTE: Software testing; increased SW performance capability; security accreditation; and HW integration of SW.	1.231	2.164	1.139
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	**Project (Number/Name)** B41 / *CI/HUMINT Software Products (MIP)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Software testing of v1.0.0.2 SP4, v1.0.4 and v1.0.5; increased SW performance capability; HW integration testing of CHARCS SW ***FY 2013 Accomplishments:*** FY2013 Base amount of $1.231 million funded additional tests of the CHARCS v1.4 baseline software, increased software performance capability, and DIA security updates and compliance. ***FY 2014 Plans:*** FY2014 Base amount of $2.164 million funds testing of CHARCS software, AIC and COE testing, interoperability, increased software performance capability and DIA policy updates and compliance. ***FY 2015 Plans:*** FY2015 Base amount of $1.139 million will fund CHARCS software increased performance capability, ease of use, incremental capability improvement, integration into Army Center of Excellence (schoolhouse), DIA policy updates, interoperability updates, testing for AIC, COE testing, RAM, and quality assurance, and preplanned product improvement of collection, force protection, and mission support capabilitites.			
Accomplishments/Planned Programs Subtotals	1.231	2.164	1.139

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• CI HUMINT AUTO REPRTING AND COLL (C: *BK5275*	13.584	12.149	12.372	-	12.372	7.604	7.782	7.914	8.159	Continuing	Continuing

Remarks

D. Acquisition Strategy

Program capability documentation was updated to include Capabilities Development Document (CDD) Increment 2 requirements in CHARCS Capabilities Production Document (CPD) Increment 1, Revision 1, which was signed 6 September 2012. CHARCS is a post-Milestone C program. CHARCS is leveraging SEC CECOM and engineering services to increase current capabilities and provide an increased performance capability version of the CHARCS software. CHARCS will utilize competitively-awarded Task and Delivery Orders on Indefinite Deliverable, Indefinite Quantity contract vehicles to procure hardware and provide services. CHARCS software requires development to keep pace with evolving capability requirements, Defense Intelligence Agency and Information Assurance & Vulnerability Assessment (IAVA) compliance, and to meet AROC approved requirements documented in the CHARCS CPD Increment 1, Revision 1. PD is continuously evaluating and assessing existing Commercial-off-the-shelf (COTS), Government-off-the-shelf (GOTS), and Quick Reaction Capabilities (QRC) that support CHARCS CPD Increment 1, Revision 1.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	**Project (Number/Name)** B41 / *CI/HUMINT Software Products (MIP)*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	Project (Number/Name) B41 / *CI/HUMINT Software Products (MIP)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management - PD CHARCS Government Acquisition Mgmt - Direct Costs	Allot	ASPO/PD CHARCS : Alexandria, VA	3.790	-		-		-		-		-	-	3.790	-
		Subtotal	3.790	-		-		-		-		-	-	3.790	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software increased performance, integration and interoperability.	MIPR	TBD : TBD	0.000	-		-		0.644	Nov 2014	-		0.644	Continuing	Continuing	Continuing
CHARCS Software Development	MIPR	CECOM Software Engineering Center : Various Locations	14.988	1.131	Oct 2012	-		-		-		-	Continuing	Continuing	Continuing
CHARCS Software Management/Development	MIPR	DCGS-A : APG, MD	0.000	-		1.044	Mar 2014	-		-		-	Continuing	Continuing	Continuing
CHARC Software Development	MIPR	DCGS-A : APG, MD	0.000	-		0.520	May 2014	-		-		-	Continuing	Continuing	Continuing
DOMEX Tools	MIPR	National Ground Intelligence Center : Charlottesville, VA	8.100	-		-		-		-		-	-	8.100	-
		Subtotal	23.088	1.131		1.564		0.644		-		0.644	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Acquisition and Engineering Services-Program Office Support	MIPR	CACI Technologies, Inc. : Chantilly, VA	0.857	-		-		-		-		-	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	Project (Number/Name) B41 / *CI/HUMINT Software Products (MIP)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	0.857	-		-		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CTSF: Army Interoperability Certification (AIC), Common Operating environment (COE) testing	MIPR	CECOM LCMC : APG, MD	0.000	-		-		0.295	Nov 2014	-		0.295	Continuing	Continuing	Continuing
Reliability, Availability, Maintainability (RAM)	MIPR	ATEC : APG, MD	0.000	-		-		0.100	Nov 2014	-		0.100	Continuing	Continuing	Continuing
Support to P3I collection tools	MIPR	TBD : TBD	0.000	-		-		-		-		-	Continuing	Continuing	Continuing
Quality Assurance	MIPR	CECOM LCMC : APG, MD	0.000	-		-		0.100	Nov 2014	-		0.100	Continuing	Continuing	Continuing
Test Support and Interoperability	MIPR	CTSF, : Ft. Hood, TX	0.612	-		-		-		-		-	Continuing	Continuing	-
Test Support and Interoperability	MIPR	US Army EPG : Ft Huachuca, AZ	0.000	-		0.600	Feb 2014	-		-		-	Continuing	Continuing	Continuing
Operational Test / Security Accreditation Testing / HW Integration Testing	MIPR	ATEC : Multiple	0.336	0.100		-		-		-		-	Continuing	Continuing	Continuing
Security Accreditation Collateral	MIPR	CECOM : Ft. Monmouth, NJ	0.381	-		-		-		-		-	Continuing	Continuing	-
Safety release	MIPR	CECOM : Ft. Monmouth, NJ	0.035	-		-		-		-		-	Continuing	Continuing	-
		Subtotal	1.364	0.100		0.600		0.495		-		0.495	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	Project (Number/Name) B41 / *CI/HUMINT Software Products (MIP)*	

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	29.099	1.231		2.164		1.139		-		1.139	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	**Project (Number/Name)** B41 / *CI/HUMINT Software Products (MIP)*

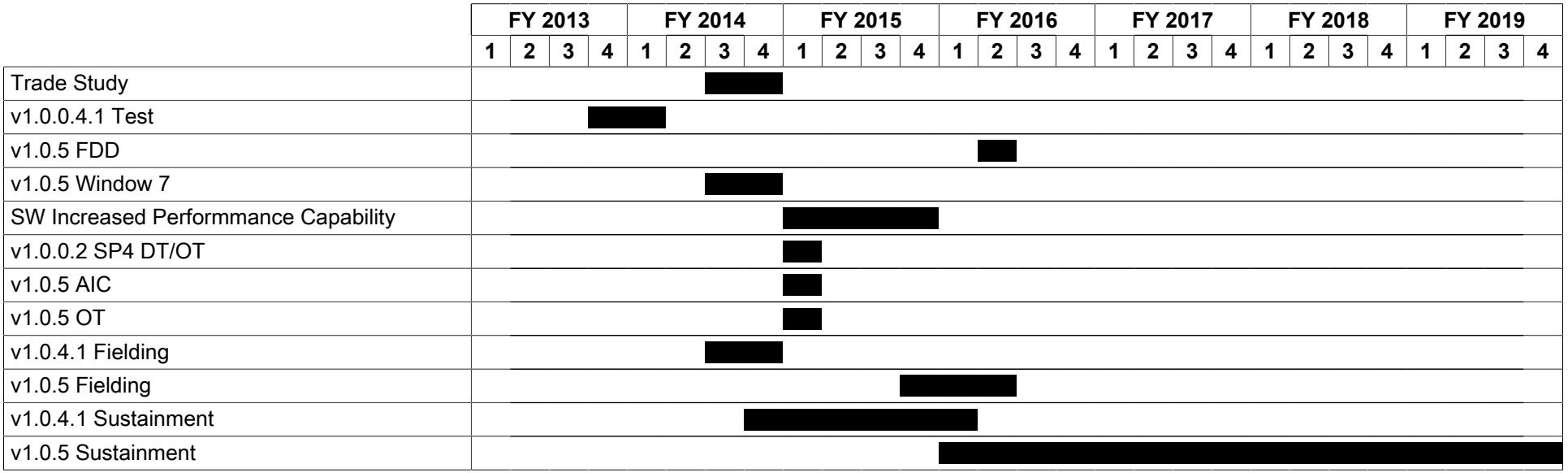

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	**Project (Number/Name)** B41 / *CI/HUMINT Software Products (MIP)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Trade Study	3	2014	4	2014
v1.0.0.4.1 Test	4	2013	1	2014
v1.0.5 FDD	2	2016	2	2016
v1.0.5 Window 7	3	2014	4	2014
SW Increased Performmance Capability	1	2015	4	2015
v1.0.0.2 SP4 DT/OT	1	2015	1	2015
v1.0.5 AIC	1	2015	1	2015
v1.0.5 OT	1	2015	1	2015
v1.0.4.1 Fielding	3	2014	4	2014
v1.0.5 Fielding	4	2015	2	2016
v1.0.4.1 Sustainment	4	2014	1	2016
v1.0.5 Sustainment	1	2016	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	Project (Number/Name) B51 / *Machine - Foreign Language Translation System*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
B51: *Machine - Foreign Language Translation System*	-	4.370	2.673	4.393	-	4.393	1.067	-	-	-	-	12.503
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The Machine Foreign Language Translation System (MFLTS), formerly Sequoyah, develops, fields, and sustains a basic automated foreign speech and text translation capability for Army tactical systems to augment and compliment limited human linguistic resources. These integrated automated translation capabilities will be applicable across three different system configurations; a hand-held/wearable portable device, a laptop/mobile device, and in a networked/web-enabled system. The software modules will translate English from a prioritized list of languages in a prioritized collection of domains (e.g. medical, intelligence, base security). MFLTS will be interoperable with Commercial Off-The-Shelf (COTS) or Government Off-The-Shelf (GOTS) automation equipment to include the Distributed Common Ground System-Army (DCGS-A), Nett Warrior (NW), and Counterintelligence Human Intelligence Automated Reporting and Collection System (CHARCS).

FY15 Base RDTE dollars in the amount of $4.393 million supports Test and Evaluation during the Engineering and Manufacturing Development (EMD) Phase providing deployable automated translation software.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Product Development and Engineering	2.303	2.233	3.269
Articles:	-	-	-
Description: Development and integration of Critical Technology Elements (CTE) of Automated Speech Recognition (ASR), Optical Character Recognition (OCR), and Machine Language Translation Translation Engine (MLT TE) software			
FY 2013 Accomplishments: Developed and integrated Critical Technology Elements (CTE) of Automated Speech Recognition (ASR), Optical Character Recognition (OCR), and Machine Language Translation Translation Engine (MLT TE) software			
FY 2014 Plans: Continuing development and integration of Critical Technology Elements (CTE) of Automated Speech Recognition (ASR), Optical Character Recognition (OCR), and Machine Language Translation Translation Engine (MLT TE) software			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	**Project (Number/Name)** B51 / *Machine - Foreign Language Translation System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Will continue development and integration of Critical Technology Elements (CTE) of Automated Speech Recognition (ASR), Optical Character Recognition (OCR), and Machine Language Translation Translation Engine (MLT TE) software			
Title: Test and Evaluation of MFLTS Capabilities	0.881	-	0.684
Articles:	-	-	-
Description: Testing of the automated language translation capabilities using established metrics, collected standard data sets, and standardized objective validation process			
FY 2013 Accomplishments: Tested the automated language translation capabilities using established metrics, collected standard data sets, and standardized objective validation process			
FY 2015 Plans: Will continue testing of the automated language translation capabilities using established metrics, collected standard data sets, and standardized objective validation process			
Title: PD Support and Management Services	1.186	0.440	0.440
Articles:	-	-	-
Description: Program Support and Matrixed services at other Government activities			
FY 2013 Accomplishments: Provided program support and matrixed services at other Government activities			
FY 2014 Plans: Continuing program support and matrixed services at other Government activities			
FY 2015 Plans: Will continue to provide program support and matrixed services at other Government activities			
Accomplishments/Planned Programs Subtotals	4.370	2.673	4.393

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Machine Foreign Language Translatio: *B88605* -	-	-	-	-	-	1.568	-	-	-	-	1.568

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	**Project (Number/Name)** B51 / *Machine - Foreign Language Translation System*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Machine Foreign Language Translation System (MFLTS)											

Remarks

D. Acquisition Strategy

The MFLTS Technology Development (TD) Phase developed an open software architecture prototype using full and open competition that allowed the addition, upgrade and replacement of translation system components for integration into existing Programs. During the Engineering and Manufacturing Development (EMD) Phase, the program will integrate technology demonstrated during the TD Phase to meet Key Performance Parameters (KPPs). This includes the requirement to meet an Interagency Language Roundtable (ILR) level of 1 for two speech translation modules and an ILR level of 1+ for one text translation module in hand-held/wearable portable, laptop/mobile, and networked/web-enabled system configurations. Milestone B was achieved 22 Jul 13 and an option year contract for the EMD phase was awarded 22 Jul 13. Following a Milestone C decision, a full and open competition production contract will be issued to integrate and field the latest MFLTS capabilities.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	Project (Number/Name) B51 / *Machine - Foreign Language Translation System*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support	MIPR	Various : Ft. Belvoir, VA	2.350	1.186	Jul 2013	0.440	Jan 2014	0.440	Oct 2014	-		0.440	Continuing	Continuing	-
		Subtotal	2.350	1.186		0.440		0.440		-		0.440	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development Contract	MIPR	Raytheon BBN : Cambridge, MA	12.000	-		-		0.553	Jun 2015	-		0.553	-	12.553	-
Engineering Development	MIPR	Various : Various	0.000	1.713	Jul 2013	0.876	Jun 2014	1.284	Oct 2014	-		1.284	Continuing	Continuing	-
		Subtotal	12.000	1.713		0.876		1.837		-		1.837	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	MIPR	Various : Various	2.635	0.590	Oct 2012	1.357	Oct 2013	1.432	Oct 2014	-		1.432	Continuing	Continuing	-
		Subtotal	2.635	0.590		1.357		1.432		-		1.432	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation Activities	MIPR	USA Test and Eval Command : Alexandria, VA	0.100	0.881	Mar 2013	-		0.419	Nov 2014	-		0.419	Continuing	Continuing	-
Data Collection	MIPR	Army Research Laboratory : Adelphi, MD	0.308	-		-		-		-		-	-	0.308	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	Project (Number/Name) B51 / *Machine - Foreign Language Translation System*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Readiness Assessment	MIPR	Army Research Laboratory : Adelphi, MD	0.000	-		-		0.047	Dec 2014	-		0.047	-	0.047	-
Forensic Analysis	MIPR	Pro Services : Trenton, NJ	0.000	-		-		0.032	Dec 2014	-		0.032	-	0.032	-
PM and Host Platform Test and Evaluation Activities	MIPR	Various : Various	0.000	-		-		0.186	Nov 2014	-		0.186	-	0.186	-
		Subtotal	0.408	0.881		-		0.684		-		0.684	-	-	-

	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	17.393	4.370		2.673		4.393		-		4.393	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	**Project (Number/Name)** B51 / *Machine - Foreign Language Translation System*

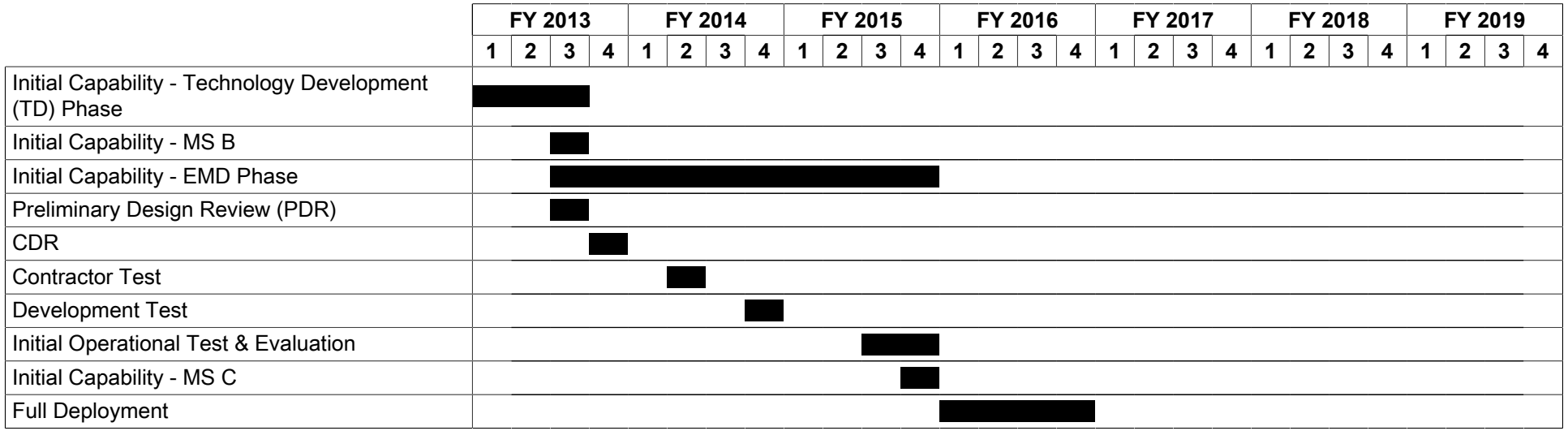

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604321A / *ALL SOURCE ANALYSIS SYSTEM*	**Project (Number/Name)** B51 / *Machine - Foreign Language Translation System*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Initial Capability - Technology Development (TD) Phase	4	2010	3	2013
Initial Capability - MS B	3	2013	3	2013
Initial Capability - EMD Phase	3	2013	4	2015
Preliminary Design Review (PDR)	3	2013	3	2013
CDR	4	2013	4	2013
Contractor Test	2	2014	2	2014
Development Test	4	2014	4	2014
Initial Operational Test & Evaluation	3	2015	4	2015
Initial Capability - MS C	4	2015	4	2015
Full Deployment	1	2016	4	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604328A / *TRACTOR CAGE*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	11.297	23.829	19.929	-	19.929	24.619	25.178	23.805	24.030	Continuing	Continuing
C71: *Tractor Cage*	-	11.297	23.829	19.929	-	19.929	24.619	25.178	23.805	24.030	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The details of this program are reported in accordance with Title 10, United States Code, Section 119(a)(1).

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	32.095	23.841	20.771	-	20.771
Current President's Budget	11.297	23.829	19.929	-	19.929
Total Adjustments	-20.798	-0.012	-0.842	-	-0.842
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	-20.798	-0.012	-0.842	-	-0.842

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	83.224	85.054	27.884	-	27.884	62.605	58.339	58.189	54.837	Continuing	Continuing
S58: *Soldier Enhancement Program*	-	2.815	4.123	3.531	-	3.531	7.623	7.553	6.720	6.978	Continuing	Continuing
S60: *Clothing & Equipment*	-	4.942	5.447	2.519	-	2.519	4.612	6.967	10.819	10.844	Continuing	Continuing
S61: *Acis Engineering Development*	-	10.178	14.049	1.742	-	1.742	3.935	3.838	3.894	3.963	Continuing	Continuing
S62: *Counter-Defilade Target Engagement - SDD*	-	37.352	12.976	7.865	-	7.865	10.834	6.903	7.301	0.987	Continuing	Continuing
S63: *Small Arms Improvement*	-	13.201	17.836	4.393	-	4.393	14.294	14.408	14.496	17.805	Continuing	Continuing
S64: *Common Remotely Operated Wpn Sys (CROWS)*	-	-	9.459	2.458	-	2.458	3.447	4.437	3.453	2.730	-	25.984
S70: *Personnel Recovery Support System (PRSS)*	-	4.090	1.132	0.543	-	0.543	1.123	1.176	1.177	1.180	Continuing	Continuing
VS5: *Soldier Protective Equipment*	-	10.646	20.032	4.833	-	4.833	16.737	13.057	10.329	10.350	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

Change Summary Explanation:

A. Mission Description and Budget Item Justification

FY 2014 budget request funds Infantry Support Weapons. This program element (PE) Engineering and Manufacturing Development (EMD) manages the Soldier as a system, with the goal of increasing Soldiers' combat effectiveness, increasing survivability, and improving the Soldiers' quality of life. It develops and tests prototypes of weapons, clothing, equipment, and other items useful to support the Soldier.

Project S58 (Soldier Enhancement Program) supports accelerated integration, modernization, and enhancement efforts of lighter, more lethal weapons, and improved Soldier items including lighter, more comfortable load-bearing equipment, field gear, survivability items, communications equipment, and navigational aids.

Project S59 (Soldier Support Equipment) supports system development and prototyping of critical Soldier support systems and other combat service support equipment that will improve unit sustainability and combat effectiveness.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army	Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604601A *I Infantry Support Weapons*

Project S60 (Clothing and Equipment) supports pre-production development of state-of-the-art individual clothing and equipment to improve the survivability, mobility and sustainment affecting the quality of life of the individual Soldier.

Project S61 (Aircrew Integrated Systems) provides System Development programs with improved aviator safety, survivability, and human performance that amplify the warfighting effectiveness and facilitates full-spectrum dominance of the Army aircraft including the AH-64 Apache/Longbow, CH-47 Chinook, UH/HH-60 Blackhawk, Light Utility Helicopter, and Armed Reconnaissance Helicopter.

Project S62 (Counter-Defilade Target Engagement) the XM25, Individual Airburst Weapon System (IAWS) delivers a 25mm programmable high explosive airburst (HEAB) round to defeat defilade and point areas targets out to approximately 600 meters. Accurate and lethal engagement of defilade targets at the squad level is the number one capability gap identified by the United States Army Infantry Center (USAIC).

Project S63 (Small Arms Improvements) demonstrates engineering development models or integrated commercial items designed to enhance lethality, target acquisition, fire control, training effectiveness, and reliability for small arms weapon systems and ammunition. FY2011 new programs include Improved Weapons Coatings, Personal Defense Weapon, 30 Round 5.56mm Magazine, Modular Handgun and Precision Sniper Rifle.

Project S64 (CROWS) continue enhancing CROWS capability and reliability, and to increase its application across combat and tactical platforms. This capability will enhance the Soldier's survivability, lethality and situational awareness.

Project S70 (Personnel Recovery Support System) provides system research, development and testing of the Personal Recovery Support System/Personnel Recovery Support Equipment supporting operations to report and locate isolated, missing, detained or captured Soldiers.

Project VS5 (Soldier Protective Equipment) supports engineering and manufacturing development of Individual Soldier Ballistic Protection equipment. It will leverage advancements in technology to continue incremental improvements to body armor (to include improved outer tactical vests, plate carriers, and helmets) and other personal protective equipment.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	96.478	79.855	74.510	-	74.510
Current President's Budget	83.224	85.054	27.884	-	27.884
Total Adjustments	-13.254	5.199	-46.626	-	-46.626
• Congressional General Reductions	-5.900	-5.801			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.350	-			
• Other Adjustments 1	-5.004	11.000	-46.626	-	-46.626

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S58 / *Soldier Enhancement Program*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
S58: *Soldier Enhancement Program*	-	2.815	4.123	3.531	-	3.531	7.623	7.553	6.720	6.978	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The Soldier Enhancement Program (SEP) was established by the National Defense Authorization Act for Fiscal Years 1990 and 1991. The purpose of the SEP is to evaluate readily available Commercial Off The Shelf (COTS), Government Off The Shelf (GOTS) and Non-Developmental Item (NDI) equipment to increase the combat effectiveness of the Soldier. The SEP uses a Buy, Try and Decide methodology to evaluate (COTS/GOTS/NDI) that have the potential to enhance Soldier combat effectiveness. The SEP provides accelerated integration, modernization, and capability enhancement efforts of lighter, more lethal weapons and munitions, improved engagement optics, sights, lasers and fire controls, improved lighter more comfortable and versatile Soldier individual equipment, survivability enhancement gear, communications equipment and situational awareness aids. Initiatives are submitted by Soldiers and others at any time and are evaluated twice a year.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Soldier Enhancement Program (SEP).	2.515	3.666	3.058
Articles:	-	-	-

Description: Buy and evaluate COTS/GOTS/NDI items with potential to enhance Soldier combat effectiveness.

FY 2013 Accomplishments:

FY 2013 Description: On 23 October 2012 the SEP council approved 6 initiatives for evaluation. These include Quick Release Mount, Thermal Weapon Sight clip-on adapter, Mortar Carrying Backpack, All purpose Adhesive light, and Hands Free Heads device. These items are currently undergoing test and evaluation. Product evaluations include safety testing and confirmation (if needed), and collection and analysis of user feedback/results. Since the 27 February 2012 SEP Council, 52 proposals were submitted for consideration and 11 approved as a SEP initiative. The approved initiatives include machine gun optic recoil rails, machine gun accessory bags, mandible protectors for crew personnel, 40mm extended range munitions, and others. These initiatives were screened using the SEP criteria (COTS/GOTS/NDI) by the SEP Council and are currently undergoing test and evaluation by operational units.

FY 2014 Plans:

On 29 August 2013 the SEP council approved 19 proposals as new initiatives for funding in FY14. These items will undergo test and evaluation. Product evaluations will include: ARES-16 AMG-2 (Lightweight Automatic Machine Gun), Single Point Sling Mount, Combat Shotgun Enhancement Kit, Small Arms Ballistic Chronograph, Precision Guided Firearms, Crew Served Weapon Large Field of View Sight, GAU-19B Weapon Vehicle Integration, M72 Clip-on IR Laser Sight, PD-100 Black Hornet PRS, InstantEye, Datron Scout UAS, Recon Scout XT Throwable Reconnaissance Robot, Milspec Plastics – Cobra Cuffs, Team Stove,

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S58 / *Soldier Enhancement Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Increased Capacity Parachutist Oxygen Bottle, Enhanced Electronic Automatic Activation Device, Military Altimeter, Wild Things Low Loft FASTPACK™ Jacket and MINITS iWitness. These initiatives were screened using the SEP Criteria (COTS/GOTS/NDI) by the SEP Council and will undergo test and evaluation by operational units. Currently SEP is executing 45 initiatives. On 31 October 2013, the SEP Council convened and approved 8 out-of-cycle initiatives in support of US Army Alaska. Anticipate over 100 proposals to be submitted in support of the next SEP Council. Those proposals that meet the SEP criteria (COTS/GOTS/NDI) will be considered by the SEP Council for evaluation as new initiatives. The SEP Council will convene 27 February 2014 to review and approve new program initiatives. Product evaluations will include safety testing, and confirmation (as needed), collection, and analysis of user feedback/results. Anticipate approving and evaluating 15 new initiatives. ***FY 2015 Plans:*** Anticipate over 125 proposals to be submitted. Those proposals that meet the SEP criteria will be considered by the SEP Council for evaluation as new initiatives. Product evaluations will include safety testing and confirmation (as needed), collection, and analysis of user feedback/results. Anticipate approving and evaluating 15 initiatives.			
Title: Systems Engineering and Program Management. ***Articles:*** ***Description:*** Systems Engineering and Program Management. ***FY 2013 Accomplishments:*** The SEP team received incoming proposals submitted via the SEP web application (http://peosoldier.army.mil/SEP). The SEP team coordinated with industry and US Army TRADOC Proponents to ensure that proposals submitted satisfied user needs and that the materiel alternatives were COTS/GOTS/NDI solutions that can be readily purchased and evaluated. The SEP team performed analysis of incoming proposals in preparation for the FY13 SEP Council meetings that determined which proposals would be evaluated as SEP initiatives. Initiatives completing evaluations received recommendations to either transition the capability to the field or terminate the effort IAW AR79-1. Coordination with US ARMY TRADOC Proponents continues as screening process as well as to help ensure that SEP initiative evaluations inform the requirements process. ***FY 2014 Plans:*** The SEP team will evaluate incoming proposals that are submitted via the SEP web application. Additionally, coordination will be performed with industry and US Army TRADOC Proponents to ensure that proposals submitted can satisfy user needs and that the materiel alternatives are COTS/GOTS/NDI solutions that can be readily purchased and evaluated. Analysis of incoming proposals will be performed in preparation for the FY14 SEP Council meetings to determine which proposals will be evaluated as SEP initiatives. Ongoing initiatives completing evaluations will receive recommendations as to whether the capability should transition to become an eventual fielded capability or the effort should be terminated IAW AR 79-1. Coordination with US	0.300 -	0.457 -	0.473 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S58 / *Soldier Enhancement Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
ARMY TRADOC Proponents continues as screening process as well as to help ensure that SEP initiative evaluations inform the requirements process. ***FY 2015 Plans:*** The SEP team will evaluate incoming proposals submitted via the SEP web application (http://peosoldier.army.mil/SEP). The SEP team will coordinate with industry and US Army TRADOC Proponents to ensure that proposals submitted satisfied user needs and that the materiel alternatives were COTS/GOTS/NDI solutions that can be readily purchased and evaluated. The SEP team will perform analysis of incoming proposals in preparation for the FY15 SEP Council meetings that determined which proposals would be evaluated as SEP initiatives. Initiatives completing evaluations will receive recommendations to either transition the capability to the field or terminate the effort IAW AR79-1. Coordination with US ARMY TRADOC Proponents continues as screening process as well as to help ensure that SEP initiative evaluations inform the requirements process.			
Accomplishments/Planned Programs Subtotals	2.815	4.123	3.531

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OPA3 MA6800: *Soldier Enhancement - Other Support Equipment - MA6800*	6.513	-	1.677	-	1.677	2.305	2.311	2.482	2.485	Continuing	Continuing
• OPA2 BA5300: *Soldier Enhancement - Comms & Electronics Equipment - BA5300*	-	-	0.294	-	0.294	0.352	0.386	0.490	0.493	Continuing	Continuing
• WTCV GC0076: *Soldier Enhancement - Smalls Arms Weapons - GC0076*	2.375	1.267	1.682	-	1.682	2.511	2.554	2.779	2.784	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Soldier Enhancement Program (SEP)focuses on Commercial Off The Shelf (COTS), Government Off The Shelf (GOTS)and Non-Developmental Item (NDI) initiatives, Soldier capability enhancements and integration efforts that lend themselves to accelerated acquisition and limited fielding in the near term (three years or less). New SEP candidates are reviewed and approved semi-annually. SEP items are procured from multiple appropriations, i.e., Other Procurement Army (OPA) and Weapons and Tracked Combat Vehicles (WTCV).

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S58 / *Soldier Enhancement Program*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Various	MIPR	PEO Soldier : Ft. Belvoir, VA	11.465	0.300	Mar 2013	0.457	Mar 2014	0.473	Mar 2015	-		0.473	Continuing	Continuing	Continuing
		Subtotal	11.465	0.300		0.457		0.473		-		0.473	-	-	-

Remarks

Systems Engineering and Program Management includes in-house engineering support and integration services, conducting technical evaluations, market research and program reviews.

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Various	MIPR	PEO Soldier : Ft. Belvoir, VA	37.798	1.775	Jun 2013	2.484	Jun 2014	1.808	Jun 2015	-		1.808	Continuing	Continuing	Continuing
		Subtotal	37.798	1.775		2.484		1.808		-		1.808	-	-	-

Remarks

Candidates for the Soldier Enhancement Program are received, reviewed, and approved semi-annually. Contractual efforts are focused on procuring prototypes for testing.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Various	MIPR	PEO Soldier : Ft. Belvoir, VA	6.424	-		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	6.424	-		-		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Various	MIPR	PEO Soldier : Ft. Belvoir, VA	12.746	0.740	Aug 2013	1.182	Aug 2014	1.250	Aug 2015	-		1.250	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S58 / *Soldier Enhancement Program*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			12.746	0.740		1.182		1.250		-		1.250	-	-	-

Remarks

Testing costs vary annually depending on number and type of items being evaluated.

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	68.433	2.815		4.123		3.531		-		3.531	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S58 / *Soldier Enhancement Program*

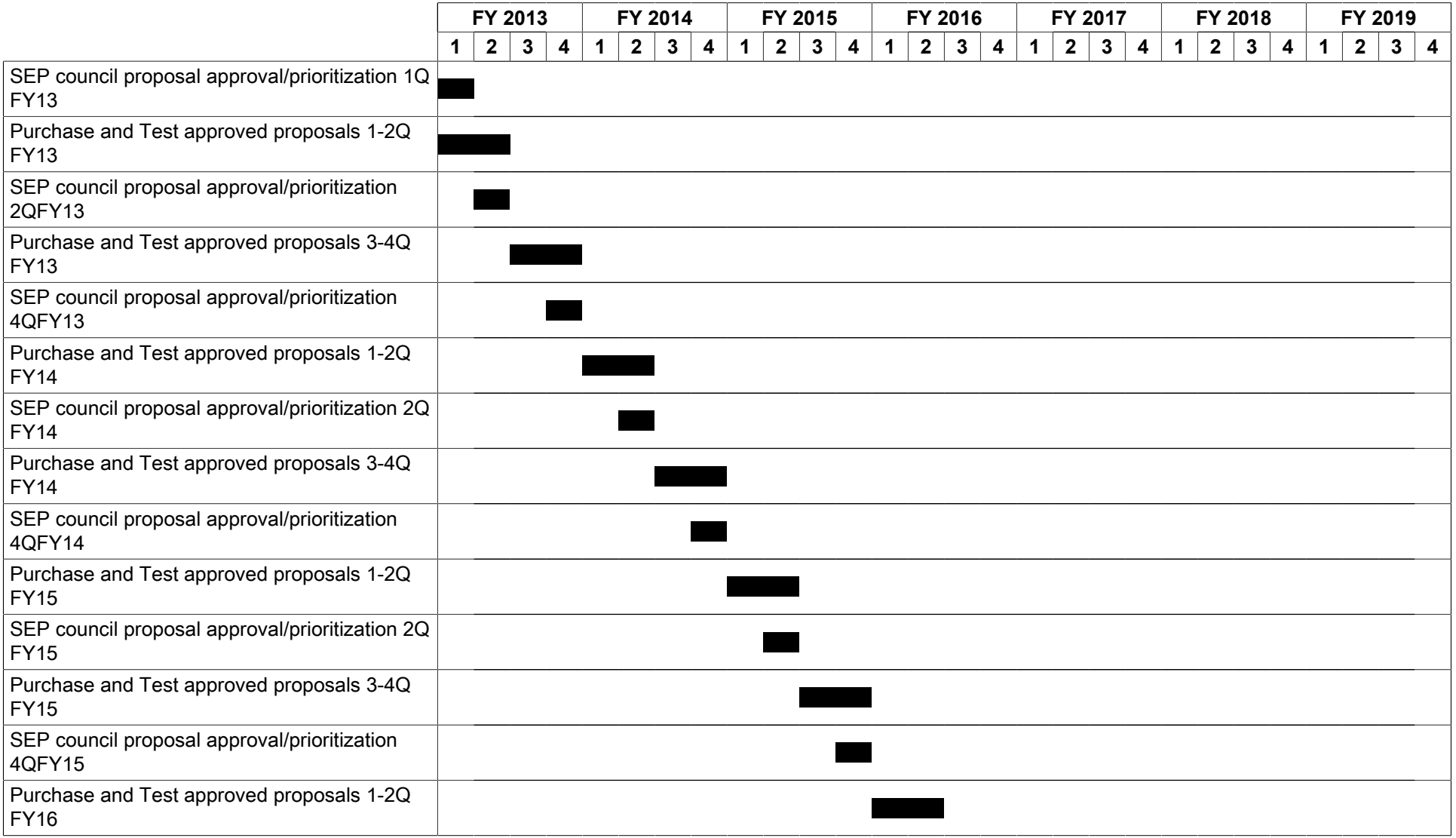

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S58 / *Soldier Enhancement Program*

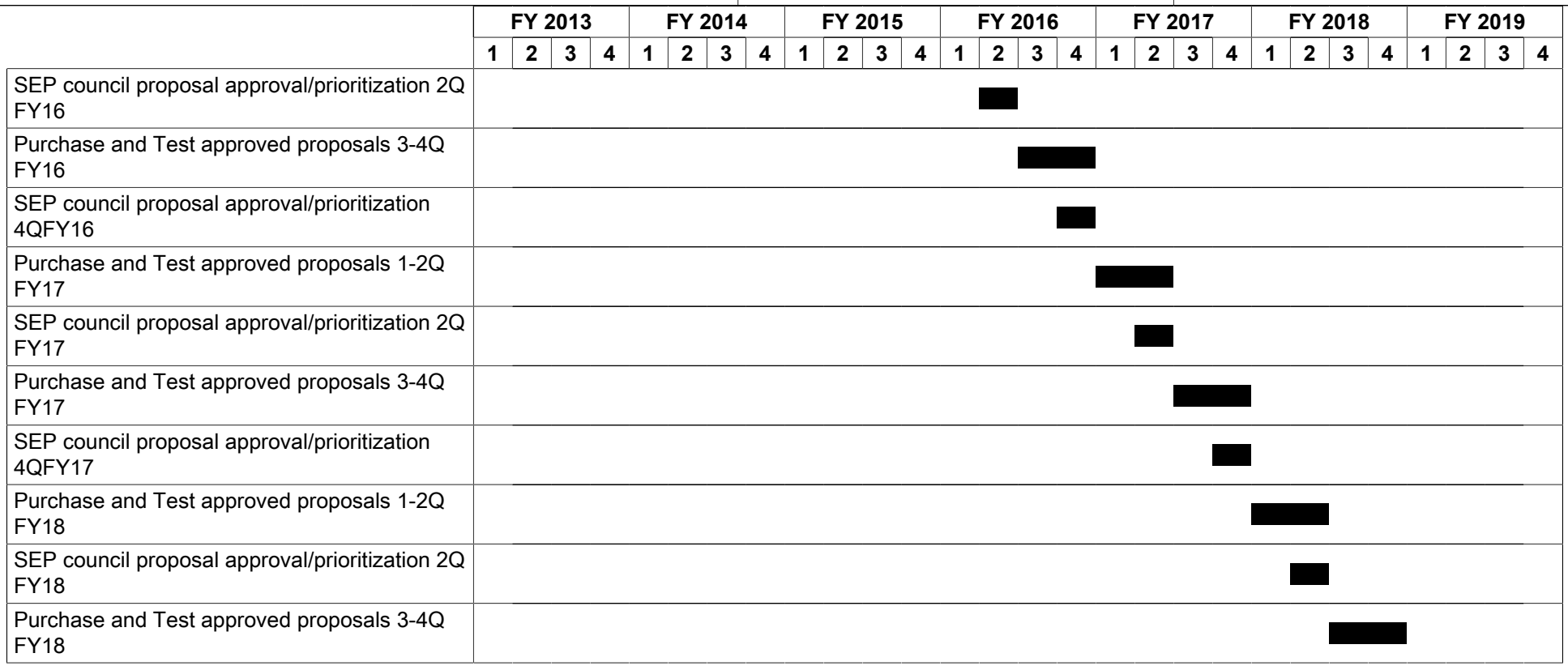

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S58 / *Soldier Enhancement Program*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
SEP council proposal approval/prioritization 1Q FY13	1	2013	1	2013
Purchase and Test approved proposals 1-2Q FY13	1	2013	2	2013
SEP council proposal approval/prioritization 2QFY13	2	2013	2	2013
Purchase and Test approved proposals 3-4Q FY13	3	2013	4	2013
SEP council proposal approval/prioritization 4QFY13	4	2013	4	2013
Purchase and Test approved proposals 1-2Q FY14	1	2014	2	2014
SEP council proposal approval/prioritization 2Q FY14	2	2014	2	2014
Purchase and Test approved proposals 3-4Q FY14	3	2014	4	2014
SEP council proposal approval/prioritization 4QFY14	4	2014	4	2014
Purchase and Test approved proposals 1-2Q FY15	1	2015	2	2015
SEP council proposal approval/prioritization 2Q FY15	2	2015	2	2015
Purchase and Test approved proposals 3-4Q FY15	3	2015	4	2015
SEP council proposal approval/prioritization 4QFY15	4	2015	4	2015
Purchase and Test approved proposals 1-2Q FY16	1	2016	2	2016
SEP council proposal approval/prioritization 2Q FY16	2	2016	2	2016
Purchase and Test approved proposals 3-4Q FY16	3	2016	4	2016
SEP council proposal approval/prioritization 4QFY16	4	2016	4	2016
Purchase and Test approved proposals 1-2Q FY17	1	2017	2	2017
SEP council proposal approval/prioritization 2Q FY17	2	2017	2	2017
Purchase and Test approved proposals 3-4Q FY17	3	2017	4	2017
SEP council proposal approval/prioritization 4QFY17	4	2017	4	2017
Purchase and Test approved proposals 1-2Q FY18	1	2018	2	2018
SEP council proposal approval/prioritization 2Q FY18	2	2018	2	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S58 / *Soldier Enhancement Program*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Purchase and Test approved proposals 3-4Q FY18	3	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S60 / *Clothing & Equipment*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
S60: *Clothing & Equipment*	-	4.942	5.447	2.519	-	2.519	4.612	6.967	10.819	10.844	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This funding supports engineering and manufacturing development tasks related to individual clothing, equipment and personnel parachutes with the goal of enhancing the survivability, mobility and quality of life of the individual Soldier. It funds system integration and formal Developmental Testing/Operational Testing of preproduction and production representative systems leveraging advancements in materials, fabrication techniques, moisture management, flame resistance, antimicrobial treatments, insect protection, extreme environmental protection and chemical/biological protection and camouflage to increase the capabilities and durability of tactical and non-tactical clothing and individual equipment.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Soldier Uniforms and Clothing	3.072	3.659	0.519
Articles:	-	-	-

Description: Develop and provide superior and sustainable integrated clothing for the Soldier in a rapidly changing global environment.

FY 2013 Accomplishments:

Environment Clothing and Equipment. Conducted efforts to improve components of the Extended Cold Weather Clothing System (ECWCS) to provide protection to Military Free Fall (MFF) parachutists due to increased altitudes and duration of MFF flights. Tested alternate flame resistant fabrics for use in ECWCS Layer 5 to support deployers in support of Operation Enduring Freedom (OEF).

Tactical/Personal Clothing. Conducted technical development of printing and color shade standards required for all uniform fabrics and findings to potentially implement a family of camouflage patterns to replace the current Universal Camouflage Pattern. Completed testing to support transition of Rapid Fielding Initiative Army Combat Pants (ACP) to Program of Record in 3QFY14. (Tested improvements to Army Aircrew Combat Uniform (A2CU) to include collar height to clear skin gap, replacing Velcro on pockets to eliminate foreign objects/debris hazards, and conducted initial fit assessment of female variant.

Clothing Bag. Refined designs into the clothing bag, including the Women's Army Service Uniform (ASU), following results of the FY12/13 web survey. Conducted user evaluation of the Army Physical Fitness Uniform (APFU) ensemble to transition to clothing bag and the optional purchase APFU for retail sale in FY14. Conducted technical testing to determine appropriate useable life for clothing bag items. Completed cost benefit analysis for sew-on ASU Shoulder Sleeve Insignia and tabs at direction of Army

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S60 / *Clothing & Equipment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Uniform Board. Initiated development of an improved garrison Food Service Uniform that incorporates commercial standards for burn protection, stain resistance and professional appearance. Tactical/Personal Clothing. Conducted operational tests of camouflage pattern effectiveness in woodland and transitional environments. Conducted technical development of printing and color shade standards required for all equipment fabrics and findings to implement the Phase IV effort for a family of global camouflage. ***FY 2014 Plans:*** Environmental Clothing and Equipment. Obtained a Material Development Decision (MDD) and Milestone (MS) C Decision to transition the Rapid Fielding Initiative Army Combat Glove (ACG) to Program of Record in 1QFY14. Obtained MS C and Full Rate Production Decision in 1QFY14 for the Army Combat Shirt. Conduct photosimulation evaluations of existing transitional camouflage patterns in 2QFY14, to be followed by both photosimulation and field evaluations of existing services' woodland, transitional, and arid patterns in 4QFY14. Conduct evaluation of most effective colors to be used on combat boots, T-shirts and belts used with the combat uniform. Develop shade standards to be used in leather handwear. Develop improvements and test changes to resolve sole traction problems with Intermediate Cold Weather Boots (ICWB) at lower end of temperature range via ECP and spec changes. Finalize production specifications for Mountain Combat Boots Temperate and hot weather variants and obtain MDD and MS C in 4QFY14. Tactical/Personal Clothing. Conduct market survey, technical testing, procure prototypes and user evaluation garments, conduct user evaluation, conduct Pyroman burn tests, and develop patterns for the Army Aircrew Combat Uniform–Alternate (A2CU-A) to transfer to sustainment in 4QFY14. Optimize performance of the deployment camouflage uniform pattern across the Near Infrared spectrum. Will obtain MDD for the Army Combat Pants (ACP) in 3QFY14. Clothing Bag. Will continue to refine designs and incorporate new materials and designs into clothing bag items. Finalize patterns and Technical Data Package for the next generation Army Physical Fitness Uniform providing improved fit, moisture wicking and antimicrobial capabilities. Develop patterns and conduct user evaluation on Army Service Uniform (ASU) to address women's concerns in fit and function of the ASU. Procure prototypes of Garrison Food Service Uniform (GFSU), and will conduct technical testing and user evaluation to incorporate commercial standards for burn protection, stain release, and professional appearance into the GFSU with MS-C anticipated 4QFY14. ***FY 2015 Plans:*** Environment Clothing and Equipment. Conduct Developmental Testing and Operational Testing (DT/OT) for FR Cold Weather Ensemble (CWE). Complete materials development and conduct field evaluation of Gen II spectral mitigation enhancement to combat uniforms.			
Title: Individual Equipment	1.870	1.788	2.000

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S60 / *Clothing & Equipment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: Develop and provide superior and sustainable integrated individual equipment for the Soldier in a rapidly changing global environment. ***FY 2013 Accomplishments:*** Load Carriage/NBC/Hydration. Completed technical development of the Army Mountaineering Kit (AMK) and obtained successful Milestone C Decision in 3QFY13. Conducted limited user evaluation of Improved MOLLE medic bag with incorporated changes for user community and transitioned to sustainment in 2QFY14. Completed development and evaluation of Individual First Aid Kit II and transitioned to production to support Rapid Fielding Initiative in 4QFY13. Personnel Airdrop. Obtained successful Milestone C for Modular Airborne Weapons Case in 3QFY13. Completed Operational Testing of the Military Free Fall Advanced Ram Air Parachute System (MFF ARAPS) which significantly increases MFF altitude and flight duration. ***FY 2014 Plans:*** Personnel Airdrop. Obtained Milestone C decision for MFF ARAPS in 1QFY14. Obtain Pre-EMD Decision anticipated in 2QFY14 and Milestone B decision in 3QFY14 for the Parachute Navigation System (PARANAVSYS) program, with procuement of DT 1 assets anticipated by 3QFY14. The PARANAVSYS will provide Global Positioning System (GPS) navigation capability to MFF parachutists. Will conduct DT 1 testing on PARANAVSYS to include environmental and physical properties testing. Will also procure Developmental Testing (DT) assets and conduct DT on MC-6 Control Lines to improved durability and reduce control line breakages. ***FY 2015 Plans:*** Personnel Airdrop. Will procure Developmental Test 2 (DT2) assets and conduct DT testing on PARANAVSYS which provides GPS navigation capabilities to MFF parachutists. Conduct DT/OT for Integrated Load Carriage System. Conduct DT of Individual Water Treatment Device (IWTD) and achieve MS C in 4QFY15.			
Accomplishments/Planned Programs Subtotals	4.942	5.447	2.519

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Clothing and Individual Eqp S53: *RDTE, 0603827.S53, Clothing and Equipment*	7.096	5.634	1.555	-	1.555	9.364	8.608	7.272	7.467	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S60 / *Clothing & Equipment*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Central Funding and Fielding: *OMA, 121017, Central Funding and Fielding*	51.773	103.460	127.085	-	127.085	126.907	179.862	172.351	188.833	Continuing	Continuing
• Advanced Tactical Parachute System: *OPA, MA7801, Advanced Tactical Parachute System*	32.765	37.118	26.322	-	26.322	26.515	31.354	46.185	48.860	Continuing	Continuing

Remarks

D. Acquisition Strategy

Acquisition strategies for these programs vary in methods to include the following: (1) Quick fixes in 12-24 months or less from concept to Type Classification (TC); (2) modernization improvements which require limited RDT&E and are completed in more than 24-48 months from inception to Type Classification; and (3) fully integrated development that requires RDT&E funding and is completed in four years or more.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S60 / *Clothing & Equipment*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
In-House Support	Various	PM SPIE : Various	7.575	0.450		0.450		-		-		-	Continuing	Continuing	Continuing
		Subtotal	7.575	0.450		0.450		-		-		-	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	Various	NSRDEC : Natick, MA	13.047	0.942		0.900		0.409		-		0.409	Continuing	Continuing	Continuing
Development Contracts	Various	Various : Various	36.912	2.000		2.700		1.210		-		1.210	Continuing	Continuing	Continuing
		Subtotal	49.959	2.942		3.600		1.619		-		1.619	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Misc Support Costs	Various	Various : Various	14.696	0.350		0.250		-		-		-	Continuing	Continuing	Continuing
		Subtotal	14.696	0.350		0.250		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Testing	Various	Various : Various	15.058	1.200		1.147		0.900		-		0.900	Continuing	Continuing	Continuing
		Subtotal	15.058	1.200		1.147		0.900		-		0.900	-	-	-

	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	87.288	4.942		5.447		2.519		-		2.519	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S60 / *Clothing & Equipment*

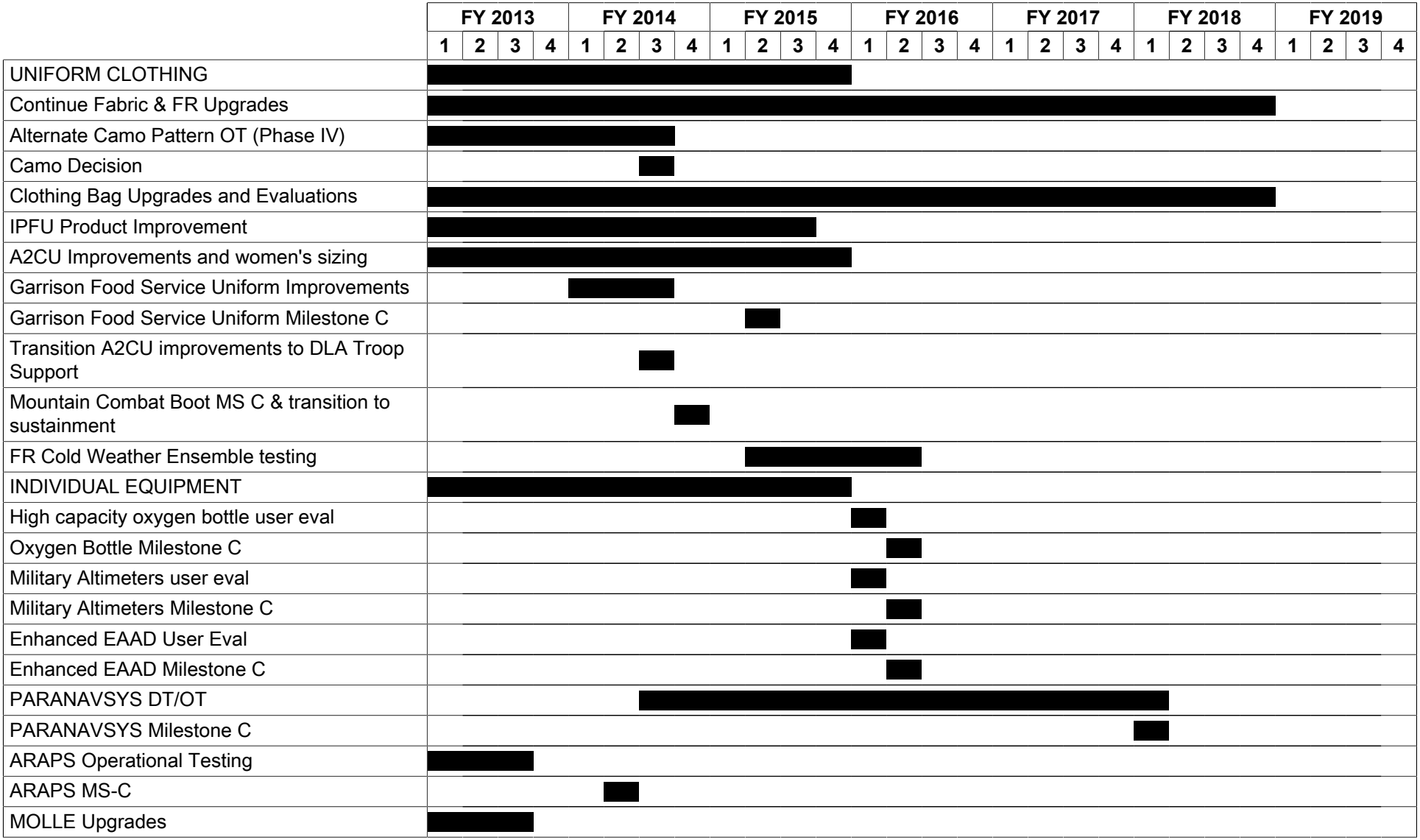

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S60 / *Clothing & Equipment*

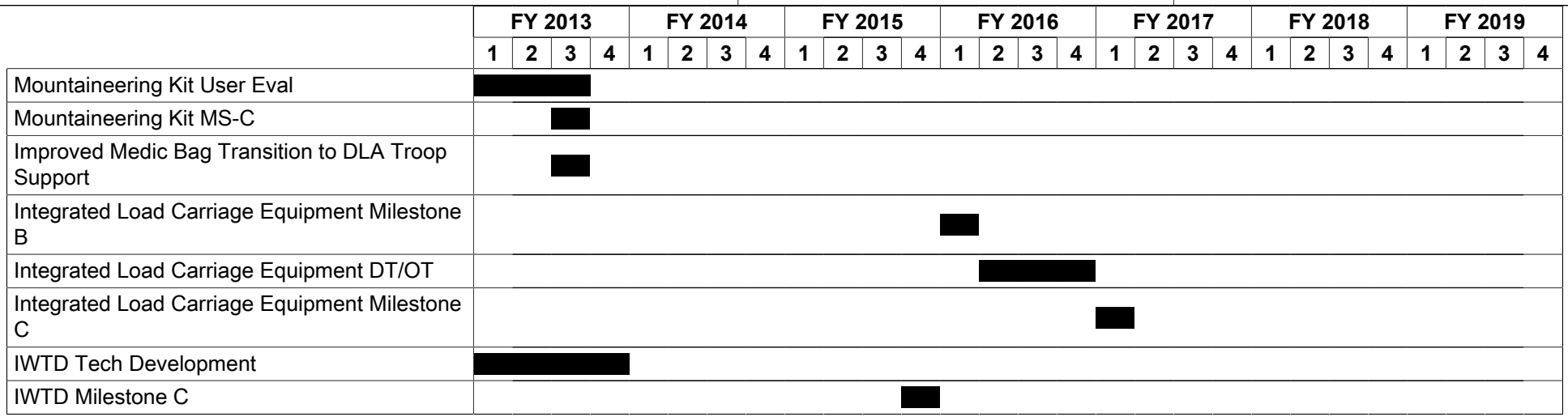

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S60 / *Clothing & Equipment*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
UNIFORM CLOTHING	1	2010	4	2015
Continue Fabric & FR Upgrades	3	2009	4	2018
Alternate Camo Pattern OT (Phase IV)	1	2012	3	2014
Camo Decision	3	2014	3	2014
Clothing Bag Upgrades and Evaluations	1	2012	4	2018
IPFU Product Improvement	1	2012	3	2015
A2CU Improvements and women's sizing	1	2012	4	2015
Garrison Food Service Uniform Improvements	1	2014	3	2014
Garrison Food Service Uniform Milestone C	2	2015	2	2015
Transition A2CU improvements to DLA Troop Support	3	2014	3	2014
Mountain Combat Boot MS C & transition to sustainment	4	2014	4	2014
FR Cold Weather Ensemble testing	2	2015	2	2016
INDIVIDUAL EQUIPMENT	2	2008	4	2015
High capacity oxygen bottle user eval	1	2016	1	2016
Oxygen Bottle Milestone C	2	2016	2	2016
Military Altimeters user eval	1	2016	1	2016
Military Altimeters Milestone C	2	2016	2	2016
Enhanced EAAD User Eval	1	2016	1	2016
Enhanced EAAD Milestone C	2	2016	2	2016
PARANAVSYS DT/OT	3	2014	1	2018
PARANAVSYS Milestone C	1	2018	1	2018
ARAPS Operational Testing	1	2013	3	2013
ARAPS MS-C	2	2014	2	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S60 / *Clothing & Equipment*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
MOLLE Upgrades	1	2013	3	2013
Mountaineering Kit User Eval	1	2013	3	2013
Mountaineering Kit MS-C	3	2013	3	2013
Improved Medic Bag Transition to DLA Troop Support	3	2013	3	2013
Integrated Load Carriage Equipment Milestone B	1	2016	1	2016
Integrated Load Carriage Equipment DT/OT	2	2016	4	2016
Integrated Load Carriage Equipment Milestone C	1	2017	1	2017
IWTD Tech Development	1	2013	4	2013
IWTD Milestone C	4	2015	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S61 / *Acis Engineering Development*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
S61: *Acis Engineering Development*	-	10.178	14.049	1.742	-	1.742	3.935	3.838	3.894	3.963	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project conducts Engineering and Manufacturing Development (EMD) for the Air Soldier System (Air SS). The Air SS improves Army aircrew safety, survivability, and human performance capabilities. The Air SS Capability Development Document addresses capability gaps identified during combat operations in Iraq and Afghanistan including the physiological effects of weight and bulk, limited situational awareness, and lack of functionally integrated aircrew life support equipment by using a Soldier as a System approach. The Air SS delivers a 25% reduction in the bulk and weight of current Army aircrew survival and mission equipment; improved Situational Awareness (SA); terrain, threat, and obstacle avoidance information; improved heads-up display (HUD) technologies that increase the aviator's ability to operate safely in Degraded Visual Environments; and the capability to perform missions up to 11.0 hours in extreme environmental and chemical/biological threat conditions. The Air SS enhances SA by delivering 3D flight symbology through an enhanced HUD; optimized survival equipment and integrated lightweight body armor; lightweight protective clothing with active thermal protection; and functionally integrated life support and communications-electronics that combines the functionality of, and reduces the bulk of, multiple standalone systems and their disparate batteries. This project also funds the development and test of an Integrated Survival Radio pre-planned product improvement that combines the functionality of the current aircrew survival/rescue radio and intercom radio into a single form factor that will significantly reduce aircrew ensemble weight and bulk. This program does not duplicate any aircraft platform program efforts.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Aircrew Integrated Systems (ACIS) Engineering Development	10.178	14.049	1.742
Articles:	-	-	-
Description: Integration, evaluation, testing, and qualification of Air Soldier System multi-phased capabilities as technologies mature.			
FY 2013 Accomplishments: Continued Air Soldier System improvements, integration, evaluation, testing, and qualification including head tracking, Soldier display, aircraft-mounted mission display, Soldier computer module, integrated layered clothing system, and aircraft integration. Primary activities included completion of detail design, manufacture of production representative prototypes and laboratory qualification test activties.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S61 / *Acis Engineering Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Completes the fabrication, manufacture, and test of production-representative hardware for the qualification of the Air Soldier System. Completes Developmental and Operational test of head tracking, Soldier and aircraft mounted displays, Soldier computer modules, and layered clothing integration. ***FY 2015 Plans:*** Initiates the design and studies of system pre-planned product improvements which include advanced integrated communications to achieve the full operational capability requirement of reducing bulk and weight by at least 25%.			
Accomplishments/Planned Programs Subtotals	10.178	14.049	1.742

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Aircrew Integrated Sys Adv Dev: *RDTE, A PE 0603827A, PROJ S51 - Adv Dev*	0.141	0.164	0.161	-	0.161	0.153	0.158	0.155	0.200	Continuing	Continuing
• Aircrew Integrated Systems: *Aircraft Procurement, Army SSN AZ3110 - ACIS*	71.408	45.841	48.081	-	48.081	47.435	47.064	46.605	47.795	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Engineering and Manufacturing Development (EMD) efforts for the Air Soldier System (Air SS) program include the integration, evaluation, testing, and airworthiness qualification of aviator flight display symbology and head tracking technologies that will deliver an initial baseline capability significantly reducing the bulk and weight of Army aircrew life support and survival equipment, and significantly increasing crew member situational awareness in degraded visual environments (DVE). The baseline capability includes survival and environmental protective clothing and equipment, a day/night helmet-mounted flight symbology display, and a new Soldier Power and distribution system for an integrated suite of personal electronics that eliminate multiple batteries, displays, and processors. A pre-planned product improvement (P3I) effort follows delivery of the baseline capability to achieve a 25% bulk and weight reduction. The P3I effort integrates the current CSEL survival radio with the Encrypted Aircraft Wireless Intercom System radio to significantly reduce in aircrew mission equipment bulk and weight and improve cockpit compatibility. Continue development and integration of deferred CPD capabilities. Contracts with industry include both Cost and Firm Fixed Price using full and open competition, each evaluated and selected to appropriately share risk between industry and the government.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S61 / *Acis Engineering Development*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM Administration	Allot	Various Government : Huntsville, Alabama	1.862	0.278		0.712		0.102		-		0.102	Continuing	Continuing	Continuing
		Subtotal	1.862	0.278		0.712		0.102		-		0.102	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Air Warrior and Air Soldier System Development	C/TBD	Various Government : Various Locations	39.382	7.332		9.959		1.391		-		1.391	Continuing	Continuing	Continuing
		Subtotal	39.382	7.332		9.959		1.391		-		1.391	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Matrix Support	RO	Various Government : Various Locations	2.084	0.754		0.626		0.093		-		0.093	Continuing	Continuing	Continuing
		Subtotal	2.084	0.754		0.626		0.093		-		0.093	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental and Operational Testing	RO	Various Activities : Various Locations	6.035	1.814		2.752		0.156		-		0.156	Continuing	Continuing	Continuing
		Subtotal	6.035	1.814		2.752		0.156		-		0.156	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S61 / *Acis Engineering Development*	

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	49.363	10.178		14.049		1.742		-		1.742	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S61 / *Acis Engineering Development*

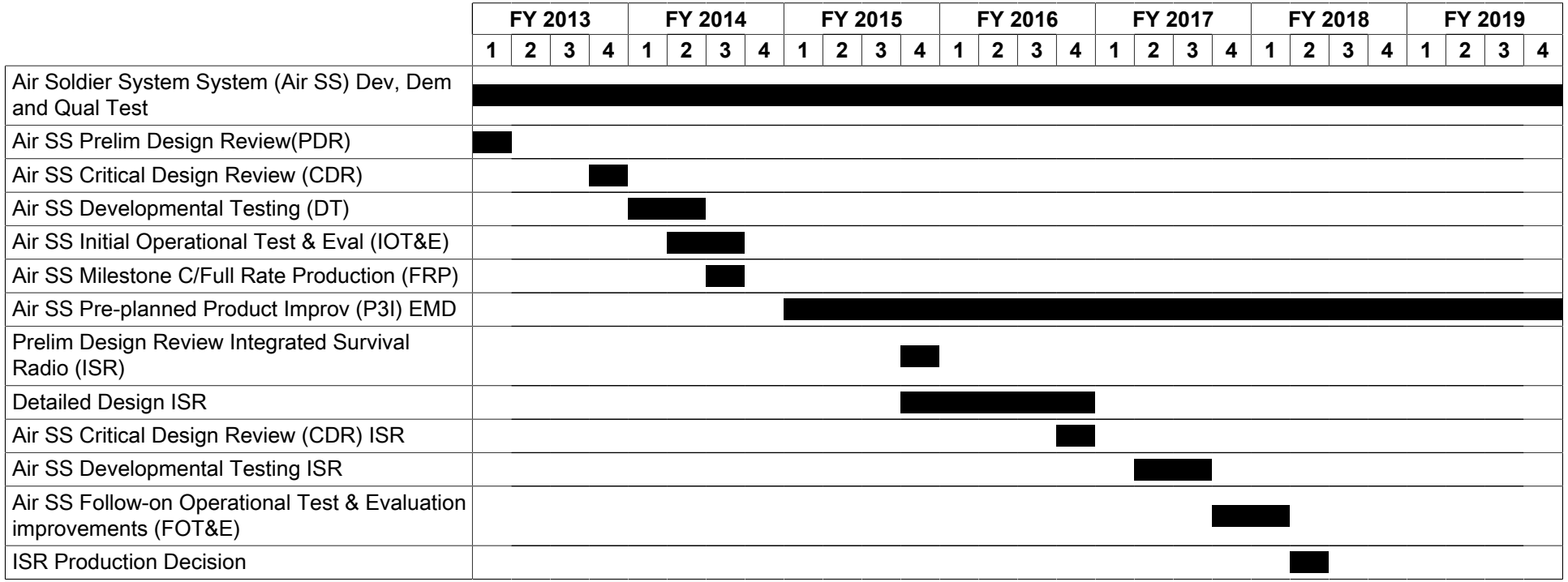

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S61 / *Acis Engineering Development*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Air Soldier System System (Air SS) Dev, Dem and Qual Test	1	2012	4	2020
Air SS Prelim Design Review(PDR)	1	2013	1	2013
Air SS Critical Design Review (CDR)	4	2013	4	2013
Air SS Developmental Testing (DT)	1	2014	2	2014
Air SS Initial Operational Test & Eval (IOT&E)	2	2014	3	2014
Air SS Milestone C/Full Rate Production (FRP)	3	2014	3	2014
Air SS Pre-planned Product Improv (P3I) EMD	1	2015	4	2020
Prelim Design Review Integrated Survival Radio (ISR)	4	2015	4	2015
Detailed Design ISR	4	2015	4	2016
Air SS Critical Design Review (CDR) ISR	4	2016	4	2016
Air SS Developmental Testing ISR	2	2017	3	2017
Air SS Follow-on Operational Test & Evaluation improvements (FOT&E)	4	2017	1	2018
ISR Production Decision	2	2018	2	2018

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S62 / *Counter-Defilade Target Engagement - SDD*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
S62: *Counter-Defilade Target Engagement - SDD*	-	37.352	12.976	7.865	-	7.865	10.834	6.903	7.301	0.987	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The Maneuver Center of Excellence (MCoE), FT Benning, GA (User Community) identifies the Counter Defilade Target Engagement (CDTE) as a critical capability gap for our Soldiers in combat. The number one materiel solution to mitigate the critical capability gap (defeating defilade (hidden) targets from 15-500m) is the XM25. The XM25 provides the Infantry Soldier with a leap-ahead overmatch capability that dramatically increases lethality, range, and capability through the use of a family of programmable 25mm ammunition and allows the Soldier to engage defilade targets with a high degree of accuracy while posing minimal burden, in terms of weight and size. The XM25 fires 25mm munitions including high-explosive airburst (HEAB) and training rounds. The XM25 comes with a target acquisition/fire control that integrates thermal capability with direct-view optics, laser rangefinder, compass, fuze setter, ballistic computer, and internal display. The XM25 has a 500-meter point target range and a 700-meter area target range capable of defeating defilade targets.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Engineering and Manufacturing Development/Fabricate	30.600	8.440	5.000
Articles:	-	-	-
Description: Description: Engineering Development and Fabrication			
FY 2013 Accomplishments: Fabricated and integrated design enhancements to the weapons system and subsystems, target acquisition/fire control (TA/FC) and ammunition identified through contractor subsystem testing and the Forward Operational Assessment (FOA). Assembled prototype systems to include weapon, TA/FC and ammunition for additional government testing. Completed fabrication of thirty-six (36) weapon systems for the second Forward Operational Assessment (FOA) 2.			
FY 2014 Plans: Implement additional system design changes identified through FOA2 corrective actions.			
FY 2015 Plans: Will establish an open system component design to incorporate technical and producible design improvements for critical electronics and optics and reduce integration complexity of components. Conduct post MS-C system level trade studies to improve system effectiveness, as well as explore ECPs to potentially reduce weight, size, and power consumption.			
Title: Engineering and Training Development	1.226	1.075	0.625

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S62 / *Counter-Defilade Target Engagement - SDD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: Description: Engineering and Training Development ***FY 2013 Accomplishments:*** Provided engineering support for weapons systems, subsystems, target acquisition/fire control (TA/FC) and software design enhancements required to perform technical design reviews. Reviews include combined system verification reviews, and production readiness review to update system engineering master plans and integrate technical design efforts. Conducted training efforts for Limited User Test (LUT). Developed new equipment training (NET) and training materials. ***FY 2014 Plans:*** Provide Engineering support for weapon systems, subsystems, target acquisition/fire control (TA/FC) and software design enhancements required to perform design reviews to include the system verification review, functional configuration audit, Production Readiness Review, and assess technical progress. Conduct training efforts for the Limited User Test (LUT). Provide engineering support to the development of the virtual training concept for the XM25. ***FY 2015 Plans:*** Will continue to provide engineering support for weapon systems, subsystems, target acquisition/fire control (TA/FC) and software design enhancements based on lessons learned from the Limited User Test (LUT). Refine and update the training material based on lessons learned during the LUT soldier training. Provide continued engineering support for the development of the XM25 virtual training concept.			
Title: Development / Operational Test and Evaluation Activities	5.148	3.073	1.842
Articles:	-	-	-
Description: Description: Test and Evaluate ***FY 2013 Accomplishments:*** Conducted government and contractor test efforts of weapon system including the target acquisition/fire control (TA/FC) and ammunition that included enhancements to address safety risks and initial contractor system level verification testing. ***FY 2014 Plans:*** Conduct government and contractor test efforts of weapon system including the target acquisition/fire control (TA/FC) and ammunition that include, Pre-Production Qualification tests, Electromagnetic Environmental Effects (E3) testing, Simulated Natural Environment Tests, Limited User Testing (LUT), and contractor system level verification testing of the TA/FC design improvements. ***FY 2015 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S62 / *Counter-Defilade Target Engagement - SDD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Will continue to conduct government test activities to evaluate engineering changes to the weapons system; these will include production qualification tests and additional user testing. Government will also evaluate and test efforts related to pre-planned product improvements. Plan, coordinate, and resource Initial Operational Test and Evaluation (IOT&E), Live Fire Test and Evaluation (LFT&E) and Logistics Demonstrations.			
Title: Program Management ***Articles:*** ***Description:*** Description: Program Management ***FY 2013 Accomplishments:*** Provided Program Management oversight for all government and contractor engineering and test activities and ensured compliance with contract requirements to include timely delivery of products and services. ***FY 2014 Plans:*** Provide program management, logistical and life cycle support, to organize, coordinate and control program activities leading up to Milestone C and transition to Low Rate Initial Production (LRIP). ***FY 2015 Plans:*** Will continue to provide Program Management oversight post Milestone C required to test and evaluate engineering changes and pre-planned product improvements to the weapon system.	0.378 -	0.388 -	0.398 -
Accomplishments/Planned Programs Subtotals	37.352	12.976	7.865

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• G16101: *(G16101) Integrated Air Burst Weapon System Family*	0.463	-	-	-	-	-	9.932	15.087	25.327	Continuing	Continuing
• E92500: *(E92500) CTG, 25MM, XM1083 High Explosive Air Burst (HEAB)*	4.506	0.001	-	-	-	-	0.198	2.180	4.957	Continuing	Continuing
• E92510: *(E92510) CTG, 24MM, XM1081Target Practice (TP)*	-	-	-	-	-	-	-	0.396	0.892	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S62 / *Counter-Defilade Target Engagement - SDD*

D. Acquisition Strategy

The XM25 transitioned from the Technology and Development phase to Engineering and Manufacturing Development (EMD) phase by achieving Milestone B in December 2010. The EMD phase completes development of the XM25 and verifies training solutions for the Milestone C approval currently scheduled for 1Qtr15. Research and Development acquisition strategy is to use sole source contracting with ATK (formerly known as Alliant Techsystems), Plymouth, MN. RDT&E initiatives will continue post Milestone C for engineering changes and pre-planned product improvements to include family of munitions and target acquisition/fire control development.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S62 / *Counter-Defilade Target Engagement - SDD*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Various	Performed by Government : Various Activities	2.215	0.378	Feb 2013	0.388	Mar 2014	0.398	Jan 2015	-		0.398	Continuing	Continuing	Continuing
		Subtotal	2.215	0.378		0.388		0.398		-		0.398	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Design, Develop & Fabricate	SS/CPFF	ATK : Plymouth, MN	65.335	30.600	Nov 2012	8.440	Mar 2014	5.000	Feb 2015	-		5.000	Continuing	Continuing	Continuing
		Subtotal	65.335	30.600		8.440		5.000		-		5.000	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	Various	Various : Multiple	6.230	1.096	Feb 2013	0.955	Mar 2014	0.555	Jan 2015	-		0.555	Continuing	Continuing	Continuing
Training Development Support	MIPR	PEO STRI : PEO STRI	0.600	0.130	Feb 2013	0.120	Mar 2014	0.070	Jan 2015	-		0.070	Continuing	Continuing	Continuing
		Subtotal	6.830	1.226		1.075		0.625		-		0.625	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental/System Tests and Articles	SS/CPFF	Performed by Contractor : ATK, Plymouth, MN	14.854	-		-		-		-		-	-	14.854	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S62 / *Counter-Defilade Target Engagement - SDD*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental/ Operational Tests	Various	Performed by Government : Various Activities	5.481	5.148	Feb 2013	3.073	Mar 2014	1.842	Dec 2014	-		1.842	Continuing	Continuing	Continuing
		Subtotal	20.335	5.148		3.073		1.842		-		1.842	-	-	-

Remarks

In FY 2015, funding will be used to continue target acquisition/fire control and family of munitions development and operational test efforts on engineering changes to weapon systems.

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	94.715	37.352		12.976		7.865		-		7.865	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S62 / *Counter-Defilade Target Engagement - SDD*

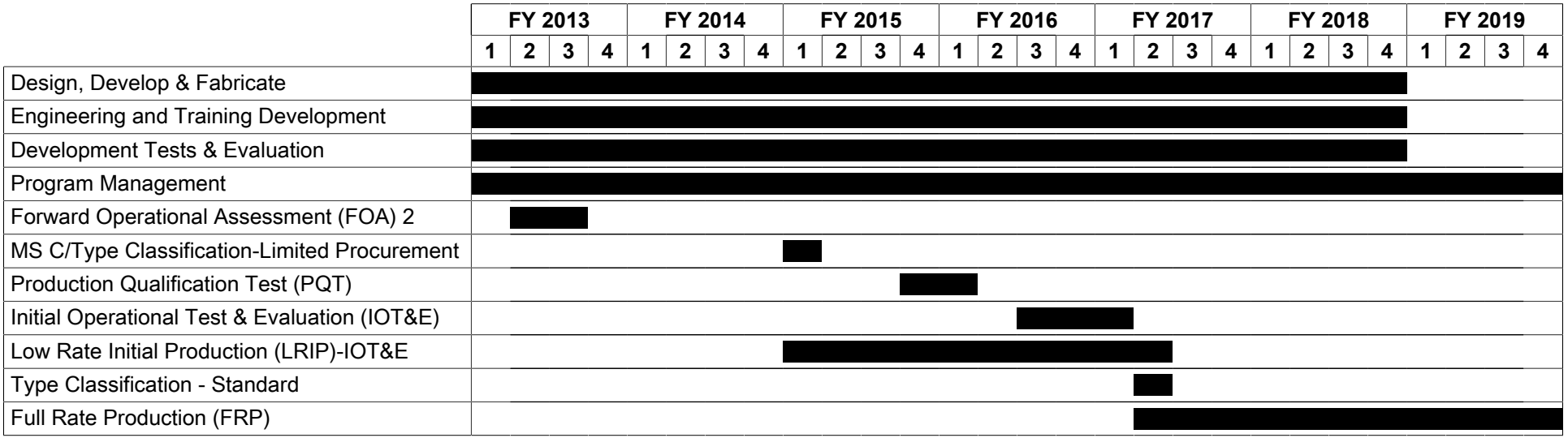

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S62 / *Counter-Defilade Target Engagement - SDD*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Design, Develop & Fabricate	1	2011	4	2018
Engineering and Training Development	1	2011	4	2018
Development Tests & Evaluation	1	2011	4	2018
Program Management	1	2011	4	2019
Forward Operational Assessment (FOA) 2	2	2013	3	2013
MS C/Type Classification-Limited Procurement	1	2015	1	2015
Production Qualification Test (PQT)	4	2015	1	2016
Initial Operational Test & Evaluation (IOT&E)	3	2016	1	2017
Low Rate Initial Production (LRIP)-IOT&E	1	2015	2	2017
Type Classification - Standard	2	2017	2	2017
Full Rate Production (FRP)	2	2017	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S63 / *Small Arms Improvement*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
S63: *Small Arms Improvement*	-	13.201	17.836	4.393	-	4.393	14.294	14.408	14.496	17.805	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

New starts in FY 2015 include Miniguns and transitions Individual Non-Lethal System and Protective Coatings from Program Element 0603827A Project S54.

A. Mission Description and Budget Item Justification

The Small Arms Improvement Engineering and Manufacturing Development (EMD) program provides funds to transition components or prototypes from Small Arms Improvement, Project S54, Program Element 0603827A, (Budget Activity 4) and other domestic and foreign sources of small arms weapons to demonstrate, test and evaluate capability near or at planned operational requirements. Small arms systems include weapons ranging up to 40 millimeter in caliber. Current and future efforts focus on system improvements designed to enhance lethality, target acquisition, fire control, training effectiveness and reliability of weapons to include ammunition when developing and/or evaluating standard and non-standard weapons. Focus areas include system development, integration, demonstration, test and evaluate components, prototypes and operational system prototypes of small arms weapons and/or enhancements. Benefits include continuous improvements to small arms weapons, fire control equipment, optics, gun barrels, ancillary equipment, training devices, component mounts, weapon mounts, and weapon/ammunition interface of current small arms fleet or new weapon systems.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: New Weapons	5.953	2.350	4.193
Articles:	-	-	-
Description: Description: Development of new weapons			
FY 2013 Accomplishments: Individual Carbine Competition: Concluded in FY 2013. Precision Sniper Rifle (PSR): Generated PSR requirements document and cost-benefit analysis.			
FY 2014 Plans: Precision Sniper Rifle (PSR): Support requirements document comment adjudication from 1-Star Joint Capabilities Integration and Development System (JCIDS) staffing as well as cost-benefit analysis exercises to support program decision making. FY2014 New Start Squad Designated Marksman Rifle (SDM): Supports requirement definition and analysis process. Modular Handgun System (MHS): Select commercially available Modular Handgun System (MHS) for the Army. Conduct Phase I Developmental and Operational Testing on the selected MHS. Update Acquisition Plan and Systems Engineering Plan as required.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S63 / *Small Arms Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY2014 New Start M3 Multi-Role Anti-Armor Anti-Personnel Weapon System (MAAWS): Conduct testing, evaluation, and documentation required for Type Classification Standard. ***FY 2015 Plans:*** Modular Handgun System (MHS): Conduct Phase II bid sample testing, continue test and evaluation and review and reduce test data. Prepare and plan for transition from research, development, test and evaluation (RDT&E) to low rate initial production (LRIP). Miniguns: Will evaluate various externally powered weapons, including miniguns, for suitability and performance, and potential standardization on remote weapon stations.			
Title: Small Arms Weapons Enhancements	3.749	5.295	0.100
Articles:	-	-	-
Description: Description: Enhancements and developments of small arms weapons ***FY 2013 Accomplishments:*** M4 Carbine Product Improvement Program: Awarded hardware delivery orders to conduct final test and evaluation of the rail system. Weapons Reliability Program: Transitioned initiative from Small Arms Improvement, Project S54, Program Element 0603827A (Budget Activity 4). Completed design of experiments, magazine prototype modifications and contract modifications and initiated test planning and coordination for magazine confirmatory test. Small Arms Signature Reduction (SASR) Suppressor Technology: Completed Human Eye Flash Detection Experiment. Human Research and Engineering Directorate/Army Research Laboratory (HRED/ARL) Technology Program Agreement approved. Improved Weapons Cleaning Kits: Awarded competitive contract for the updated cleaning kits. Compact Semi-Automatic Sniper System (CSASS): Completed strategy and procurement package for lightweight compact Semi-Automatic Sniper System (SASS) in accordance with Pre-Planned Product Improvement (P3I) provisions of the SASS ORD. Material solution may be large scale SASS (M110) Engineering Change Proposal (ECP) or new weapon system. Sniper Upgrades: Continued system testing and evaluation of components enhancements of the M110 Semi-Automatic Sniper System, M110E1 Compact Semi-Automatic Sniper Systems and XM2010 Enhanced Sniper Rifle. Shock Reduction: Completed assessment of 3D recoil and shock spectrum measurement techniques to determine viability of introducing new standard for testing small arms weapons for felt recoil and weapon device shock survivability. . ***FY 2014 Plans:*** M4 Carbine Product Improvement Program (PIP):			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S63 / *Small Arms Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Comprehensive technical testing will be performed during second quarter FY 2014. A limited user evaluation (LUE) will be conducted early third quarter FY 2014. A cost-benefit analysis and down selection evaluation will be completed in fourth quarter FY 2014. Production decision (if applicable) in late fourth quarter FY 2014. Small Arms Signature Reduction (SASR) Suppressor Technology: Development of operational relevant human perception model for suppressor's flash and noise measurement. Review of current Military Standard (MIL-STD) and test Operational Procedure for measuring suppressor performances. Compact Semi-Automatic Sniper System (CSASS): Down select CSASS competitors from competitive evaluation/testing phase to conduct system testing and user evaluation. Perform down-selection of most qualified vendors and award a single competitive contract. Weapons Reliability Program: Took receipt of 1,000 prototype magazines from Center Industries and began confirmatory test at Aberdeen Test Center. Test planned to conclude in third quarter FY 2014 and scoring of final results in third and fourth quarter FY 2014. Implement new test standard of measuring small arms felt recoil. Continue studies and evaluate increased barrel life/chrome replacement, protective coatings, and reduced recoil. Assess weapons reliability testing of functional impact with the introduction of enhanced performance ammunition on current small caliber weapon designs. Areas of potential impact include weapon system reliability, durability, and maintainability. Transition barrel twist optimization from Small Arms Improvement, Project S54, Program Element 0603827A (Budget Activity 4). FY 2014 New Start Powered Rail: Development consisting of integrating Commercial Off-The-Shelf (COTS) components on powered rail platform in order to evaluate system level performance; system level integration efforts to further develop the components and ensure that the foundational architecture is sufficient for future applications; and optimizing power and data management to support integration of various data applications amongst peripherals. FY 2014 New Start Gain Twist Rifling: Support testing and data analysis of delivered prototype hardware. ***FY 2015 Plans:*** Will continue studies and evaluate increased barrel life/chrome replacement, protective coatings, reduced recoil, and Individual Non-Lethal Systems.			
Title: Ammunition	2.122	2.881	-
Articles:	-	-	-
Description: Description: Improvement of small arms ammunition ***FY 2013 Accomplishments:*** XM1112 Airburst Non Lethal Munition (ANLM):			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S63 / *Small Arms Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Resolved technical issues with batteries and circuit boards, verified battery and circuit boards performance, and rebuilt hardware for integration test. ***FY 2014 Plans:*** XM1112 Airburst Non Lethal Munition (ANLM): Complete integration test, conduct Critical Design Review (CDR) and build Developmental Test (DT) Hardware. FY2014 New Start XM1116 12 Gauge Non Lethal Extended Range: Prepare for the Type Classification package which at this point is still awaiting the approved Capability Production Document (CPD) in Joint Capabilities Integration and Development System (JCIDS) staffing. Will evaluate the rounds performance with the M26. Evaluate effect of new ammunition on small arms weapons.			
Title: Combat Optics	0.575	0.825	-
Articles:	-	-	-
Description: Description: Improvement of combat optics ***FY 2013 Accomplishments:*** Transitioned Squad Common Optic from Small Arms Improvement, Project S54, Program Element 0603827A, (Budget Activity 4). ***FY 2014 Plans:*** Squad Common Optic (SCO): Draft acquisition plan and operational assessment of Commercial Off-The-Shelf (COTS) optics to validate a common power optic across weapon platforms. FY2014 New Start Mounted Machine Gun Optic (MMO): Evaluate current technology and Off the Shelf Items to verify claims and determine if all MMO Capability Development Document (CDD) requirements can be met by said current technology. Develop Acquisition Strategy and plan to support CDD and provide Analysis of Alternatives for stakeholders.			
Title: Fire Control	0.802	6.485	-
Articles:	-	-	-
Description: Description: Improvement of small arms fire control ***FY 2013 Accomplishments:*** M320 Grenade Launcher: Acquisition Plan and Acquisition Strategy approved second quarter FY 2013. Grenadier Sighting System (GSS): Market survey released third quarter FY 2013. GSS Industry Day number one conducted fourth quarter FY 2013 and GSS Program strategy revised fourth quarter FY 2013. ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S63 / *Small Arms Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Grenadier Sighting System (GSS): Revise GSS program documentation to reflect change in strategy from a Non Developmental Item (NDI) to Research and Development effort. Conduct Industry Day and release final Request for Proposal (RFP) in third quarter FY 2014. Integrated Ballistic Reticle System (IBRS): Complete transition of the integrated fire control for small arms program from Small Arms Improvement, Project S54, Program Element 0603827A, (Budget Activity 4) and initiate engineering manufacturing development phase. Evaluate hyperspectral tracking of targets.			
Title: Research and Analysis ***Description:*** Research and analysis of small arms ***FY 2015 Plans:*** Conduct Market Research and Cost Benefit Analysis of ongoing small arms initiatives to refine requirements and identify multiple solution sets. The following programs will be evaluated in FY 2015; Grenadier Sighting System, Compact Semi-Automatic Sniper System, Carl Gustaf M3, 12 Gauge and 40mm Non-Lethal ammunition, powered rail, mounted machinegun optic, squad common optic, Integrated Ballistic Reticule System, Squad Designated Marksman Rifle and Small Business Innovative Research enhancements.	-	-	0.100
Accomplishments/Planned Programs Subtotals	13.201	17.836	4.393

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Small Arms Improvement: *RDTE S54, Program Element 0603827A - Soldier Systems - Advanced Development*	4.533	4.258	1.029	-	1.029	8.441	6.296	5.624	7.613	Continuing	Continuing
• M4 Carbine MODS: *WTCV, GB3007, M4 Carbine MODS*	27.207	8.300	3.446	-	3.446	27.953	21.270	21.567	13.426	Continuing	Continuing
• M16 Rifle Mods: *WTCV, GZ2800, M16 Rifle MODS*	2.959	2.136	1.952	-	1.952	1.784	1.339	1.737	3.479	Continuing	Continuing
• Sniper Rifle MODS: *WTCV, GZ1500, Sniper Rifle MODS*	14.094	7.017	4.079	-	4.079	8.706	5.416	8.169	8.943	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S63 / *Small Arms Improvement*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• M249 SAW MODS: *WTCV, GZ1290, M249 Squad Automatic Weapon (SAW) MODS*	4.989	7.608	5.546	-	5.546	4.169	6.325	5.757	5.767	Continuing	Continuing
• M240 Medium Machine Gun MODS: *WTCV, GZ1300, M240 Medium Machine Gun MODS*	6.797	2.719	4.635	-	4.635	4.236	4.814	4.963	4.971	Continuing	Continuing
• M2 .50 CAL Heavy Machine Gun MODS: *WTCV, GB4000, M2 .50 CAL Heavy Machine Gun MODS*	39.921	33.691	25.296	-	25.296	44.365	65.443	57.171	13.959	Continuing	Continuing
• Modification Less Than $5.0M: *WTCV, GC0925, Modifications Less Than $5.0M*	3.068	1.569	2.089	-	2.089	3.768	3.211	3.521	3.527	Continuing	Continuing
• Handgun: *WTCV, G15325, Handgun*	-	0.300	3.957	-	3.957	3.970	9.933	9.925	9.932	Continuing	Continuing

Remarks

In support of Small Arms Requirements, components or prototypes developed in Small Arms Improvement, Project S54, Program Element 0603827A, (Budget Activity 4) is transitioned to Small Arms Improvement, Project S63, Program Element 0604601A, (Budget Activity 5) to conduct engineering and manufacturing development. Once the component, prototype or operational prototype achieves Milestone C and type classification the item transitions to small arms weapon production or modification program.

D. Acquisition Strategy

Primary strategy is to mature and finalize design efforts, award Research, Development, Test and Evaluation (RDT&E) hardware contracts, and test and evaluate systems that result in type classification and follow-on production contract awards.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S63 / *Small Arms Improvement*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Allot	PM Soldier Weapons, : Picatinny Arsenal	6.517	1.000	Apr 2013	0.500	Mar 2014	0.500	Mar 2015	-		0.500	Continuing	Continuing	Continuing
Travel	MIPR	PM Soldier Weapons, : Picatinny Arsenal	0.784	0.250	May 2013	0.050	Mar 2014	0.103	Mar 2015	-		0.103	Continuing	Continuing	Continuing
		Subtotal	7.301	1.250		0.550		0.603		-		0.603	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Fabrication	C/TBD	Various : Multiple Contractors	0.000	0.250	May 2013	1.200	Mar 2014	0.450	Mar 2015	-		0.450	Continuing	Continuing	Continuing
Hardware Development	MIPR	Army Research Development Engineering Centers, : Multiple	7.129	0.075	Feb 2013	0.750	Mar 2014	-		-		-	Continuing	Continuing	Continuing
		Subtotal	7.129	0.325		1.950		0.450		-		0.450	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering	MIPR	Army Research Development Engineering Centers, : Multiple	26.822	4.500	Apr 2013	8.412	Mar 2014	0.820	Mar 2015	-		0.820	Continuing	Continuing	Continuing
Logistics	MIPR	TACOM, : Warren	2.595	0.351	Apr 2013	1.200	Mar 2014	0.200	Mar 2015	-		0.200	Continuing	Continuing	Continuing
Human Research and Engineering	MIPR	Army Research Laboratory, : Aberdeen Proving Ground	2.322	0.100	Apr 2013	0.500	Mar 2014	0.200	Mar 2015	-		0.200	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	31.739	4.951		10.112		1.220		-		1.220	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Testing	MIPR	Army Developmental Test Command, : Aberdeen Proving Ground	14.348	4.200	Apr 2013	4.224	Mar 2014	1.020	Mar 2015	-		1.020	Continuing	Continuing	Continuing
Operational Testing	MIPR	Army Test and Evaluation Command, : Aberdeen Proving Ground	6.071	2.375	May 2013	0.800	Mar 2014	0.900	Mar 2015	-		0.900	Continuing	Continuing	Continuing
Validation Testing	MIPR	Army Test and Evaluation Centers, : Multiple	4.712	0.100	May 2013	0.200	Mar 2014	0.200	Mar 2015	-		0.200	Continuing	Continuing	Continuing
		Subtotal	25.131	6.675		5.224		2.120		-		2.120	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	71.300	13.201		17.836		4.393		-		4.393	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S63 / *Small Arms Improvement*

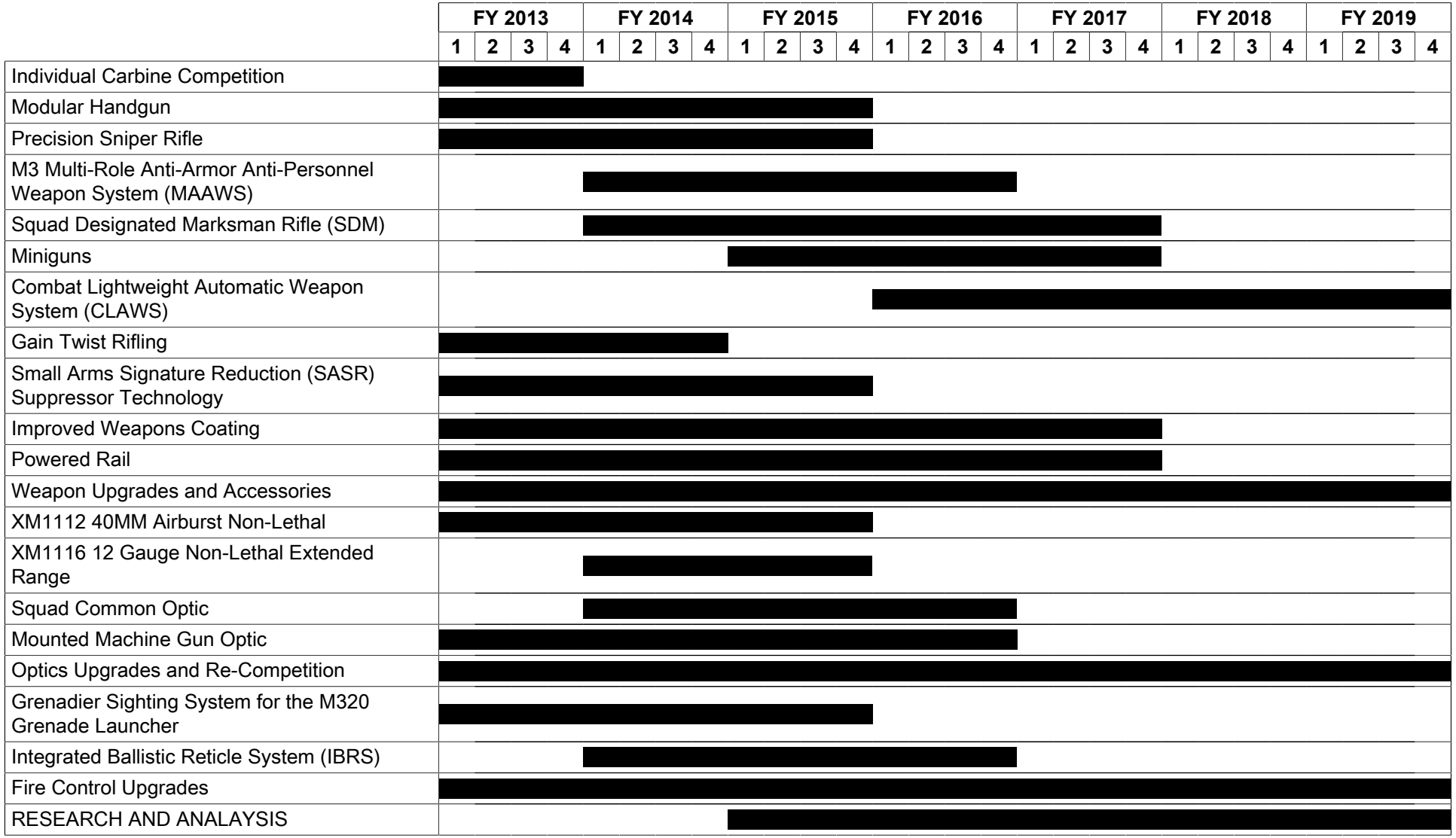

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S63 / *Small Arms Improvement*

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Research and Analysis of Small Arms																												

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S63 / *Small Arms Improvement*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Individual Carbine Competition	1	2010	4	2013
Modular Handgun	1	2012	4	2015
Precision Sniper Rifle	1	2012	4	2015
M3 Multi-Role Anti-Armor Anti-Personnel Weapon System (MAAWS)	1	2014	4	2016
Squad Designated Marksman Rifle (SDM)	1	2014	4	2017
Miniguns	1	2015	4	2017
Combat Lightweight Automatic Weapon System (CLAWS)	1	2016	4	2019
Gain Twist Rifling	1	2013	4	2014
Small Arms Signature Reduction (SASR) Suppressor Technology	1	2011	4	2015
Improved Weapons Coating	1	2011	4	2017
Powered Rail	1	2013	4	2017
Weapon Upgrades and Accessories	1	2008	4	2019
XM1112 40MM Airburst Non-Lethal	1	2010	4	2015
XM1116 12 Gauge Non-Lethal Extended Range	1	2014	4	2015
Squad Common Optic	1	2014	4	2016
Mounted Machine Gun Optic	1	2013	4	2016
Optics Upgrades and Re-Competition	1	2008	4	2019
Grenadier Sighting System for the M320 Grenade Launcher	1	2009	4	2015
Integrated Ballistic Reticle System (IBRS)	1	2014	4	2016
Fire Control Upgrades	1	2008	4	2019
RESEARCH AND ANALAYSIS	1	2015	4	2019
Research and Analysis of Small Arms	1	2015	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S64 / *Common Remotely Operated Wpn Sys (CROWS)*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
S64: *Common Remotely Operated Wpn Sys (CROWS)*	-	-	9.459	2.458	-	2.458	3.447	4.437	3.453	2.730	-	25.984
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The Maneuver Support Center of Excellence (MSCoE) at FT Leonard Wood, MO (user community) has identified continued development of the Common Remotely Operated Weapon Station (CROWS) as a critical improvement for the Soldier in the combat environment. By addressing the capability gap of non-turreted, lightly armored vehicles where the gunner is exposed to enemy fire, the current CROWS system provides the ability to rapidly and accurately locate and engage the enemy while allowing platform gunners to remain under armor, thereby providing greater protection and increasing overall lethality.

While addressing obsolescence, additional modifications to address operational concerns identified in the Operational Test Agency Milestone Assessment Report (OMAR) and user community feedback in contingency operations will be developed and integrated into the CROWS system, to include: improved system survivability for optics; vehicle commander display and firing override ability; future generation Forward Looking Infrared (FLIR); auto-zoom; auto-tracking; auto-detection and targeting; integration of future weapon systems; improved sensors for increased situational awareness; through-sight video recording; improved rounds counter; integration of Escalation of Force (EOF) capabilities. In addition to these capabilities, development efforts will be pursued, to include improvements to component reliability that will extend system life and design changes that will limit the cost and quantity of parts and reduce the system's logistics footprint.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Technology Refresh and Obsolescence	-	8.364	0.793
Articles:	-	-	-
Description: Description: Technology Refresh and Obsolescence ***FY 2014 Plans:*** As a prerequisite to developing improvements involving enhanced sensors, infrared sights, video capabilities and situational awareness, the contractor designs and fabricates an improved fire control unit (FCU) processor, to include ethernet channels in the system's slip ring, in order to facilitate the greater data through-put required. ***FY 2015 Plans:*** Contractor will complete design and fabrication of an improved fire control unit (FCU) processor, to include ethernet channels in the system's slip ring, in order to facilitate the greater data through-put required.			
Title: Engineering Support	-	0.645	0.805

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S64 / *Common Remotely Operated Wpn Sys (CROWS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: Description: Government Engineering Support. ***FY 2014 Plans:*** Provides engineering support and oversight of design improvements; preparation of the performance specifications for the contractor; development of new processor and slip-ring that facilitates target acquisition and designation, command override, infrared and video capabilities. ***FY 2015 Plans:*** Will continue to provide engineering support and oversight of design improvements and contractor performance; development of enhanced sensors, infrared sights, video capabilities and situational awareness.			
Title: Development Test and Evaluation	-	-	0.110
Description: Description: Test and Evaluation ***FY 2015 Plans:*** Will develop testing and evaluation criteria and documentation and conduct initial developmental testing and evaluation of improvements.			
Title: Program Management	-	0.450	0.750
Articles:	-	-	-
Description: Description: Program Management. ***FY 2014 Plans:*** The program management office and the proponents in the user community at the Maneuver Support Center provide oversight of product design and development, to include engineering support, contract actions and test activities throughout the fiscal year. ***FY 2015 Plans:*** The program management office and the proponents in the user community at the Maneuver Support Center will continue to provide oversight of product design and development, to include engineering support, contract actions and test activities throughout the fiscal year. Program management office will facilitate test events at various government laboratories to test prototype units of the improved fire control unit processor and system slip ring, in order to quantify performance with the most current sensors and effectors, and manages the life cycle of the program to include future acquisition and sustainment plans.			
Accomplishments/Planned Programs Subtotals	-	9.459	2.458

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S64 / *Common Remotely Operated Wpn Sys (CROWS)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• CROWS (G04700, W&TCV): *W&TCV, G04700, CROWS*	56.650	41.563	8.409	-	8.409	8.436	8.443	8.437	16.388	-	148.326

Remarks

D. Acquisition Strategy

The Common Remotely Operated Weapon Station (CROWS) uses a single-step acquisition approach in its strategy. The CROWS achieved Type Classification Standard in 3QFY11, Full Materiel Release in 3QFY12 and Full Rate Production in 4QFY12, in accordance with the Capability Production Document (CPD) Increment One (1), as clarified in June 2009.

The program objective is to continue developing, improving and fielding the CROWS on Up-Armored High Mobility Multipurpose Wheeled Vehicles (UA-HMMWV), M1A2 Abrams Main Battle Tank and other combat vehicles to the Army Acquisition Objective (AAO) in accordance with the Basis of Issue Plan (BOIP). In addition, the program supports new and emerging urgent requirements like the integration of the Mine Resistant Ambush Protected (MRAP) family of vehicles, ground combat systems, Joint Lightweight Tactical Vehicles (JLTV) and fixed site mounting systems.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S64 / *Common Remotely Operated Wpn Sys (CROWS)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	MIPR	PM Soldier Weapons : Picatinny Arsenal, NJ	0.053	-		0.450	Mar 2014	0.750	Mar 2015	-		0.750	Continuing	Continuing	-
		Subtotal	0.053	-		0.450		0.750		-		0.750	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Refresh and Obsolescence	SS/FFP	Kongsberg Protech Systems USA : Johnstown, PA	0.000	-		8.364	Aug 2014	0.793	Mar 2015	-		0.793	Continuing	Continuing	-
		Subtotal	0.000	-		8.364		0.793		-		0.793	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	MIPR	ARDEC : Picatinny Arsenal, NJ	0.103	-		0.645	Mar 2014	0.805	Mar 2015	-		0.805	Continuing	Continuing	-
		Subtotal	0.103	-		0.645		0.805		-		0.805	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Planning and Execution	Various	Various : Multiple	0.017	-		-		0.110	Mar 2015	-		0.110	Continuing	Continuing	-
		Subtotal	0.017	-		-		0.110		-		0.110	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S64 / *Common Remotely Operated Wpn Sys (CROWS)*	

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.173	-		9.459		2.458		-		2.458	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S64 / *Common Remotely Operated Wpn Sys (CROWS)*

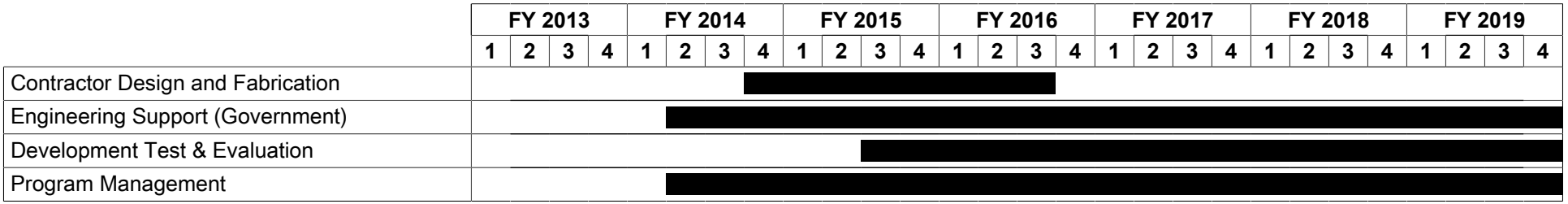

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S64 / *Common Remotely Operated Wpn Sys (CROWS)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Contractor Design and Fabrication	4	2014	3	2016
Engineering Support (Government)	2	2014	4	2019
Development Test & Evaluation	3	2015	4	2019
Program Management	2	2014	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S70 / *Personnel Recovery Support System (PRSS)*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
S70: *Personnel Recovery Support System (PRSS)*	-	4.090	1.132	0.543	-	0.543	1.123	1.176	1.177	1.180	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

This project provides the continued maturation of PRSS products that enable operations to report and locate isolated, missing, detained or captured Soldiers. The PRSS program consists of the enhancement of existing products to ensure continued successful interoperability within the relevant theater of operations and the Continental United States (CONUS), and the demonstration of a production representative encrypted Personnel Recovery Device (PRD) that operates over a secure architecture.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Development of Personnel Recovery Support System (PRSS)	4.090	1.132	0.543
Articles:	-	-	-
Description: Integration, evaluation, testing, and qualification of PRSS products to ensure continued successful interoperability within the relevant theater of operation, and development of a PRD that operates over a secure architecture. ***FY 2013 Accomplishments:*** Successfully completed development of a prototype PRD and receiver and conducted PRSS 1b system level test and evaluation. ***FY 2014 Plans:*** Continue PRSS 1b system level test and evaluation, and begin integration of receivers onto the communications infrastructure of mission partners at various locations. ***FY 2015 Plans:*** Complete integration and test of receivers onto the communications infrastructure. Conduct evaluation and test of PRD production representative articles in support of competitive production contract downselect.			
Accomplishments/Planned Programs Subtotals	4.090	1.132	0.543

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S70 / *Personnel Recovery Support System (PRSS)*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Personnel Recovery Support Sys OPA: *Other Procurement, Army, G01101-Personnel Recovery Support System (PRSS)*	11.207	26.526	16.728	-	16.728	14.948	11.700	11.107	6.831	Continuing	Continuing
• Aircrew Integrated Systems APA: *Aircraft Procurement, Army AZ3110-ACIS includes funding of Personnel Recovery Support Equipment aircraft mods*	71.408	45.841	-	-	-	-	-	-	-	-	117.249

Remarks

Aircraft Procurement, Army SSN of AZ3110 - ACIS primarily includes the funding of traditional Aircrew Integrated Systems efforts including Air Warrior and Air Soldier System requirements; as well as support Personnel Recovery Support System (PRSS) platform interoperability production program through FY2014.

D. Acquisition Strategy

Execute PRSS program development effort for performance optimization through contracts with industry and Military Interdepartmental Purchase Requests to other Governmental agencies. Perform continuing development and test of new waveforms on an annual basis to mitigate potential security compromises to the PRSS system.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S70 / *Personnel Recovery Support System (PRSS)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM Adminstration	Allot	Various Government : Huntsville, Alabama	0.581	0.136		0.050		0.052		-		0.052	Continuing	Continuing	Continuing
		Subtotal	0.581	0.136		0.050		0.052		-		0.052	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Personnel Recovery Support System Development Systems Engineering	MIPR	Various Organizations : Various Locations	3.295	3.312		0.310		0.120		-		0.120	Continuing	Continuing	Continuing
		Subtotal	3.295	3.312		0.310		0.120		-		0.120	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Matrix Support	MIPR	Various Organizations : Various Locations	0.972	0.291		0.337		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.972	0.291		0.337		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Testing	MIPR	Various Organizations : Various Locations	0.600	0.351		0.435		0.371		-		0.371	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) S70 / *Personnel Recovery Support System (PRSS)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	0.600	0.351		0.435		0.371		-		0.371	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	5.448	4.090		1.132		0.543		-		0.543	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S70 / *Personnel Recovery Support System (PRSS)*

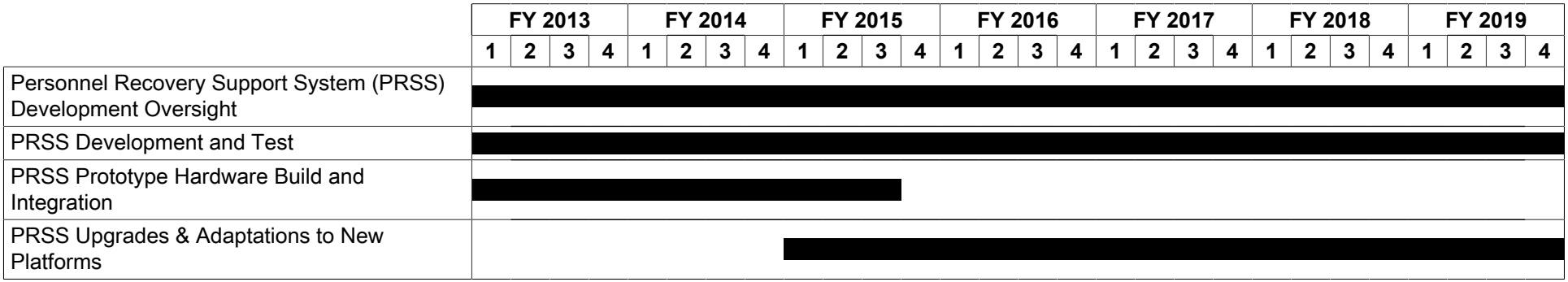

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** S70 / *Personnel Recovery Support System (PRSS)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Personnel Recovery Support System (PRSS) Development Oversight	1	2010	4	2019
PRSS Development and Test	1	2010	4	2019
PRSS Prototype Hardware Build and Integration	3	2010	3	2015
PRSS Upgrades & Adaptations to New Platforms	1	2015	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) VS5 / *Soldier Protective Equipment*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
VS5: *Soldier Protective Equipment*	-	10.646	20.032	4.833	-	4.833	16.737	13.057	10.329	10.350	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This funding supports the System Development and Demonstration (SDD) phase of Engineering and Manufacturing Development (EMD) tasks related to Individual Soldier Ballistic Protection. It funds system integration and formal Developmental Testing/Operational Testing (DT/OT) of production representative systems leveraging advancements in technology to continue incremental improvements (sizing, functionality, heat management and reduction of weight/bulk) of body armor, and the transition of new technologies into production as they mature. It funds efforts to assess head protection component technologies to mitigate the effects of ballistic/blast and non-ballistic impact (crash) threats. It also funds effort to increase eyewear ballistic/blast protection, and transition products to production.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Soldier Protective Equipment	10.646	20.032	4.833
Articles:	-	-	-

Description: Funding line established in FY12. Effort was previously executed in Program Element 0604601 S60. Effort is to increase the Warfighter lethality and mobility, by optimizing Soldier protection while effectively managing all life cycle aspect of Personal Protective Equipment (PPE).

FY 2013 Accomplishments:

Completed System Capability & Manufacturing Process Demonstration (SC&MPD) phase for the Family of Concealable Body Armor (FoCBA) and received a Type Classification (Milestone C) decision in 2QFY13. Obtained a Materiel Development Decision (MDD) for the Soldier Protection System (SPS) in 1QFY13 and a Milestone B Decision in 3QFY13. Awarded SPS Transition Combat Eye Protection (TCEP) and Vital Torso Protection System (VTPS) development contracts in 4QFY13. FY13 efforts concentrated on the integration of more mature VTPS, TCEP and Torso Protection (TP) subsystems to enhance SPS form, fit and comfort for all Soldiers. Initiated requalification efforts in 1QFY13 to the Authorized Protective Eyewear List (APEL) including the Universal Prescription Lens Carrier requirement. Released APEL re-qualification notice to industry in 3QFY13. Received APEL candidate submissions, initiated characterization, and physical property testing in 4QFY13.

FY 2014 Plans:

Complete characterization testing and initiate Soldier Human Factors Evaluations of APEL requalification candidates in 2QFY14. Complete APEL/QPL requalification program (including Universal Prescription Lens Carrier) by 4QFY14. Initiate and complete Soldier Protective System (SPS) TCEP Human Factors testing of Phase I (DT 1) prototypes by 1QFY14. Initiate and complete TCEP DT 1 ballistic testing by 2QFY14 and exercise 2nd Contract Option of TCEP development contract by 3QFY14. Awarded

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** VS5 / *Soldier Protective Equipment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
SPS Integrated Head Protection System (IHPS) development contracts in 1QFY14. Awarded the Torso Protection (TP) Subsystem development contracts in 2QFY14. Continue SPS System Capability & Manufacturing Process Demonstration (SC&MPD) activities. FY14 efforts will focus on the completion of Vital Torso Protection (VTP) Characterization Testing by 3QFY14, and awarding Phase II contract options to support continued refinement and integration (build-test-fix-build) of the SPS subsystems. Conduct Critical Design Reviews and award contract options for formal Developmental Test (DT) hardware, Human Factors and System-Level test items to conduct SPS DT/OT through 2QFY15. Support development of the SPS Capability Production Document and prepare for a Milestone C Decision (Type Classification - Low Rate Initial Production (OMA, 121017, Central Funding and Fielding) by 3QFY15. ***FY 2015 Plans:*** Initiate development of SPS subsystems and components transitioned from Advanced Component Development and Prototypes (ACD&P) and Integrated System Design (ISD). Complete DT/OT of SPS Subsystems (VTP, TP, IHPS, TCEP) and achieve a Milestone C Decision (Type Classification - Low Rate Initial Production (OMA, 121017, Central Funding and Fielding) by 3QFY15. Continue to evaluate component and subsystem technologies across the PPE portfolio (extremities, torso and vital torso, head and face protection) from emerging ballistic/blast threats. Continue efforts to reduce SPS weight and bulk at the system, subsystem and component level. Continue efforts to increase durability and functional service life. Continue development of ballistic inserts for female and small statured Soldiers through 1QFY16 as the components and subsystems mature.			
Accomplishments/Planned Programs Subtotals	10.646	20.032	4.833

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• VS4 6.4 RDTE: *RDTE, 0603827A.VS4, Soldier Protective Equipment*	14.513	3.686	2.690	-	2.690	5.447	5.267	4.427	4.441	-	40.471
• OMA: *OMA, 121017, Central Funding & Fielding*	51.773	103.460	127.085	-	127.085	126.907	179.862	172.351	188.833	-	950.271

Remarks

D. Acquisition Strategy

Acquisition strategies vary in methods to include the following: (1) Low Risk Enhancements in 12-24 months or less to integrate, validate and make a production decision; (2) modernization (through spares) improvements which require limited RDT&E funding and are completed in 24-48 months and inserted as engineering changes to existing or pending production contracts; and (3) fully integrated development that requires substantial RDT&E funding and is completed in four years or more.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** VS5 / *Soldier Protective Equipment*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) VS5 / *Soldier Protective Equipment*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SETA Support	Various	PM SPE : various	0.200	0.300		0.400		-		-		-	Continuing	Continuing	-
		Subtotal	0.200	0.300		0.400		-		-		-	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev/Integ Contracts	Various	Various : Various	1.276	7.518		15.197		2.413		-		2.413	Continuing	Continuing	-
Prod Sys Engineering Spt	MIPR	various : various	0.669	0.828		1.096		0.530		-		0.530	Continuing	Continuing	-
		Subtotal	1.945	8.346		16.293		2.943		-		2.943	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Misc Support Costs	MIPR	Various : Various	0.600	0.600		0.600		-		-		-	-	1.800	-
		Subtotal	0.600	0.600		0.600		-		-		-	-	1.800	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DT/Ballistic & OT Test Costs	SS/TBD	Various DTC & OTC : Various DTC & OTC	1.114	1.400		2.739		1.890		-		1.890	Continuing	Continuing	-
		Subtotal	1.114	1.400		2.739		1.890		-		1.890	-	-	-

	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.859	10.646		20.032		4.833		-		4.833	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / *Infantry Support Weapons*	Project (Number/Name) VS5 / *Soldier Protective Equipment*	

	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** VS5 / *Soldier Protective Equipment*

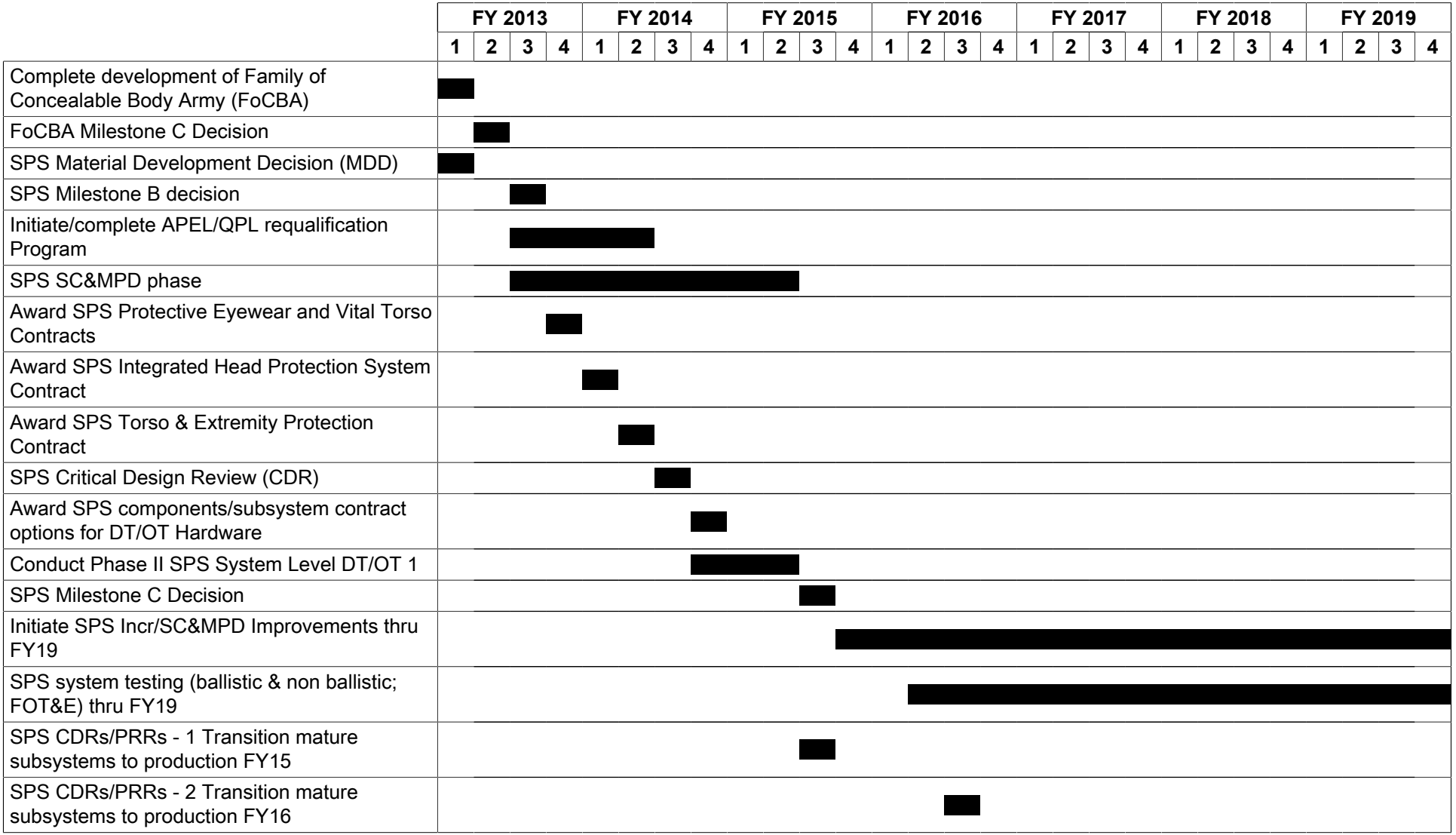

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** VS5 / *Soldier Protective Equipment*

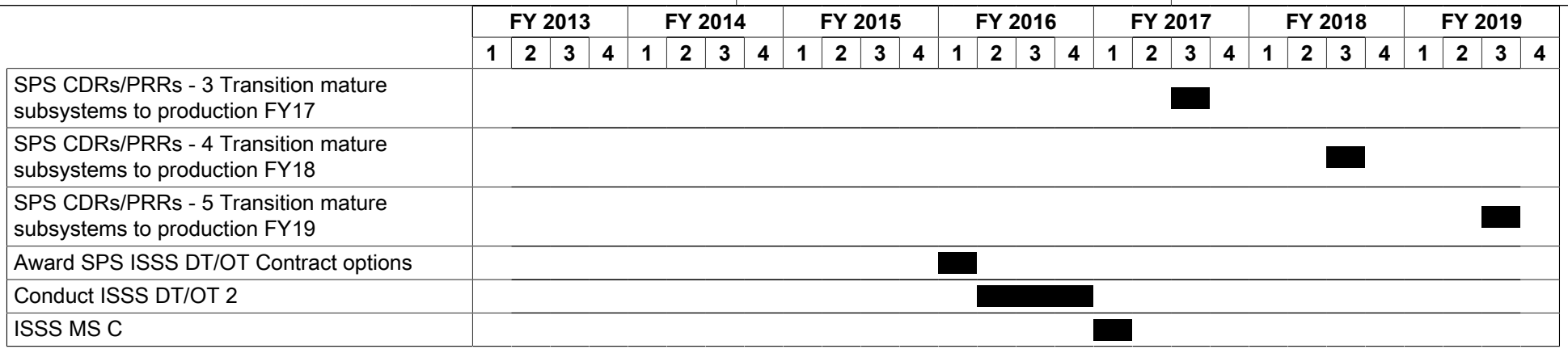

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604601A / *Infantry Support Weapons*	**Project (Number/Name)** VS5 / *Soldier Protective Equipment*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Complete development of Family of Concealable Body Army (FoCBA)	1	2013	1	2013
FoCBA Milestone C Decision	2	2013	2	2013
SPS Material Development Decision (MDD)	1	2013	1	2013
SPS Milestone B decision	3	2013	3	2013
Initiate/complete APEL/QPL requalification Program	3	2013	2	2014
SPS SC&MPD phase	3	2013	2	2015
Award SPS Protective Eyewear and Vital Torso Contracts	4	2013	4	2013
Award SPS Integrated Head Protection System Contract	1	2014	1	2014
Award SPS Torso & Extremity Protection Contract	2	2014	2	2014
SPS Critical Design Review (CDR)	3	2014	3	2014
Award SPS components/subsystem contract options for DT/OT Hardware	4	2014	4	2014
Conduct Phase II SPS System Level DT/OT 1	4	2014	2	2015
SPS Milestone C Decision	3	2015	3	2015
Initiate SPS Incr/SC&MPD Improvements thru FY19	4	2015	4	2019
SPS system testing (ballistic & non ballistic; FOT&E) thru FY19	2	2016	4	2019
SPS CDRs/PRRs - 1 Transition mature subsystems to production FY15	3	2015	3	2015
SPS CDRs/PRRs - 2 Transition mature subsystems to production FY16	3	2016	3	2016
SPS CDRs/PRRs - 3 Transition mature subsystems to production FY17	3	2017	3	2017
SPS CDRs/PRRs - 4 Transition mature subsystems to production FY18	3	2018	3	2018
SPS CDRs/PRRs - 5 Transition mature subsystems to production FY19	3	2019	3	2019
Award SPS ISSS DT/OT Contract options	1	2016	1	2016
Conduct ISSS DT/OT 2	2	2016	4	2016
ISSS MS C	1	2017	1	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604604A / *MEDIUM TACTICAL VEHICLES*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	2.908	2.139	0.210	-	0.210	0.282	-	-	-	Continuing	Continuing
H07: *Family Of Med Tac Veh*	-	2.908	2.139	0.210	-	0.210	0.282	-	-	-	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This Program Element (PE) supports continued modernization of the Army's medium truck and trailer fleet and the Armored Security Vehicle (ASV).

In the medium fleet, the Family of Medium Tactical Vehicles (FMTV) replaces aging M35 2 1/2-ton trucks, and M809 and M900 Series 5-ton trucks that are beyond their economic useful life of 15-20 years. FMTV fills 2 1/2-ton Light Medium Tactical Vehicle (LMTV) and 5-ton truck Medium Tactical Vehicle (MTV) requirements, and includes companion trailers, performing over 55 percent of the Army's local and line haul, and unit resupply missions, and operates throughout the theater as multi-purpose transportation vehicles in combat, combat support, and combat service support units.

The ASV is an all-wheel drive armored vehicle that provides ballistic protection, overhead protection, and protection against landmines. It is used by the Military Police to perform missions of area security, maneuver, and mobility support.

This PE funds government technical insertion initiatives that will feed into implementation of the Tactical Wheeled Vehicle (TWV) Modernization Strategy and the TWV Armoring Strategy as a bridge to future tactical vehicle efforts. This PE allows the PM to leverage technology and address capability gaps in performance and reliability as identified by the user community and reported in the field. FY15 funding will be used to continue Technology Insertion, Fuel Economy, and address field issues requiring RDT&E funds and will be used to increase protection and survivability of the FMTV through continued development and integration of armor enhancements and applications.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*		R-1 Program Element (Number/Name) PE 0604604A / *MEDIUM TACTICAL VEHICLES*			
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	3.006	2.140	0.428	-	0.428
Current President's Budget	2.908	2.139	0.210	-	0.210
Total Adjustments	-0.098	-0.001	-0.218	-	-0.218
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Balance	-0.098	-0.001	-0.004	-	-0.004
• Other Adjustments 2	-	-	-0.214	-	-0.214

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604604A / *MEDIUM TACTICAL VEHICLES*				Project (Number/Name) H07 / *Family Of Med Tac Veh*			
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
H07: *Family Of Med Tac Veh*	-	2.908	2.139	0.210	-	0.210	0.282	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

Not Applicable.

A. Mission Description and Budget Item Justification

This Program Element (PE) supports continued modernization of the Army's medium truck and trailer fleet and the Armored Security Vehicle (ASV).

In the medium fleet, the Family of Medium Tactical Vehicles (FMTV) replaces aging M35 2 1/2-ton trucks, and M809 and M900 Series 5-ton trucks that are beyond their economic useful life of 15-20 years. FMTV fills 2 1/2-ton Light Medium Tactical Vehicle (LMTV) and 5-ton truck Medium Tactical Vehicle (MTV) requirements, and includes companion trailers, performing over 55 percent of the Army's local and line haul, and unit resupply missions, and operates throughout the theater as multi-purpose transportation vehicles in combat, combat support, and combat service support units.

The ASV is an all-wheel drive armored vehicle that provides ballistic protection, overhead protection, and protection against landmines. It is used by the Military Police to perform missions of area security, maneuver, and mobility support.

This PE funds government technical insertion initiatives that will feed into implementation of the Tactical Wheeled Vehicle (TWV) Modernization Strategy and the TWV Armoring Strategy as a bridge to future tactical vehicle efforts. This PE allows the PM to leverage technology and address capability gaps in performance and reliability as identified by the user community and reported in the field. FY15-16 funding will be used to continue Technology Insertion, Fuel Economy, and address field issues requiring RDT&E funds and will be used to increase protection and survivability of the FMTV through continued development and integration of armor enhancements and applications.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Automotive Technological Evaluation, Testing & Insertion	1.018	0.749	0.082
Articles:	-	-	-
Description: Funding is provided for the following effort			
FY 2013 Accomplishments: Continuation with FMTV Automotive Technological Evaluation, Testing, & Insertion			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604604A / *MEDIUM TACTICAL VEHICLES*	**Project (Number/Name)** H07 / *Family Of Med Tac Veh*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continuation with FMTV Automotive Technological Evaluation, Testing & Insertion ***FY 2015 Plans:*** Continuation with FMTV Automotive Technological Evaluation, Testing, & Insertion			
Title: Armor Spiral Development	0.930	0.684	-
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Improvements to occupant survivability. ***FY 2014 Plans:*** Improvements to occupant survivability			
Title: Fuel Economy	0.960	0.706	-
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued Fuel Economy Improvements. ***FY 2014 Plans:*** Continued Fuel Economy Improvements			
Title: FMTV Force Protection Improvements	-	-	0.128
Description: Funding provided for the following effort: ***FY 2015 Plans:*** Improvements to occupant survivability.			
Accomplishments/Planned Programs Subtotals	2.908	2.139	0.210

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604604A / *MEDIUM TACTICAL VEHICLES*	**Project (Number/Name)** H07 / *Family Of Med Tac Veh*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OPA 1 D15500: *Family of Medium Tactical Vehicles D15500*	343.813	223.910	-	-	-	-	248.944	249.122	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

FMTV - Technological Insertion, Armor Spiral Development, Fuel Economy, and FMTV Force Protection Improvements efforts will be accomplished by a Cost Plus Fixed Fee (Level of Effort) basis.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604604A / *MEDIUM TACTICAL VEHICLES*	Project (Number/Name) H07 / *Family Of Med Tac Veh*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FMTV Automotive Technological Evaluation and Insertion	C/CPFF	Oshkosh Truck Corporation : Oshkosh, WI	9.452	1.018	Mar 2013	0.749	Mar 2014	-		-		-	Continuing	Continuing	Continuing
FMTV Armor Spiral Development	C/CPFF	Oshkosh Truck Corporation : Oshkosh, WI	3.921	0.930	Mar 2013	0.684	Mar 2014	-		-		-	Continuing	Continuing	Continuing
FMTV Fuel Economy	C/CPFF	Oshkosh Truck Corporation : Oshkosh, WI	0.956	0.960	Mar 2013	0.706	Mar 2014	-		-		-	Continuing	Continuing	Continuing
FMTV Automotive Technological Evaluation and Insertion	C/CPFF	TBD : TBD	0.082	-		-		0.082	Jan 2015	-		0.082	Continuing	Continuing	Continuing
FMTV Force Protection Improvements	C/CPFF	TBD : TBD	0.128	-		-		0.128	Jan 2015	-		0.128	Continuing	Continuing	Continuing
ASV Mission Enhancement Package (MEP)	MIPR	Various Locations : Various Locations	1.844	-		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	16.383	2.908		2.139		0.210		-		0.210	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FMTV Automotive Technological Evaluation and Insertion	Various	Various : Various	0.351	-		-		-		-		-	Continuing	Continuing	Continuing
FMTV Armor Spiral Development Testing	MIPR	TARDEC : Warren, MI	0.319	-		-		-		-		-	Continuing	Continuing	Continuing
FMTV Fuel Economy Testing	MIPR	TARDEC : Warren, MI	0.319	-		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.989	-		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604604A / *MEDIUM TACTICAL VEHICLES*	Project (Number/Name) H07 / *Family Of Med Tac Veh*	

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	17.372	2.908		2.139		0.210		-		0.210	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604604A / *MEDIUM TACTICAL VEHICLES*	**Project (Number/Name)** H07 / *Family Of Med Tac Veh*

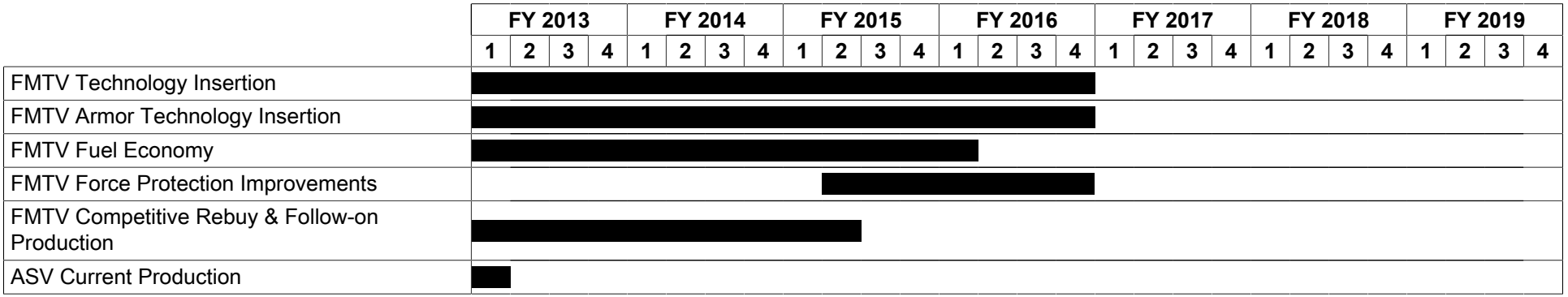

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604604A / *MEDIUM TACTICAL VEHICLES*	**Project (Number/Name)** H07 / *Family Of Med Tac Veh*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
FMTV Technology Insertion	1	2008	4	2016
FMTV Armor Technology Insertion	1	2010	4	2016
FMTV Fuel Economy	1	2010	1	2016
FMTV Force Protection Improvements	2	2015	4	2016
FMTV Competitive Rebuy & Follow-on Production	2	2010	2	2015
ASV Current Production	1	2010	1	2013

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604611A / *JAVELIN*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	4.540	5.000	4.166	-	4.166	4.909	19.704	20.709	17.772	-	76.800
499: *Javelin (AAWS-M)*	-	4.540	5.000	4.166	-	4.166	4.909	19.704	20.709	17.772	-	76.800

The FY 2015 OCO Request will be submitted at a later date.

Note

Adjustments to Budget Years: Army added funds in FY 15 to begin development of the Lightweight CLU to address user feedback on weight and bulk and to address the Close Combat Missiles System - Medium Capability Production Document objective system weight requirement.

A. Mission Description and Budget Item Justification

FY15 funding will fund developmental engineering of the Javelin Lightweight Command Launch Unit (CLU). Goal of the Javelin Lightweight CLU is a 50% reduction in size and weight, while meeting detect, recognize, and identify requirements. Javelin Lightweight CLU is a result of user feedback on weight and bulk, and addresses the Close Combat Missiles System - Medium Capability Production Document objective system weight requirement.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	5.040	5.002	-	-	-
Current President's Budget	4.540	5.000	4.166	-	4.166
Total Adjustments	-0.500	-0.002	4.166	-	4.166
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	4.166	-	4.166
• Other Adjustments 1	-0.500	-0.002	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604611A / *JAVELIN*	Project (Number/Name) 499 / *Javelin (AAWS-M)*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
499: *Javelin (AAWS-M)*	-	4.540	5.000	4.166	-	4.166	4.909	19.704	20.709	17.772	-	76.800
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

FY15 funding will fund developmental engineering of the Javelin Lightweight Command Launch Unit (CLU). Goal of the Javelin Lightweight CLU is a 50% reduction in size and weight, while meeting detect, recognize, and identify requirements. Javelin Lightweight CLU is a result of user feedback on weight and bulk, and addresses the Close Combat Missiles System - Medium Capability Production Document objective system weight requirement.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Javelin System Improvements	4.540	5.000	4.166
Articles:	-	-	-
Description: Improve the current Javelin missile with multi-purpose warhead (MPWH) (FY13-14). Develop Lightweight Command Launch Unit (FY15-19). ***FY 2013 Accomplishments:*** Javelin MPWH component qualification testing, final design review, and system level integration (non-flight) testing to prepare for system qualification. ***FY 2014 Plans:*** Javelin MPWH system qualification (flight), live fire testing for integration into Javelin Block I missile. CLU Far Target Locator demonstrations and user evaluations. ***FY 2015 Plans:*** Lightweight CLU system architecture design, research and design advanced lightweight composite materials for CLU housing, research and design small form factored / lightweight acquisition sensor and associated optics, and initiation of prototype software / firmware design.			
Accomplishments/Planned Programs Subtotals	4.540	5.000	4.166

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• SSN CC0007: *Javelin (AAWS-M) Procurement*	75.170	110.510	77.668	-	77.668	77.902	63.013	73.684	65.073	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604611A / *JAVELIN*	**Project (Number/Name)** 499 / *Javelin (AAWS-M)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost

Remarks

FY 15-19 procurement funds are to procure missiles only. No CLUs will be procured with these funds.

D. Acquisition Strategy

Javelin Lightweight CLU development will be conducted by the Javelin Joint Venture (Raytheon, Tucson, AZ, and Lockheed Martin, Orlando, FL). Engineering services contract with the Javelin Joint Venture will be utilized for Lightweight CLU development efforts. The major subassemblies, which are also the primary cost drivers, will be competed. The Javelin Joint Venture has invested Industry Research and Development in the Lightweight CLU. Development, prototype, and testing will occur FY15-19 with production beginning FY20. Current plan is to field to priority Infantry Brigade Combat Teams and Special Forces and cascade Block 0 CLUs out of the inventory.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604611A / *JAVELIN*	Project (Number/Name) 499 / *Javelin (AAWS-M)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering/ Program Management, Govt	Allot	Close Combat Weapon Systems Project Office : Redstone Arsenal, AL	0.000	0.360		0.450		0.379		-		0.379	5.736	6.925	-
		Subtotal	0.000	0.360		0.450		0.379		-		0.379	5.736	6.925	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Multi-purpose Warhead Development	SS/CPFF	JJV/Raytheon/ Lockheed Martin : Orlando, FL/Tucson, AZ	0.000	1.127	May 2013	1.273	Jan 2014	-		-		-	-	2.400	-
Trade Studies and Demonstrations	MIPR	AMRDEC : Redstone Arsenal, AL	0.000	0.225		0.325		-		-		-	-	0.550	-
Lightweight CLU Development	SS/CPFF	JJV/Raytheon/ Lockheed Martin : Orlando, FL/ Tucson,AZ	0.000	-		-		2.437	Jan 2015	-		2.437	47.628	50.065	-
Lightweight CLU Development	MIPR	AMRDEC : Redstone Arsenal, AL	0.000	-		-		1.350		-		1.350	1.059	2.409	-
		Subtotal	0.000	1.352		1.598		3.787		-		3.787	48.687	55.424	-

Remarks

JV - Joint Venture
SS CPFF - Sole Source Cost Plus Fixed Fee
CLU - Command Launch Unit
AMRDEC - Aviation & Missile Research, Development and Engineering Center
MIPR - Military Interdepartmental Purchase Request

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604611A / *JAVELIN*	Project (Number/Name) 499 / *Javelin (AAWS-M)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MPWH System Qualification Testing/ Live Fire, Govt	MIPR	Redstone Test Center : Redstone Arsenal, AL	0.000	2.828		2.952		-		-		-	-	5.780	-
Lightweight CLU Test and Evaluation	SS/CPFF	JJV/Raytheon/ Lockheed Martin : Orlando, FL/Tucson, AZ	0.000	-		-		-		-		-	1.654	1.654	-
Lightweight CLU Test and Evaluation	MIPR	Redstone Test Center : Redstone Arsenal, AL	0.000	-		-		-		-		-	7.018	7.018	-
		Subtotal	0.000	2.828		2.952		-		-		-	8.672	14.452	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	4.540		5.000		4.166		-		4.166	63.095	76.801	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604611A / *JAVELIN*	**Project (Number/Name)** 499 / *Javelin (AAWS-M)*

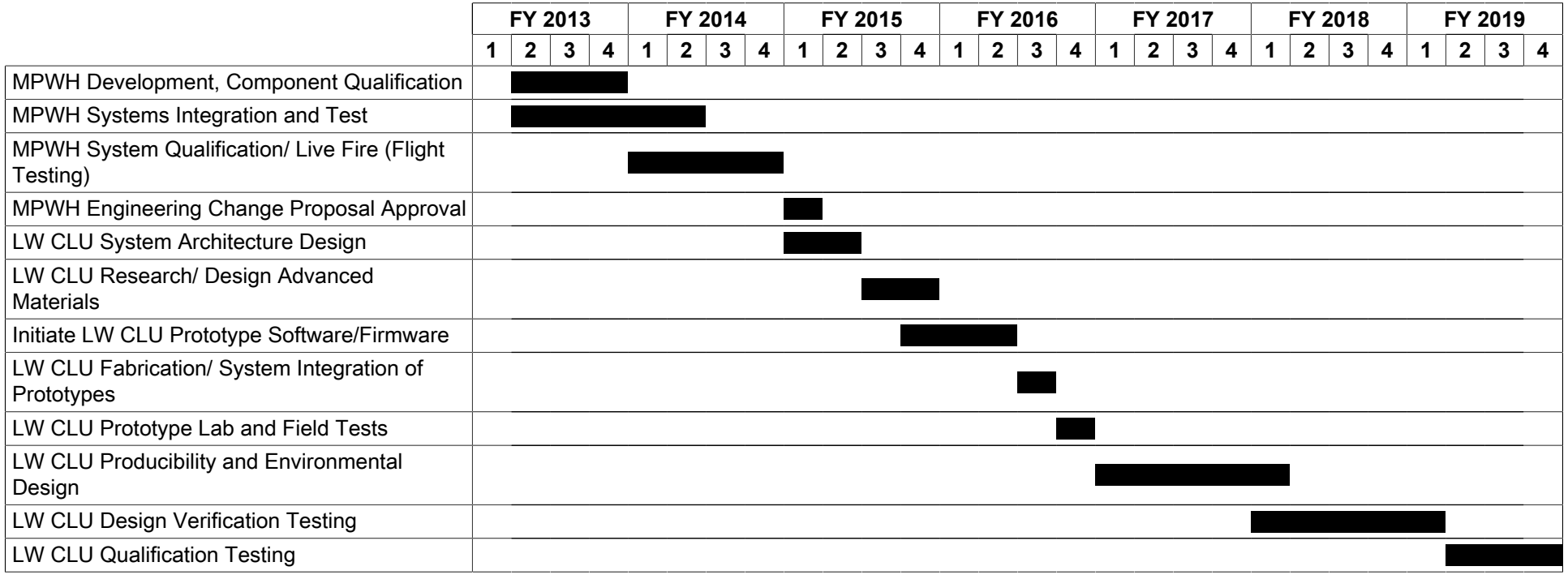

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604611A / *JAVELIN*	**Project (Number/Name)** 499 / *Javelin (AAWS-M)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
MPWH Development, Component Qualification	2	2013	4	2013
MPWH Systems Integration and Test	2	2013	2	2014
MPWH System Qualification/ Live Fire (Flight Testing)	1	2014	4	2014
MPWH Engineering Change Proposal Approval	1	2015	1	2015
LW CLU System Architecture Design	1	2015	2	2015
LW CLU Research/ Design Advanced Materials	3	2015	4	2015
Initiate LW CLU Prototype Software/Firmware	4	2015	2	2016
LW CLU Fabrication/ System Integration of Prototypes	3	2016	3	2016
LW CLU Prototype Lab and Field Tests	4	2016	4	2016
LW CLU Producibility and Environmental Design	1	2017	1	2018
LW CLU Design Verification Testing	1	2018	1	2019
LW CLU Qualification Testing	2	2019	4	2019

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604622A / *Family of Heavy Tactical Vehicles*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	17.975	28.310	12.913	-	12.913	7.624	6.935	6.907	6.774	-	87.438
659: *Family Of Hvy Tac Veh*	-	15.046	26.262	9.304	-	9.304	2.955	2.958	2.960	2.963	-	62.448
VR5: *TWV Protection Kits*	-	2.929	2.048	3.609	-	3.609	4.669	3.977	3.947	3.811	-	24.990

The FY 2015 OCO Request will be submitted at a later date.

Note

FY15 decrement for higher priorities.

A. Mission Description and Budget Item Justification

This program element aligns system development and demonstration of Heavy Tactical Vehicles with Future Modular Force requirements to support combat and combat support missions. These missions include the following: line haul, local haul, and unit resupply. These trucks transport water, ammunition, and general cargo over all terrain and throughout the battle-space. Funding will also be used for developing the Army's next generation of tactical trucks, as part of the Army's Tactical Wheeled Vehicle Modernization Strategy. Funding in Project 659 supports the Family of Heavy Trucks (FHTV) Heavy Dump Truck (HDT). Funding in Project VR5 supports periodic, evolutionary upgrade of survivability and crew protection for Heavy Tactical Vehicles as described in the Long Term Protection Strategy.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	3.077	21.321	14.511	-	14.511
Current President's Budget	17.975	28.310	12.913	-	12.913
Total Adjustments	14.898	6.989	-1.598	-	-1.598
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	14.898	6.989	-1.598	-	-1.598

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604622A / *Family of Heavy Tactical Vehicles*	Project (Number/Name) 659 / *Family Of Hvy Tac Veh*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
659: *Family Of Hvy Tac Veh*	-	15.046	26.262	9.304	-	9.304	2.955	2.958	2.960	2.963	-	62.448
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

Family of Heavy Tactical Vehicles (FHTV) Heavy Dump Truck (HDT)

Mine Resistant Ambush Protected (MRAP) Vehicle

A. Mission Description and Budget Item Justification

The Heavy Dump Truck (HDT) supports construction projects by loading, transporting and dumping payloads of sand and gravel aggregates, crushed rock, hot asphalt mixes, earth, clay, rubble, large boulders and other materials up to gross vehicle weight rating to job sites under worldwide climatic conditions. The HDT also serves as a quarry truck for the quick transport of bulk raw earth material to and from the crushing screening and washing plant and the asphalt mixing plant. The HDT also serves as a transportation asset for organizational equipment. The HDT is LTAS compliant with armored protection and includes a material control system coupled with the heated bed and Command, Control, Communications, Computers, and Intelligence (C4I) electrical architecture.

APO MRAP will execute R&D funding on survivability, mobility and storage technologies to improve current capabilities.

The HDT is required to replace the M917 and F5070 HDT.

FY15 funding will be used for test assets, PM support, and various testing for the HDT.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)		FY 2013	FY 2014	FY 2015
Title: Heavy Dump Truck (HDT)		-	5.410	-
	Articles:	-	-	-
Description: Truck Test Assets				
FY 2014 Plans: Test and Evaluation				
Title: Test and Evaluation (HDT)		-	3.545	6.564
	Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** 659 / *Family Of Hvy Tac Veh*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Test and Evaluation ***FY 2014 Plans:*** Test and Evaluation ***FY 2015 Plans:*** Test and Evaluation			
Title: Program Support (HDT)	0.046	0.950	0.150
Articles:	-	-	-
Description: Program support. ***FY 2013 Accomplishments:*** Funds will provide program support to the Heavy Tactical Vehicles family. ***FY 2014 Plans:*** Funds will provide program support to the Heavy Tactical Vehicles family. ***FY 2015 Plans:*** Funds will provide program support to the Heavy Tactical Vehicles family.			
Title: Prototype Design and Integration (HDT)	-	9.367	2.590
Articles:	-	-	-
Description: Prototype Design and Integration ***FY 2014 Plans:*** Prototype Design and Integration ***FY 2015 Plans:*** Prototype Design and Integration			
Title: Maxx Pro & MATV	15.000	6.990	-
Articles:	-	-	-
Description: Maxx Pro & MATV Test and Development ***FY 2013 Accomplishments:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** 659 / *Family Of Hvy Tac Veh*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Maxx Pro & MATV Test and Development			
FY 2014 Plans: Maxx Pro & MATV Test and Development			
Accomplishments/Planned Programs Subtotals	15.046	26.262	9.304

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Family of Heavy Tactical Vehicles: *Family of Heavy Tactical Vehicles (FHTV) DA0500*	52.863	14.731	28.425	-	28.425	33.449	45.562	7.237	0.007	Continuing	Continuing
• Truck, Dump: *Truck, Dump, 20T D16001*	-	-	-	-	-	22.926	26.970	29.982	22.958	Continuing	Continuing
• Mine Resistant Ambush Protected: *Mine Resistant Ambush Protected (MRAP) Mods (D03002)*	158.804	373.240	14.731	-	14.731	7.252	1.991	-	-	-	556.018

Remarks

D. Acquisition Strategy

Funds will provide test assets, design and integration of Military specific requirements; test and evaluation; and program management in support of FHTV - Heavy Dump Truck (HDT).

Funds will provide test and evaluation, armor and underbody development and technology improvements in support of MRAP Vehicles - Maxx Pro and M-ATV.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604622A / *Family of Heavy Tactical Vehicles*	Project (Number/Name) 659 / *Family Of Hvy Tac Veh*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
HDT Prototype Design and Integration	C/FFP	TBD : TBD	0.000	-		9.367	May 2015	2.590	May 2015	-		2.590	-	11.957	-
		Subtotal	0.000	-		9.367		2.590		-		2.590	-	11.957	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Heavy Dump Truck (HDT) Test Assets	C/FFP	TBD : TBD	0.000	-		5.410	May 2015	-		-		-	-	5.410	-
Maxx Pro & MATV Development	MIPR	Various : Various	0.000	-		5.000	Apr 2014	-		-		-	-	5.000	-
Maxx Pro & MATV Armor Development	MIPR	Various : TARDEC/ Various	0.000	8.597	Aug 2013	-		-		-		-	-	8.597	-
		Subtotal	0.000	8.597		10.410		-		-		-	-	19.007	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
HDT Program Support	MIPR	TACOM : Warren, MI	0.000	0.046	Dec 2012	0.950	Oct 2014	0.150	Dec 2014	-		0.150	Continuing	Continuing	Continuing
Maxx Pro & MATV Program Support Costs	MIPR	TARDEC : Warren, MI	0.000	2.721	Aug 2013	-		-		-		-	-	2.721	-
		Subtotal	0.000	2.767		0.950		0.150		-		0.150	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
HDT Test and Evaluation	MIPR	TBD : TBD	0.000	-		3.545	Jul 2015	6.564	Oct 2015	-		6.564	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604622A / *Family of Heavy Tactical Vehicles*	Project (Number/Name) 659 / *Family Of Hvy Tac Veh*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Maxx Pro & MATV Test	MIPR	Various : Various	0.000	3.682	Aug 2013	-		-		-		-	-	3.682	-
Maxx Pro & MATV Test	MIPR	Various : TARDEC/ Various	0.000	-		1.990	Apr 2014	-		-		-	-	1.990	-
		Subtotal	0.000	3.682		5.535		6.564		-		6.564	-	-	-

	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	15.046		26.262		9.304		-		9.304	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** 659 / *Family Of Hvy Tac Veh*

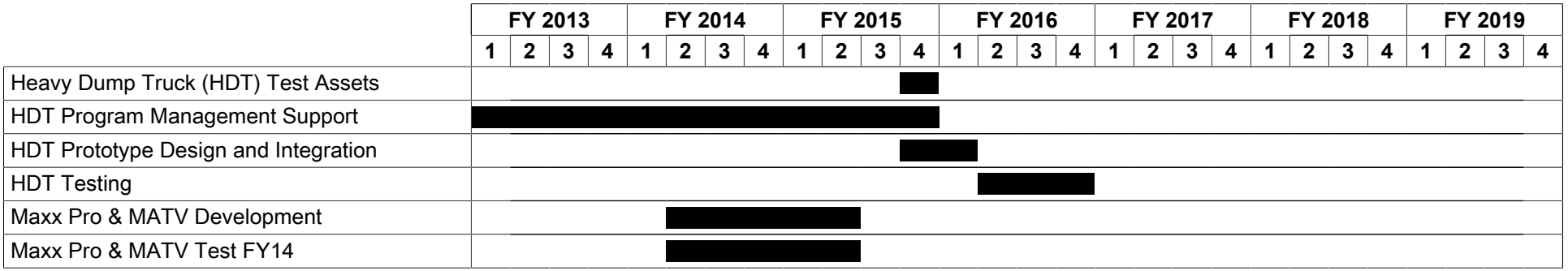

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** 659 / *Family Of Hvy Tac Veh*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Heavy Dump Truck (HDT) Test Assets	4	2015	4	2015
HDT Program Management Support	1	2013	4	2015
HDT Prototype Design and Integration	4	2015	1	2016
HDT Testing	2	2016	4	2016
Maxx Pro & MATV Development	2	2014	2	2015
Maxx Pro & MATV Test FY14	2	2014	2	2015

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604622A / *Family of Heavy Tactical Vehicles*	Project (Number/Name) VR5 / *TWV Protection Kits*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
VR5: *TWV Protection Kits*	-	2.929	2.048	3.609	-	3.609	4.669	3.977	3.947	3.811	-	24.990
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This program element supports periodic, evolutionary upgrade of survivability and crew protection for Heavy Tactical Vehicles (HTV) as described in the Tactical Wheeled Vehicle (TWV) Strategy and individual variants' Capability Production Documents. The upgrades will leverage the Army Technology Objective's (ATO) survivability and Army Research Laboratory's (ARL) research and development activities to develop and evaluate kits which increase the protection level of the HTV to the MRAP 1.1 level while anticipating changing threat environments, protection gaps, or improving the operating performance, efficiency, and reliability through armor weight reduction.

FY15 funding will be used to develop and test an armored solution for the newly produced Heavy Equipment Transporter (HET).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Design and Build Armor Kits.	-	1.878	2.939
Articles:	-	-	-
Description: Design and build prototype kits for the Heavy Tactical Vehicle systems.			
FY 2014 Plans: Design and build prototype kits that represent production alternatives in terms of form, fit, and function sufficient to validate the required protection levels and kit interface to the vehicle platform.			
FY 2015 Plans: Design and build prototype kits in terms of form, fit, and function sufficient to validate the required protection levels and kit interface to the vehicle platform.			
Title: Test and Evaluation.	2.752	-	0.500
Articles:	-	-	-
Description: Funding is provided for the following effort.			
FY 2013 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** VR5 / *TWV Protection Kits*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continuation of test and evaluation of Tactical Wheel Vehicle protection kits. It consists of ballistic evaluations, automotive performance, and durability mileage sufficient to assess kit performance against established vehicle and ballistic requirements. Testing will determine capabilities and limitations of the protection kit integration onto the vehicle platform. ***FY 2015 Plans:*** Validation of HUSK design in preparation of Full Materiel Release.			
Title: Program Management ***Articles:*** ***Description:*** Subject matter engineering matrix support for ballistics advisement. ***FY 2013 Accomplishments:*** Program Management support ***FY 2014 Plans:*** Program Management support ***FY 2015 Plans:*** Program Management support	0.177 -	0.170 -	0.170 -
Accomplishments/Planned Programs Subtotals	2.929	2.048	3.609

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• 005: *Family of Heavy Tactical Vehicles (FHTV) (DA0500)*	52.863	14.731	28.425	-	28.425	33.449	45.562	7.237	0.007	-	182.274
• 003: *Family of Medium Tactical Vehicles (FMTV) (D15500)*	343.813	223.910	-	-	-	-	248.944	249.122	-	-	1,065.789
• 000: *Tactical Wheeled Protection Kits - D04003*	69.072	17.000	38.226	-	38.226	45.700	45.805	45.838	45.841	-	307.482

Remarks

D. Acquisition Strategy

All funds are dedicated to creating an armor solution to develop MRAP 1.1-level armor for the HET A1.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** VR5 / *TWV Protection Kits*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604622A / *Family of Heavy Tactical Vehicles*	Project (Number/Name) VR5 / *TWV Protection Kits*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SBIR/STTR	C/TBD	WARREN, MI : TBD	0.058	-		-		-		-		-	-	0.058	-
		Subtotal	0.058	-		-		-		-		-	-	0.058	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Analysis of Alternatives/ Design and Build Armor Kits	SS/CPFF	OshKosh Truck Corporation : OshKosh, WI	0.173	-		-		-		-		-	Continuing	Continuing	Continuing
Design and Build	MIPR	TBD : TBD	0.973	-		1.878	Mar 2014	2.939	Oct 2014	-		2.939	-	5.790	-
Vulnerability Modeling and Simulation	MIPR	Army Research Lab : Adelphi, MD	0.120	-		-		-		-		-	Continuing	Continuing	Continuing
Survivability Modeling & Simulation	MIPR	TARDEC : Warren, MI	0.250	-		-		-		-		-	-	0.250	-
		Subtotal	1.516	-		1.878		2.939		-		2.939	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support	MIPR	TARDEC : Warren, MI	0.280	0.177		0.170	Jul 2014	0.170	Jul 2015	-		0.170	-	0.797	-
		Subtotal	0.280	0.177		0.170		0.170		-		0.170	-	0.797	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	MIPR	Various Locations : Various Locations	0.000	2.752		-		0.500	Jun 2015	-		0.500	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604622A / *Family of Heavy Tactical Vehicles*	Project (Number/Name) VR5 / *TWV Protection Kits*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	0.000	2.752		-		0.500		-		0.500	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.854	2.929		2.048		3.609		-		3.609	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** VR5 / *TWV Protection Kits*

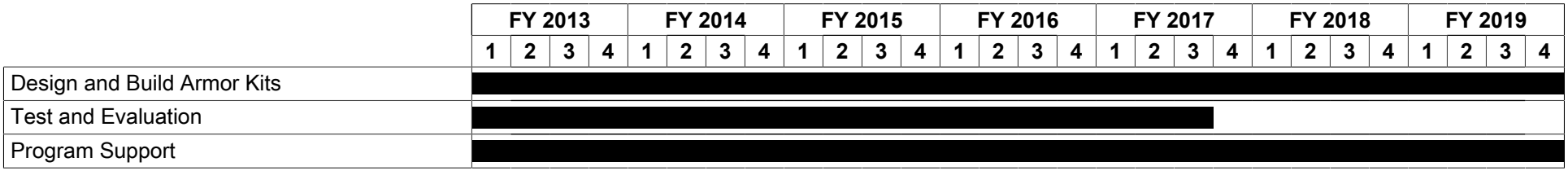

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** VR5 / *TWV Protection Kits*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Design and Build Armor Kits	2	2012	4	2020
Test and Evaluation	1	2013	3	2017
Program Support	2	2012	4	2020

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604633A / *AIR TRAFFIC CONTROL*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	10.140	0.514	16.764	-	16.764	5.968	2.207	7.241	13.134	Continuing	Continuing
586: *Air Traffic Control*	-	10.140	0.514	16.764	-	16.764	5.968	2.207	7.241	13.134	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

FY 2015: POMBES 2015-2019 increased the FY 2015 budget to $16,764K.

A. Mission Description and Budget Item Justification

This program element funds continuous efforts in the development of modernized tactical and fixed base Air Traffic Control (ATC) systems that will enable safety of aircraft operations. ATC systems are required to achieve or maintain compliance with civil, military, domestic and international air traffic control mandates and combat identification requirements. Funding will be utilized to develop, evaluate and integrate technologies required to support ATC requirements. Efforts funded include the Tactical Airspace Integration System (TAIS) Web Based Architecture and Airspace Improvements Initiative, Air Traffic Navigation Integration and Coordination System (ATNAVICS) Modernization, Advanced Surveillance, the development of an ATC Tactical Network, and Tactical Terminal Control System (TTCS) modernization.

TAIS, the Airspace Management System of the Army Mission Command System, requires the development and testing of web-based services for Airspace Control, and integration of these new web-based services into the TAIS common Army Mission Command hardware, Air Traffic Services (ATS) and Airspace Integration Improvement Initiatives. Additional capabilities will be provided through advanced surveillance interfaces, mission planning interfaces, and TAIS dynamic airspace updates to the cockpit. TAIS efforts also include developing and testing improvements to the air picture including the addition of Blue Force Tracker correlation and radar fusion capability. TAIS develops software and required hardware for airspace management web services, to operate effectively in a dynamic net-centric interconnected environment. TAIS also integrates advanced surveillance interfaces to further enhance airspace integration and dynamic management capabilities. ATNAVICS provides all weather instrument flight capabilities to include, terminal, radar precision approach and landing services to all Army, Joint, and Allied aircraft. ATNAVICS will integrate Mode S capabilities required to control aircraft both OCONUS and CONUS. ATNAVICS will network its radar picture and advanced surveillance data (Mode 5 and Mode S) to aviation and joint network nodes through TAIS. As the Department of Defense transitions military aircraft to positional self-reporting technologies, these various technologies will be incorporated in the Advanced Surveillance program. Advanced Surveillance allows ATC reception of aircraft self-reporting data which include Automatic Dependent Surveillance Broadcast (ADS-B), Mode 5 and Mode S. Advanced Surveillance integrates local radar feeds and self-reporting aircraft positional data into a correlated air situational awareness picture. ATC Tactical Networking supports the non recurring engineering, test and evaluation tasks necessary for the integration of the radios, control stations and transmitter/receivers and software that will provide all ATC tactical systems an airfield network node capability. This will enable each ATC system to send voice and data between ATC platforms including connectivity to an external network for long range flight-following and data exchange. ATC Networking is required to meet the Net Ready Key Performance Parameter for ATC tactical systems. The TTCS provides initial Air Traffic Services at remote landing sites and drop zones. TTCS includes secure communications equipment for aircraft separation and ground control, meteorological measuring system for basic weather information, and precision location capability. The design, development and testing of the platform specific architecture for the integration of the ATC Wireless Network Backbone into the TTCS are required to support implementation of the ATC Tactical Network.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604633A / *AIR TRAFFIC CONTROL*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	9.769	0.514	12.164	-	12.164
Current President's Budget	10.140	0.514	16.764	-	16.764
Total Adjustments	0.371	-	4.600	-	4.600
• Congressional General Reductions	-0.015	-			
• Congressional Directed Reductions	-0.470	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.100	-			
• SBIR/STTR Transfer	-0.244	-			
• Adjustments to Budget Years	-	-	4.600	-	4.600

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604633A / *AIR TRAFFIC CONTROL*	Project (Number/Name) 586 / *Air Traffic Control*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
586: *Air Traffic Control*	-	10.140	0.514	16.764	-	16.764	5.968	2.207	7.241	13.134	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project funds continuous efforts in the development of modernized tactical and fixed base Air Traffic Control (ATC) systems that will enable safety of aircraft operations. ATC systems are required to achieve or maintain compliance with civil, military, domestic and international air traffic control mandates and combat identification requirements. Funding will be utilized to develop, evaluate and integrate technologies required to support ATC requirements. Efforts funded include the Tactical Airspace Integration System (TAIS) Web Based Architecture and Airspace Improvements Initiative, Air Traffic Navigation Integration and Coordination System (ATNAVICS) Modernization, Advanced Surveillance, the development of an ATC Tactical Network, and Tactical Terminal Control System (TTCS) modernization.

TAIS, the Airspace Management System of the Army Mission Command System, requires the development and testing of web-based services for Airspace Control, and integration of these new web-based services into the TAIS common Army Mission Command hardware, Air Traffic Services (ATS) and Airspace Integration Improvement Initiatives. Additional capabilities will be provided through advanced surveillance interfaces, mission planning interfaces, and TAIS dynamic airspace updates to the cockpit. TAIS efforts also include developing and testing improvements to the air picture including the addition of Blue Force Tracker correlation and radar fusion capability. TAIS develops software and required hardware for airspace management web services, to operate effectively in a dynamic net-centric interconnected environment. TAIS also integrates advanced surveillance interfaces to further enhance airspace integration and dynamic management capabilities. ATNAVICS provides all weather instrument flight capabilities to include enroute, terminal, radar precision approach and landing services to all Army, Joint, and Allied aircraft. ATNAVICS will integrate Mode S capabilities required to control aircraft both OCONUS and CONUS. ATNAVICS will network its radar picture and advanced surveillance data (Mode 5 and Mode S) to aviation and joint network nodes through TAIS. As the Department of Defense transitions military aircraft to positional self-reporting technologies, these various technologies will be incorporated in the Advanced Surveillance program. Advanced Surveillance allows ATC reception of aircraft self-reporting data which include Automatic Dependent Surveillance Broadcast (ADS-B), Mode 5 and Mode S. Advanced Surveillance integrates local radar feeds and self-reporting aircraft positional data into a correlated air situational awareness picture. ATC Tactical Networking supports the non recurring engineering, test and evaluation tasks necessary for the integration of the radios, control stations and transmitter/receivers and software that will provide all ATC tactical systems an airfield network node capability. This will enable each ATC system to send voice and data between ATC platforms including connectivity to an external network for long range flight-following and data exchange. ATC Networking is required to meet the Net Ready Key Performance Parameter (KPP) for ATC tactical systems. The TTCS provides initial Air Traffic Services at remote landing sites and drop zones. TTCS includes secure communications equipment for aircraft separation and ground control, meteorological measuring system for basic weather information, and precision location capability. The design, development and testing of the platform specific architecture for the integration of the ATC Wireless Network Backbone into the TTCS are required to support implementation of the ATC Tactical Network.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Tactical Airspace Integration System (TAIS)	6.757	-	9.530
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604633A / *AIR TRAFFIC CONTROL*	**Project (Number/Name)** 586 / *Air Traffic Control*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: TAIS Airspace Information Center (AIC) and Airspace Integration Improvements Initiative enhancements will be addressed through upgrades to the communications suite through new components such as 117G radios, BFT2/KGV-72, and ADS-B. TAIS develops software and required hardware for airspace management web services to operate effectively in a dynamic net-centric interconnected environment. TAIS also integrates advanced surveillance interfaces to further enhance a dynamic airspace management capability. ***FY 2013 Accomplishments:*** Began to design and develop TAIS service oriented architecture and web services in support of airspace control and AIC missions. Developed base foundation to build on, providing services to generate, display, and disseminate flight advisories. Laid the framework to display and disseminate High and Low Altitude Instrument Flight Rules (IFR) route structures, helicopter route structures, navigation information, communications information, refueling information, and terminal area information, for efficient future development and scalability. Developed initial web service data schema and infrastructure to dynamically support interoperability with Fires, Air Defense, and Joint Services (Air Force), to support rapid airspace de-confliction, coordination, and airspace clearance. Implemented Airspace Operations Community of Interest service schema for initial dynamic interoperability with the Theater Battle Management Core System. Developed first phase of the Expanded Airtrack Sensor Interface to provide interoperability with other ATC sensors in a fused data display. ***FY 2015 Plans:*** Develop sensor and data interfaces to Civil Aviation agencies in support of military and homeland defense Air Traffic Services and Airspace Management Command and Control. Develop web services and service oriented architecture with Joint systems to facilitate Air Traffic services and Airspace Command and Control across DoD agencies, Federal Agencies and with Allied Nations. Develop dynamic mission updates and interfaces with Unmanned Aerial Systems and DoD / Joint Air platforms for situational awareness. Develop and refine interfaces to cooperative, and non cooperative sensors and self reporting aircraft in support of Situational Awareness and airspace management and de-confliction. Develop rapidly deployable web based capabilities to enable disconnected off grid operations via non-line-of-sight communications and disjoined edge user nodes in support of ATC and ATS. Develop personnel recovery data dissemination to facilitate medical evacuation and search-and-rescue operations. Develop 3D view of airspace execution and usage to prevent fratricide and mid-air collisions between military and civil air craft. Develop capability to display and disseminate flight rules (IFR) and route structures, navigation information, and terminal area information. Implement new interfaces to support the rapid visualization, de-confliction of airspace, increasing situational awareness and facilitating rapid clearance of airspace.			
Title: Air Traffic Navigation Integration and Coordination System (ATNAVICS) Modernization	0.187	-	2.301
Articles:	-	-	-
Description: ATNAVICS is a highly mobile tactical area surveillance and precision approach air traffic control radar system. It provides the Joint Force Commander, or Combatant Commander, with a mobile, self-contained, and reliable Airport Surveillance			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604633A / *AIR TRAFFIC CONTROL*	**Project (Number/Name)** 586 / *Air Traffic Control*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Radar, Precision Approach Radar, and a Secondary Surveillance Radar capability. Product modernizations include radar interrogator modernization. ***FY 2013 Accomplishments:*** Continued the engineering of the Mode S, Federal Aviation Administration (FAA), Army Spectrum Management Office (ASMO), and AIMS System certification. ***FY 2015 Plans:*** Complete the development of the TPX-57 with Mode S as the secondary surveillance interrogator onto the radar. Support development of the hardware and software which processes both Mode S and ADS-B messages as transmitted via the extended squitter function or upon interrogation, as well as the physical integration of the component into the ATNAVICS. Conduct system testing and qualification, as well as certification and FAA/ASMO approvals, and Air Traffic Control Radar Beacon System Identification Friend or Foe, Mark XII/Mark XIIa Systems (AIMS) certification.			
Title: Advanced Surveillance	1.899	-	2.015
Articles:	-	-	-
Description: Advanced Surveillance technologies integration supports the non-recurring engineering, integration and test tasks required to incorporate the passive reception of self-reporting technologies and the correlation of local radar feeds into Air Traffic Control systems. Self-reporting technologies include ADS-B, Mode 5 Level 2, Mode S and similar civil aircraft self-reporting technologies. Local radar feeds include any radars in close proximity to ATC systems. ***FY 2013 Accomplishments:*** Continued evaluation and down-select of commercially available Advanced Surveillance receivers, and integration of receivers into PM Air Traffic Control programs of record, to allow reception of aircraft self-reported positional data. The Passive receiver will process all of the self reported air tracks broadcasted in a line of sight field of view. Continued development of fusion software to correlate tracks received via self reported means and radar tracks received from available radar sensors. The fusion software processes both the self-reported and the radar tracks to produce an appropriated local airfield situational awareness picture for display. Participated in Bold Quest 13 and Network Integration Experimentation (NIE) exercises to evaluate advance surveillance technologies. ***FY 2015 Plans:*** Continue testing and integration of the selected Advanced Surveillance passive receiver into non-equipped tactical ATC equipment, including the Mobile Tower System, TAIS and TTCS. Testing and evaluation will include participation in NIE and Bold Quest exercises and operational/developmental testing to include potentially destructive testing. Advanced Surveillance will enable tactical Army ATC equipment to comply with FAA mandated capabilities.			
Title: ATC Tactical Network	-	-	1.231

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604633A / *AIR TRAFFIC CONTROL*	**Project (Number/Name)** 586 / *Air Traffic Control*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: ATC Tactical Networking supports the non recurring engineering, test and evaluation tasks necessary for the integration of the radios, control stations and transmitter/receivers and software that will provide all ATC tactical systems an airfield network node capability. This will enable each ATC system to send voice and data between ATC platforms including connectivity to an external network for long range flight-following and data exchange. ATC Networking is required to meet the Net Ready KPP for ATC tactical systems. ***FY 2015 Plans:*** Conduct non recurring engineering, test and evaluation tasks necessary for the integration of the radios, control stations and transmitter/receivers and software that will provide all ATC tactical systems an airfield network node capability which enables each ATC system to send voice and data between ATC platforms including connectivity to an external network for long range flight-following and data exchange.			
Title: Tactical Terminal Control System (TTCS) ***Description:*** TTCS provides initial Air Traffic Services at remote landing sites and drop zones. TTCS includes secure communications equipment for aircraft separation and ground control, meteorological measuring system for basic weather information, and precision location capability. The design, development and testing of the platform specific architecture for the integration of the ATC Wireless Network Backbone into the TTCS are required to support implementation of the ATC Tactical Network. ***FY 2015 Plans:*** Design, develop and test the platform specific architecture for the integration of the ATC Wireless Network Backbone into the Tactical Terminal Control System (TTCS). The integration will allow the TTCS to be wirelessly networked with other ATC systems for voice and data communications.	-	-	0.987
Title: Program Management Support	0.107	0.120	0.221
Articles:	-	-	-
Description: Program Management Support of PM ATC. ***FY 2013 Accomplishments:*** Continue program management in support of PM ATC. ***FY 2014 Plans:*** Continue program management in support of PM ATC. ***FY 2015 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604633A / *AIR TRAFFIC CONTROL*	**Project (Number/Name)** 586 / *Air Traffic Control*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continue program management in support of PM ATC.			
Title: Tech and Log Support	1.190	0.394	0.479
Articles:	-	-	-
Description: Technical and logistics services in support of PM ATC. ***FY 2013 Accomplishments:*** Continued technical and logistics services in support of PM ATC. ***FY 2014 Plans:*** Continue technical and logistics services in support of PM ATC. ***FY 2015 Plans:*** Continue technical and logistics services in support of PM ATC.			
Accomplishments/Planned Programs Subtotals	10.140	0.514	16.764

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Air Traffic Control (AA0050): *Air Traffic Control*	46.081	79.692	127.232	-	127.232	88.441	86.734	113.560	100.706	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project is comprised of multiple systems supporting ATC development and test efforts. While the detailed acquisition strategy varies by program, the general strategy for each program is to complete development and testing efforts through contract modifications, engineering service tasks, and new/follow-on contracts. ATC systems are required to achieve or maintain compliance with civil, military, domestic and international air traffic control and upcoming Next Gen requirements and mandates, as well as current aircraft self-reporting transponders.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604633A / *AIR TRAFFIC CONTROL*	Project (Number/Name) 586 / *Air Traffic Control*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	PM ATC : Redstone Arsenal, AL	0.226	0.107	Dec 2012	0.120	Dec 2013	0.221	Oct 2014	-		0.221	Continuing	Continuing	Continuing
		Subtotal	0.226	0.107		0.120		0.221		-		0.221	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TAIS (Web Based Services Dev)	SS/T&M	General Dynamics C4S : Huntsville, AL	8.099	6.757	Dec 2012	-		9.530	Dec 2014	-		9.530	Continuing	Continuing	Continuing
ATNAVICS Modernization	SS/CPFF	Raytheon : Marlboro, Mass	12.000	0.187	Oct 2012	-		2.301	Dec 2014	-		2.301	-	14.488	-
Advanced Surveillance	Various	Various : Various	1.427	1.899	Feb 2013	-		2.015	Jan 2015	-		2.015	Continuing	Continuing	Continuing
Tactical Terminal Control System (TTCS)	Various	Various : Various	0.791	-		-		0.987	Mar 2015	-		0.987	-	1.778	-
Tech and Log Development Support	Various	PM ATC : Huntsville, AL	1.675	1.190	Dec 2012	0.394	Dec 2013	0.479	Oct 2014	-		0.479	Continuing	Continuing	Continuing
ATC Tactical Network	Various	PM ATC : Huntsville, AL	0.000	-		-		1.231	Jan 2015	-		1.231	Continuing	Continuing	Continuing
		Subtotal	23.992	10.033		0.394		16.543		-		16.543	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	24.218	10.140		0.514		16.764		-		16.764	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604633A / *AIR TRAFFIC CONTROL*	**Project (Number/Name)** 586 / *Air Traffic Control*

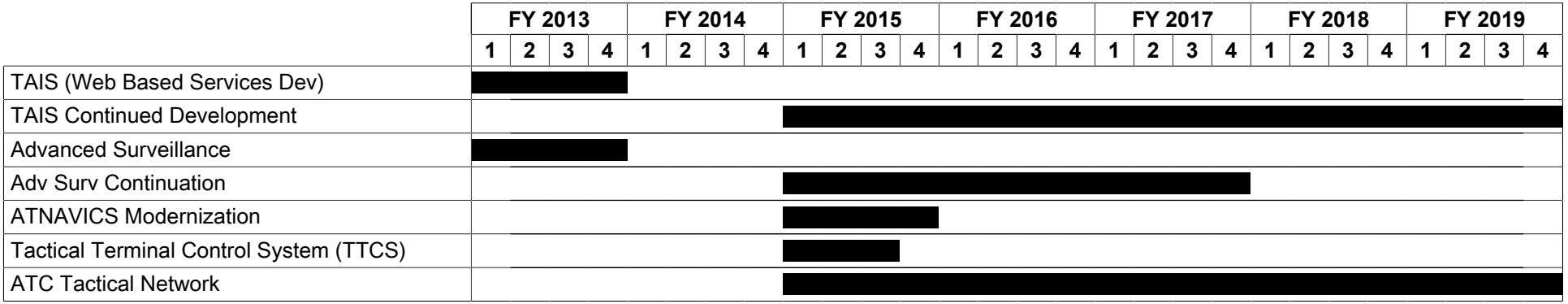

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604633A / *AIR TRAFFIC CONTROL*	**Project (Number/Name)** 586 / *Air Traffic Control*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
TAIS (Web Based Services Dev)	1	2011	4	2013
TAIS Continued Development	1	2015	4	2020
Advanced Surveillance	2	2011	4	2013
Adv Surv Continuation	1	2015	4	2017
ATNAVICS Modernization	1	2015	4	2015
Tactical Terminal Control System (TTCS)	1	2015	3	2015
ATC Tactical Network	1	2015	4	2019

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604641A / *TACTICAL UNMANNED GROUND VEHICLE*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	-	-	6.770	-	6.770	20.290	77.279	92.402	123.352	Continuing	Continuing
DV7: *Small Unmanned Ground Vehicle*	-	-	-	6.770	-	6.770	20.290	77.279	92.402	123.352	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The CRS(I) program is the result of the MOA between Director, Army Capabilities Integration Center (DIR ARCIC), United States Army Training and Doctrine Command (TRADOC) and Deputy Commandant for Combat Development and Integration (DC CD&I), Headquarters Marine Corps (HQMC) dated 19 Sep 2012. Thus the CRS(I) program has been jointly developed by the Army and USMC incorporating Army capability requirements, USMC Engineering Squad Robot (ESR) and USMC Tactical Robotic Controller (TRC) capabilities into one program.

As the lead service and in accordance with the Joint MOA Sec. 8.a., the Army will "have responsibility and authority for overall programming, budgeting, obligation, and expenditure of Research, Development, Test, and Evaluation (RDT&E) funding appropriated for program development."

The CRS(I) capability contributes to the essential Joint Operational Concepts (JOC) of: Major Combat Operations (MCO); Military Support to Stabilization, Security, Transition, and Reconstruction (SSTR); Homeland Support and Civil Defense and Joint Functional Concepts (JFC) of: Force Application and Protection. The CRS(I) contributes directly to Situational Awareness, Detect, Protect and Neutralize by providing a standoff hazards interrogation, detection, confirmation and neutralization capability employed to support a wide spectrum of mobility missions for current and future forces by providing required standoff capability across the Warfighting Functions. This capability allows commanders to make more informed decisions and plans, to use their forces more effectively and efficiently to produce desired outcomes, and to conduct focused operations for high-risk missions or selected missions that best satisfy the requirement without the limitations and vulnerabilities of manned systems. The CRS(I) capability provides commanders the ability to persistently monitor the operational environment (OE) while protecting and sustaining the force at standoff distances from the threat. The CRS (I) complements the Joint Integrated Warfighting Force by providing standoff to the Warfighter during Major Combat Operations, stability operations, and homeland security. The CRS(I) provides Warfighters the capability to find and identify targets of interest in the operational environment.

In support of the Joint Ground Robotic Integration Team (JGRIT) and emerging requirements, the Robot Enhancement Program (REP), modeled after the Soldier Enhancement Program (SEP), uses a "buy, try and decide" methodology to evaluate Commercial Off The Shelf (COTS), Government Off The Shelf (GOTS) and Non-Developmental Items (NDI) products that have the potential to enhance Soldier combat effectiveness. Hardware quantities will be limited to one Brigade Combat Team at the envisioned Basis of Issue as well as available SEP/REP funds. Evaluation results obtained will be used to inform emerging requirements documents and Cost-Benefit Analyses to support future Army decision making with actual operational user feedback.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604641A / *TACTICAL UNMANNED GROUND VEHICLE*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	13.141	-	-	-	-
Current President's Budget	-	-	6.770	-	6.770
Total Adjustments	-13.141	-	6.770	-	6.770
• Congressional General Reductions	-13.141	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	6.770	-	6.770

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604641A / *TACTICAL UNMANNED GROUND VEHICLE*	Project (Number/Name) DV7 / *Small Unmanned Ground Vehicle*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DV7: *Small Unmanned Ground Vehicle*	-	-	-	6.770	-	6.770	20.290	77.279	92.402	123.352	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

In FY15 Program Element 0604641A Project DV7 will capture requirements for Common Robotic System (Individual) (CRS(I)) and a number of other emerging robotic systems development and test requirements. This program is a new start in FY15.

This line was established for the Small Unmanned Ground Vehicle (SUGV) program which was terminated effective April 23, 2013.

A. Mission Description and Budget Item Justification

The CRS(I) program is the result of the Memorandum of Agreement (MOA) between Director, Army Capabilities Integration Center (DIR ARCIC), United States Army Training and Doctrine Command (TRADOC) and Deputy Commandant for Combat Development and Integration (DC CD&I), Headquarters Marine Corps (HQMC) dated 19 Sep 2012. Thus the CRS(I) program has been jointly developed by the Army and USMC incorporating Army capability requirements, USMC Engineering Squad Robot (ESR) and USMC Tactical Robotic Controller (TRC) capabilities into one program.

As the lead service and in accordance with the Joint MOA Sec. 8.a., the Army will "have responsibility and authority for overall programming, budgeting, obligation, and expenditure of Research, Development, Test, and Evaluation (RDT&E) funding appropriated for program development."

The CRS(I) capability contributes to the essential Joint Operational Concepts (JOC) of: Major Combat Operations (MCO); Military Support to Stabilization, Security, Transition, and Reconstruction (SSTR); Homeland Support and Civil Defense and Joint Functional Concepts (JFC) of: Force Application and Protection. The CRS(I) contributes directly to Situational Awareness, Detect, Protect and Neutralize by providing a standoff hazards interrogation, detection, confirmation and neutralization capability employed to support a wide spectrum of mobility missions for current and future forces by providing required standoff capability across the Warfighting Functions. This capability allows commanders to make more informed decisions and plans, to use their forces more effectively and efficiently to produce desired outcomes, and to conduct focused operations for high-risk missions or selected missions that best satisfy the requirement without the limitations and vulnerabilities of manned systems. The CRS(I) capability provides commanders the ability to persistently monitor the operational environment (OE) while protecting and sustaining the force at standoff distances from the threat. The CRS (I) complements the Joint Integrated Warfighting Force by providing standoff to the Warfighter during Major Combat Operations, stability operations, and homeland security. The CRS(I) provides Warfighters the capability to find and identify targets of interest in the operational environment.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604641A / *TACTICAL UNMANNED GROUND VEHICLE*	**Project (Number/Name)** DV7 / *Small Unmanned Ground Vehicle*

In support of the Joint Ground Robotic Integration Team (JGRIT) and emerging requirements, the Robot Enhancement Program (REP), modeled after the Soldier Enhancement Program (SEP), uses a "buy, try and decide" methodology to evaluate Commercial Off The Shelf (COTS), Government Off The Shelf (GOTS) and Non-Developmental Items (NDI) products that have the potential to enhance Soldier combat effectiveness. Hardware quantities will be limited to one Brigade Combat Team at the envisioned Basis of Issue as well as available SEP/REP funds. Evaluation results obtained will be used to inform emerging requirements documents and Cost-Benefit Analyses to support future Army decision making with actual operational user feedback.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Title: CRS(I) and emerging robotic requirements.	-	-	6.770
Description: During FY15, the CRS(I) program expects a Material Development Decision (MDD), will initiate an AoA, begin the program Test & Evaluation Working-Level Integrated Product Team (T&E WIPT), form a CRS(I) program IPT to support the AoA and acquisition process, and additionally support JGRIT, emerging robotic system requirements, and REP. ***FY 2015 Plans:*** JGRIT emerging robotic systems requirements, REP, Material Development Decision (MDD), initiate CRS(I) AoA, begin program Test & Evaluation Working-Level Integrated Product Team (T&E WIPT) and form a CRS(I) program IPT to support the AoA and acquisition process.			
Accomplishments/Planned Programs Subtotals	-	-	6.770

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• F00001: *OPA BCT Unmanned Ground Vehicle/JGRIT*	6.895	-	-	-	-	2.480	5.953	5.957	5.961	Continuing	Continuing

Remarks

D. Acquisition Strategy

The CRS(I) system will enter the acquisition process in the Material Solution Analysis (MSA) Phase. Per DoDI 5000.02, an Acquisition Strategy is not required in the MSA Phase of the acquisition process. An Analysis of Alternatives (AoA) will be conducted in FY15-16 to determine the best alternatives for the CRS(I) Program to choose from. The Acquisition Strategy for the CRS(I) will be developed based on the outcome of the AoA.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604641A / *TACTICAL UNMANNED GROUND VEHICLE*	Project (Number/Name) DV7 / *Small Unmanned Ground Vehicle*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CRS(I)	TBD	RSJPO : Warren, MI	0.000	-		-		5.000		-		5.000	-	5.000	-
		Subtotal	0.000	-		-		5.000		-		5.000	-	5.000	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JGRIT, emerging robotic systems requirements	TBD	RSJPO : Warren, MI	0.000	-		-		1.770		-		1.770	-	1.770	-
		Subtotal	0.000	-		-		1.770		-		1.770	-	1.770	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		-		6.770		-		6.770	-	6.770	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604641A / *TACTICAL UNMANNED GROUND VEHICLE*	**Project (Number/Name)** DV7 / *Small Unmanned Ground Vehicle*

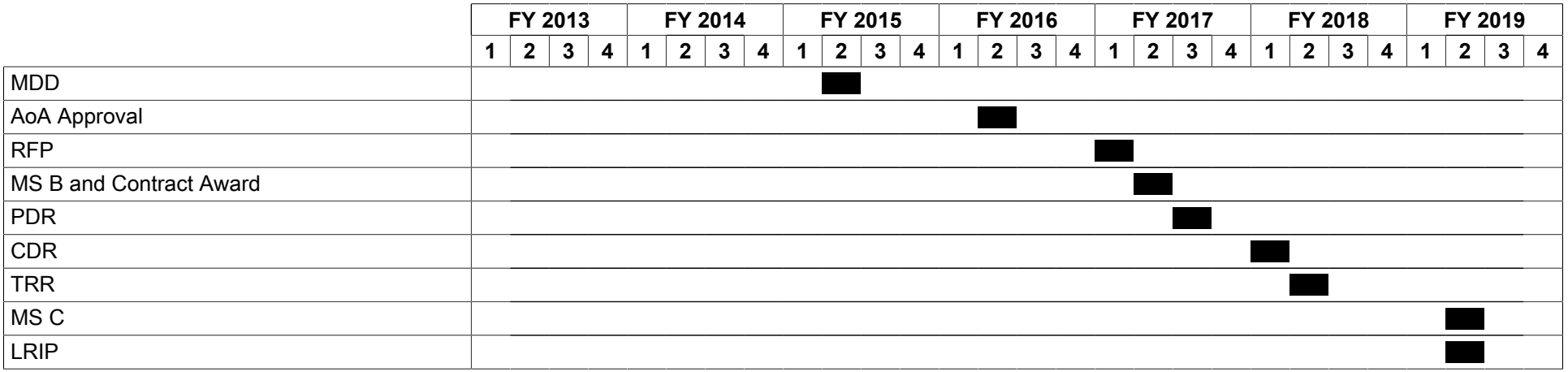

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604641A / *TACTICAL UNMANNED GROUND VEHICLE*	**Project (Number/Name)** DV7 / *Small Unmanned Ground Vehicle*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
MDD	2	2015	2	2015
AoA Approval	2	2016	2	2016
RFP	1	2017	1	2017
MS B and Contract Award	2	2017	2	2017
PDR	3	2017	3	2017
CDR	1	2018	1	2018
TRR	2	2018	2	2018
MS C	2	2019	2	2019
LRIP	2	2019	2	2019

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	29.352	43.382	65.333	-	65.333	66.635	54.586	44.762	54.199	Continuing	Continuing
L67: *Soldier Night Vision Devices*	-	-	11.265	15.256	-	15.256	12.422	12.710	19.654	24.722	Continuing	Continuing
L70: *Night Vision Dev Ed*	-	9.904	6.666	21.544	-	21.544	37.377	28.465	12.201	4.454	Continuing	Continuing
L75: *Profiler*	-	-	2.757	3.048	-	3.048	0.591	-	-	-	-	6.396
L76: *Dismounted Fire Support Laser Targeting Systems*	-	-	1.100	4.915	-	4.915	4.824	6.015	6.317	14.759	Continuing	Continuing
L79: *Joint Effects Targeting Systems (JETS)*	-	19.448	21.594	20.570	-	20.570	11.421	7.396	6.590	10.264	-	97.283

The FY 2015 OCO Request will be submitted at a later date.

Note

Program Change Summary Explanation:

Fiscal Year 2013: Program decreases of $1.212 million to Project L70 and $2.057 million to Project L79 which were Congressional and SBIR/STTR reductions.

Fiscal Year 2015: Program increases of $15.725 million to Project L70 for 3rd GEN (IFLIR) B Kit development, $10.519 million to Project L79 for JETS development, and $3.796 million to Project L76 for Dismounted Fire Support Targeting System development efforts. Program decreases of -$1.731 million to Project L67 and -$0.557 million to Project L75 realigned to higher priority Army efforts.

A. Mission Description and Budget Item Justification

This program element provides night vision/reconnaissance, surveillance and target acquisition technologies required for U. S. defense forces to engage enemy forces twenty-four hours a day under conditions of degraded visibility due to darkness, adverse weather, battlefield obscurants, foliage and man-made structures. These developments and improvements to high performance night vision electro-optics, radar, laser, and thermal systems and integration of related multi-sensor suites will enable near to long range target acquisition, identification and engagement to include significant fratricide reduction, which will improve battlefield command and control in "around-the-clock" combat operations.

Project L67 develops, improves and miniaturizes high performance night vision electro-optics, thermal and laser systems. It also provides for systems integration of related multi-sensor suites to enable near to long-range target acquisition and engagement as well as improved battlefield command and control in around-the-clock combat operations. Further, this funding supports, near term, the development, test, and evaluation of the Family of Weapon Sights (FWS). In FY 2017 through FY 2019, this funding supports Pre-shot Threat Detection (PTD) through Engineering and Manufacturing Development (EMD). It focuses on adapting demonstrated technologies

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army	Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604710A *I Night Vision Systems - Eng Dev*

that bring improvements to the dismounted Soldiers' equipment. This project develops or enhances equipment that provides the individual Soldier's day/night situational awareness and individual targeting capability, sniper fire detection and location capability, and integrates improved target location and self-location capability to eliminate friendly fire incidents.

Project L70 focuses on night vision, reconnaissance, surveillance and target acquisition (RSTA) sensor and suites of sensors to provide well-defined surveillance and targeting capabilities for a variety of Current, Modular, and Future Force platforms. This project includes: 3rd Generation Improved Forward Looking Infra-Red (3rd GEN (IFLIR)), formerly called Improved Forward Looking Infra-Red (IFLIR) B-Kit development activities, and the Assistant Secretary of the Army for Acquisition, Logistics, and Technology ASA(ALT) Common Operating Environment (COE) effort to meet network interoperability requirements and improve the soldier-machine interface of the POR.

Project L75 focuses on development of Profiler Block enhanced capabilities for meteorological(MET) measurement sensors and data. Improvements have reduced the footprint (less soldiers/vehicles) and complexity of the system, improved performance (accuracy), improved survivability, connectivity, no balloon sensor, multiple initialization data, and terrain visualization. The improved MET message data will increase lethality by enabling artillery a greater probability of first round hit with indirect fire systems. Profiler Block III provides a networked laptop configuration while further reducing the system's logistics footprint with the elimination of the High Mobility Multi-purpose Wheeled Vehicle (HMMWV) mounted shelter and trailer located in the Tactical Operations Center (TOC). The Profiler Virtual Module (PVM), a product improvement to the Block III, concept includes the following updates: update of weather model; update of software architecture removing legacy Block I code and creating a modular framework; development in conjunction with the Advanced Field Artillery Tactical Data System (AFATDS) program including AFATDS version II, to provide increased interoperability and usability; and to enable operation of the Profiler system in a virtual machine for use in the Common Operating Environment (COE) versions 2,3,4,and 5. This concept is a flexible approach that supports use of existing Block III hardware, increased accuracy during technical refresh of hardware with higher performance computers, and virtualization on the Command Post Computing Environment (CP CE) server.

Project L76 matures technologies and capabilities which benefit the Lightweight Laser Designator Rangefinder (LLDR, AN/PED-1, AN/PED-1A, and AN/PED-1B), Joint Effects Targeting System (JETS), and other precisioning targeting systems. These precision targeting systems are used by dismounted Soldiers to locate, identify, and target enemy assets. This project focuses on reducing weight, improving imaging performance, and increasing targeting accuracy. Targeting accuracy improvements will focus on affordable, non-magnetic, high accuracy, full-time (24/7), and all weather Azimuth and Vertical Angle Measurement (AVAM) devices, with reduced size, weight and power characteristics.

Project L79 focuses on the Joint Effects Targeting System (JETS) which is an Army program with joint interest (Air Force and Marine Corps). Joint Effects Targeting System (JETS) will meet the one-man, hand-held precision targeting gap identified by the Fire Center of Excellence (FCOE). JETS is a light-weight, handheld system that will provide the single dismounted observer and Joint Terminal Attack Controller (JTAC) with a common, enhanced capability to rapidly acquire, accurately locate, positively identify, and precisely designate targets. JETS Target Location and Designation System (TLDS) will be able to interface with existing and future Service Forward Entry Systems (FESs)

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	32.621	43.405	37.581	-	37.581
Current President's Budget	29.352	43.382	65.333	-	65.333
Total Adjustments	-3.269	-0.023	27.752	-	27.752
• Congressional General Reductions	-2.347	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.922	-			
• Adjustments to Budget Years	-	-0.023	27.752	-	27.752

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L67 / *Soldier Night Vision Devices*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
L67: *Soldier Night Vision Devices*	-	-	11.265	15.256	-	15.256	12.422	12.710	19.654	24.722	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project develops, improves and miniaturizes high performance night vision electro-optics, thermal and laser systems. It also provides for systems integration of related multi-sensor suites to enable near to long-range target acquisition and engagement as well as improved battlefield command and control in around-the-clock combat operations. Further, this funding supports, near term, the development, test, and evaluation of the Family of Weapon Sights (FWS). In FY17 through FY19, this funding supports Pre-shot Threat Detection (PTD) through Engineering and Manufacturing Development (EMD). It focuses on adapting demonstrated technologies that bring improvements to the dismounted Soldiers' equipment. This project develops or enhances equipment that provides the individual Soldier's day/night situational awareness and individual targeting capability, sniper fire detection and location capability, and integrates improved target location and self-location capability to eliminate friendly fire incidents.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Enhanced Night Vision Goggle (ENVG)	-	1.735	-
Articles:	-	-	-
Description: The AN/PSQ-20 ENVG is a helmet-mounted passive device for the individual Soldier that fuses image intensification and long wave infrared imagery into a single, integrated image.			
FY 2014 Plans: Initiate prodution qualification testing for multiple (AN/PSQ-20) new contracts.			
Title: Family of Weapons Sights (FWS)	-	9.530	14.256
Articles:	-	-	-
Description: FWS is a family of weapon sights that utilize advances in thermal and image intensified technologies to produce Individual (I) , Crew-Served (CS), and Sniper (S) weapon sights operable in-line with a day optic or in a stand-alone mode. FWS includes fused multi-band imagery and rapid target acquisition with ballistic equations, providing the Soldier with improved capabilities during day and night operations.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L67 / *Soldier Night Vision Devices*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FWS-I Enginerring and Manufacturing Development (EMD) effort will design, build and deliver systems for Government and Contractor testing. ***FY 2015 Plans:*** Complete Government and Contractor testing of FWS-I EMD systems in support of Milestone C, 3rd quarter FY15. Initiate FWS-CS Engineering and Manufacturing Development including completion of CS system design and build of production representative systems to support of government and contractor testing.			
Title: Small Tactical Optical Rifle Mounted (STORM) Engineering Change Proposal (ECP) ***Description:*** The AN/PSQ-23 STORM Micro-Laser Range Finder (MLRF) is a weapon-mounted multi-function laser system. It provides an eye safe laser range finder, digital compass, Infrared (IR) and visible aiming lights, and an IR illuminator for far target location with continuous range, accuracy, weight and power performance enhanced capabilities. Funding supports qualifying smaller, lighter, cheaper STORM variant (STORM SLX) with Soldiers. ***FY 2015 Plans:*** Complete Qualification test for ECP units.	-	-	0.500
Title: Laser Target Locator Module (LTLM) Engineering Change Proposal (ECP) ***Description:*** LTLM is a second generation Lightweight, Handheld Laser Target Locator with a direct view optic, un-cooled thermal camera, eye-safe laser range finder, digital magnetic compass, and an internal SAASM GPS receiver. Funding supports qualifying smaller, lighter, cheaper LTLM variant (LTLM II) with Soldiers. ***FY 2015 Plans:*** Complete LTLM II qualification testing of ECP units.	-	-	0.500
Accomplishments/Planned Programs Subtotals	-	11.265	15.256

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• 603774A VT7: *603774A - Night Vision Systems Advanced Development (VT7)*	9.556	9.061	3.052	-	3.052	5.181	5.120	4.934	4.944	Continuing	Continuing
• Helmet Mounted Enhanced Vision Devi: *Helmet Mounted*	118.698	129.111	134.365	-	134.365	137.769	88.683	63.241	77.503	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L67 / *Soldier Night Vision Devices*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Enhanced Vision Devices (HMEVD) (SSN K36400)											
• Thermal Weapon Sight (TWS): *Thermal Weapon Sight (TWS) (SSN K22900)*	20.054	100.074	-	-	-	-	-	-	0.154	Continuing	Continuing
• Family of Weapons Sights - Inidivid: *Family of Weapons Sights - Inidividual (FWS-I) (SSN K22002)*	-	-	49.205	-	49.205	45.898	71.610	66.690	86.239	Continuing	Continuing
• Family of Weapons Sights - Crew Ser: *Family of Weapons Sights - Crew Served (FWS-CS) (SSN K22003)*	-	-	-	-	-	49.815	40.633	45.544	58.894	Continuing	Continuing
• Family of Weapons Sights - Sniper: *Family of Weapons Sights - Sniper (FWS-S) (SSN K22004)*	-	-	-	-	-	-	8.788	14.458	18.697	Continuing	Continuing
• Sniper Night Sight (SNS): *Sniper Night Sight (SNS) (SSN K41500)*	11.660	-	-	-	-	-	-	-	0.020	Continuing	Continuing
• Small Tactical Optical Rifle Mounte: *Small Tactical Optical Rifle Mounted (STORM) (SSN K35110)*	20.689	22.300	18.520	-	18.520	15.096	14.826	21.275	25.047	Continuing	Continuing
• Laser Target Locators: *Laser Target Locators (LTL) (SSN B53800)*	27.593	30.949	26.536	-	26.536	27.667	30.794	18.690	14.794	Continuing	Continuing

Remarks

D. Acquisition Strategy

The various developmental programs in this project continue to exercise competitively awarded contracts using best value source selection procedures.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L67 / *Soldier Night Vision Devices*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PROGRAM MGMT	Allot	Various : Various	0.946	-		0.628	Jun 2014	1.171	Dec 2014	-		1.171	Continuing	Continuing	-
		Subtotal	0.946	-		0.628		1.171		-		1.171	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Family of Weapon Sights-Individual (FWS-I)	MIPR	Various : Various	15.904	-		8.663	Jun 2014	11.768	Dec 2014	-		11.768	-	36.335	-
		Subtotal	15.904	-		8.663		11.768		-		11.768	-	36.335	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Matrix Support	MIPR	NVESD : Ft Belvoir, VA	1.686	-		0.239	Jun 2014	0.221	Dec 2014	-		0.221	Continuing	Continuing	-
		Subtotal	1.686	-		0.239		0.221		-		0.221	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Test Support Activity	Various	Army Test and Evaluation Command : Various	41.560	-		1.735	Jun 2014	2.096	Dec 2014	-		2.096	Continuing	Continuing	-
		Subtotal	41.560	-		1.735		2.096		-		2.096	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L67 / *Soldier Night Vision Devices*	

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	60.096	-		11.265		15.256		-		15.256	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L67 / *Soldier Night Vision Devices*

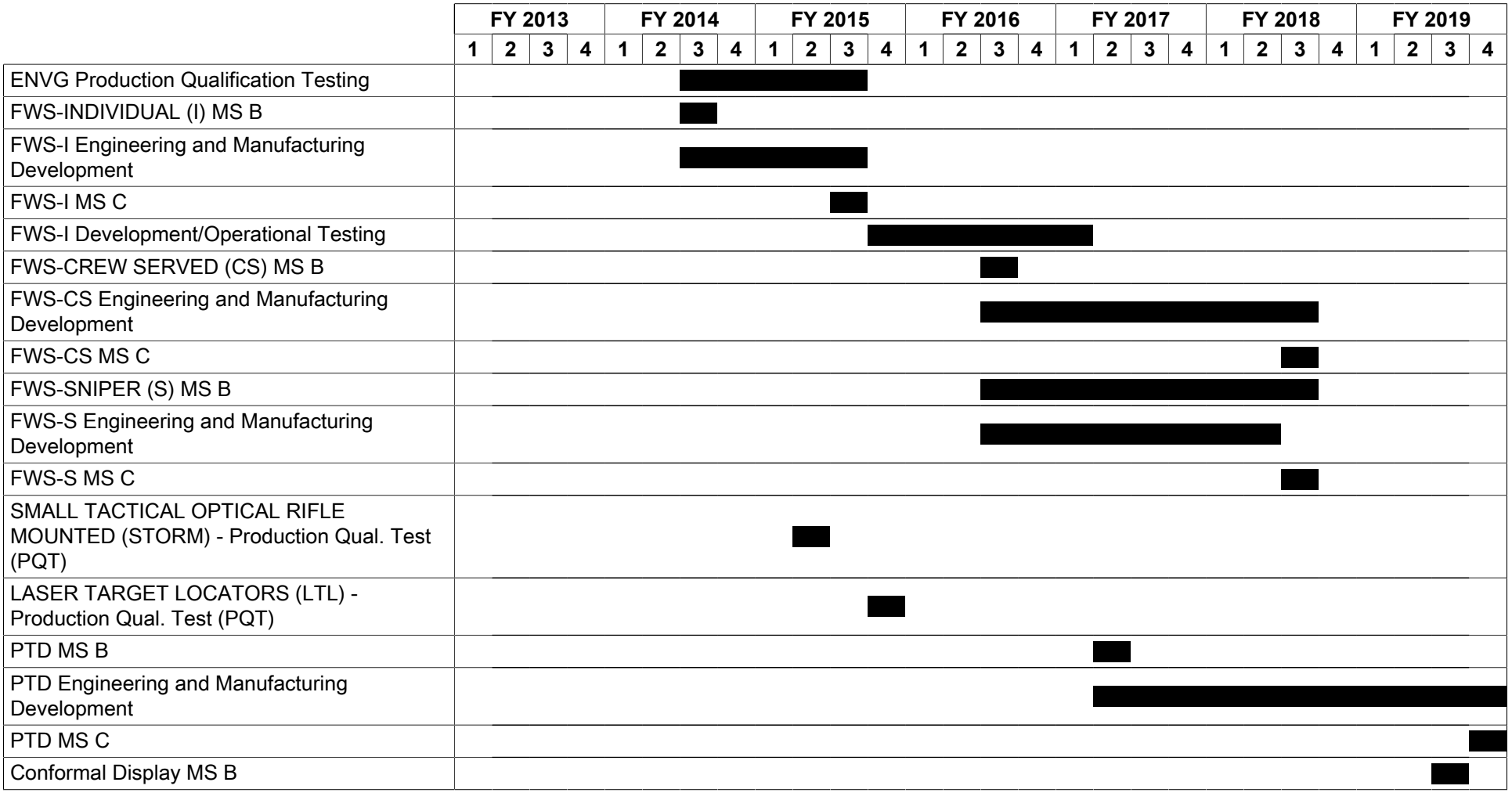

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L67 / *Soldier Night Vision Devices*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
ENVG Production Qualification Testing	3	2014	3	2015
FWS-INDIVIDUAL (I) MS B	3	2014	3	2014
FWS-I Engineering and Manufacturing Development	3	2014	3	2015
FWS-I MS C	3	2015	3	2015
FWS-I Development/Operational Testing	4	2015	1	2017
FWS-CREW SERVED (CS) MS B	3	2016	3	2016
FWS-CS Engineering and Manufacturing Development	3	2016	3	2018
FWS-CS MS C	3	2018	3	2018
FWS-SNIPER (S) MS B	3	2016	3	2018
FWS-S Engineering and Manufacturing Development	3	2016	2	2018
FWS-S MS C	3	2018	3	2018
SMALL TACTICAL OPTICAL RIFLE MOUNTED (STORM) - Production Qual. Test (PQT)	2	2015	2	2015
LASER TARGET LOCATORS (LTL) - Production Qual. Test (PQT)	4	2015	4	2015
PTD MS B	2	2017	2	2017
PTD Engineering and Manufacturing Development	2	2017	4	2019
PTD MS C	4	2019	4	2019
Conformal Display MS B	3	2019	3	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L70 / *Night Vision Dev Ed*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
L70: *Night Vision Dev Ed*	-	9.904	6.666	21.544	-	21.544	37.377	28.465	12.201	4.454	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project performs Engineering and Manufacturing Development (EMD) on high performance night vision, Reconnaissance, Surveillance, and Target Acquisition (RSTA) systems and other related systems that allow forces to locate and track enemy units in day, night, and all battlefield conditions, and through natural and man-made structures and obscurants. It also develops and integrates suites of these sensors to provide well-defined surveillance and targeting capabilities, as well as architectures for these sensors to communicate automatically. These efforts focus on meeting the requisite night vision and RSTA capabilities required for evolving Current Force, Modular Force, and Future Force systems.

The project supports the 3rd Generation Improved Forward Looking Infra-Red (3rd GEN (IFLIR)), formerly called Improved Forward Looking Infra-Red(IFLIR), EMD program, which incorporates the next generation of forward looking infrared technologies. The 3rd GEN (IFLIR) EMD program will leverage critical technology development from the Advanced Thermal Imaging EMD and Combat Vehicle Advanced Sensor Technology (CVAST) effort to develop a common 3rd GEN (IFLIR) B-Kit for integration into US Army FLIR sensor systems in accordance with the approved I-FLIR Capability Development Document (CDD). The common 3rd GEN (IFLIR) B-Kit prescribed by the I-FLIR CDD will allow the Army to achieve economies of scale and avoid duplicative engineering and development costs. As a result, 3rd GEN (IFLIR) capabilities can be delivered at a lower cost to the Abrams, Bradley, Ground Combat Vehicle Infantry Fighting Vehicle (GCV IFV), reconnaissance systems, and potentially leverage 3rd GEN (IFLIR) components for airborne applications. The 3rd GEN (IFLIR) B-Kit provides Mid Wave Infrared and Long Wave Infrared digital video and the electronic interfaces required to integrate the 3rd GEN (IFLIR) technology with the host platform sensor. This 3rd GEN (IFLIR) technology enhances the war-fighters' survivability and lethality through increased identification range performance when integrated in current sensor packages, while enabling the detection of difficult or obscured targets and faster threat detection through automated processes. The 3rd GEN (IFLIR) B-Kit EMD program is also a key element in maintaining the Army FLIR industrial base.

This project also executes the Army Sensor Computing Environment effort which is part of the Assistant Secretary of the Army for Acquisition, Logistics and Technology ASA (ALT) Common Operating Environment (COE) program. The Sensor CE effort focuses on increasing network interoperability across the enterprise and improving the Soldier-machine interface. This is done by defining, demonstrating and standardizing Sensor interfaces across the Army networks. Standardized interfaces delivered from this effort will be incorporated into current and future sensor systems and programs.

FY 2015 Base Funding in the amount of $21.544 Million supports 3rd GEN (IFLIR) B-Kit EMD and finalization of milestone and contract award activities. Additionally, FY 2015 Base Funding supports the continued activities associated with meeting network interoperability requirements and improving the Soldier-machine interface in support of the Army's vision of the Common Operating Environment (COE).

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L70 / *Night Vision Dev Ed*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: 3rd GEN (IFLIR)	5.796	6.066	21.344
Articles:	-	-	-
Description: Development of the 3rd GEN (IFLIR) B-Kit. The 3rd GEN (IFLIR) B-Kit will represent the materiel solution in accordance with the I-FLIR CDD, resulting in a common sensor component for both Ground and Airborne host platforms. ***FY 2013 Accomplishments:*** In accordance with the FY13 approval of the I-FLIR CDD and Platform ECP/Sensor Upgrade programs, funding supports 3rd GEN (IFLIR) B-Kit specification development and MSB preparation activities. ***FY 2014 Plans:*** FY 2014 Base Funding will support 3rd GEN (IFLIR) B-Kit component and platform sensor integration assessments. Funding will also support milestone and solicitation preparation activities. ***FY 2015 Plans:*** FY 2015 Base Funding supports finalization of milestone and contract award activities. Following contract award, FY15 Base Funding initiates 3rd GEN (IFLIR) B-Kit EMD development engineering.			
Title: Common Operating Environment (COE)	4.108	0.600	0.200
Articles:	-	-	-
Description: This effort supports the Common Operating Environment vision by improving the network interoperability requirement and the Soldier-machine interface. Resultant improvements to be made on a program by program basis. ***FY 2013 Accomplishments:*** FY 2013 Base Funding supports continued development of COE to include meeting the network interoperability requirement and improving the soldier-machine interface of the POR. Resultant improvements would be implemented through maintenance upgrades to fielded systems. This effort establishes the Army Sensor Computing Environment (CE) effort in support of the Common Operating Environment (COE) vision. ***FY 2014 Plans:*** FY 2014 Base Funding supports continued development of meeting the network interoperability requirement and improving the Soldier-machine interface. Resultant improvements would be implemented through upgrades to fielded systems, or informing future programs. This effort continues the Army Sensor Computing Environment (CE) effort in support of the Common Operating Environment (COE) vision. ***FY 2015 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L70 / *Night Vision Dev Ed*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2015 Base Funding supports continued development of the COE program to include meeting the network interoperability requirement and improving the Soldier-machine interface. Specific FY15 activities include configuration management and specification development & implementation.			
Accomplishments/Planned Programs Subtotals	9.904	6.666	21.544

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• ABRAMS Tank Improvement Program: *Abrams Tank Improvement Program (PE 0203735A)*	86.764	101.265	112.544	-	112.544	159.205	138.377	63.262	94.795	Continuing	Continuing
• BRADLEY Improvement Program: *Bradley Improvement Program (PE 0203735A)*	75.769	76.172	92.427	-	92.427	98.997	100.118	115.444	158.070	Continuing	Continuing
• GCV (PE 0605625A FC8): *Ground Combat Vehicle (PE 0605625A FC8)*	570.121	100.147	49.160	-	49.160	49.247	-	-	-	-	768.675
• LRAS3 (K38300): *Long Range Advanced Scout Surveillance System (LRAS3) (K38300) OPA2*	-	5.183	-	-	-	-	-	-	-	-	5.183

Remarks

D. Acquisition Strategy

Fiscal Year 2015 1st and 2nd quarter activities will focus on finalization of contract solicitation and Milestone B (MSB) preparation activities. Following MSB approval, currently planned for 3QFY15, and Milestone Decision Authority (MDA) approval of the Acquisition Strategy, the 3rd GEN (IFLIR) program plans to award multiple competitive, cost plus type Engineering Manufacturing Development (EMD) contracts structured to mitigate technical and industrial base risks. Additional activities include continued development of meeting the network interoperability requirement and improving the Soldier-machine interface in support of the Army's vision of the Common Operating Environment (COE).

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L70 / *Night Vision Dev Ed*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management	C/FP	PM TS : Ft. Belvoir, VA	8.455	0.970	Sep 2013	0.229	Mar 2014	1.241	Mar 2015	-		1.241	-	10.895	9.454
		Subtotal	8.455	0.970		0.229		1.241		-		1.241	-	10.895	9.454

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FY 2012-FY 2013: Develop, Fab, and Qual of a common Ground Platform Engine with Block II EOCCM	C/TBD	Various : Various	0.049	-		-		-		-		-	-	0.049	-
3rd GEN (IFLIR) Engineering/Document Prep	C/TBD	Various : Various	4.461	3.596	Sep 2013	3.246	Mar 2014	2.172	Mar 2015	-		2.172	-	13.475	-
3rd GEN (IFLIR) B-Kit EMD	C/CPFF	Various : Various	0.000	-		-		17.014	Jun 2015	-		17.014	-	17.014	-
PSS P3I: CE COE	C/FP	Various : Various	2.244	3.390	Sep 2013	-		-		-		-	-	5.634	8.904
		Subtotal	6.754	6.986		3.246		19.186		-		19.186	-	36.172	8.904

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
3rd GEN (IFLIR) Support	C/TBD	Various : Various	24.902	1.626	Sep 2013	2.820	Mar 2014	0.917	Mar 2015	-		0.917	-	30.265	27.995
COE Support	C/TBD	Various : Various	0.272	0.322	Apr 2014	0.371	Mar 2014	0.200	Mar 2015	-		0.200	Continuing	Continuing	-
		Subtotal	25.174	1.948		3.191		1.117		-		1.117	-	-	27.995

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L70 / *Night Vision Dev Ed*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Test Support	MIPR	Various : Various	15.850	-		-		-		-		-	-	15.850	15.850
		Subtotal	15.850	-		-		-		-		-	-	15.850	15.850

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	56.233	9.904		6.666		21.544		-		21.544	-	-	62.203

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L70 / *Night Vision Dev Ed*

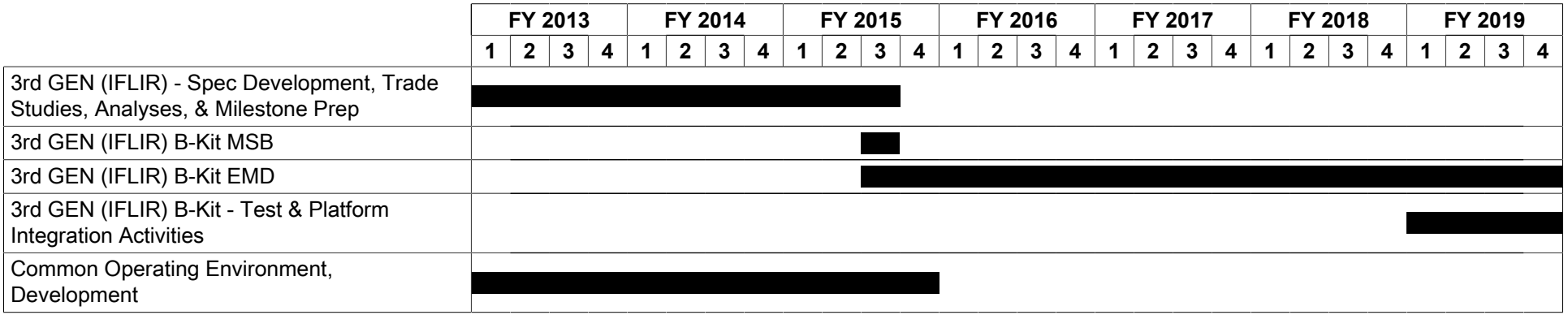

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L70 / *Night Vision Dev Ed*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
3rd GEN (IFLIR) - Spec Development, Trade Studies, Analyses, & Milestone Prep	1	2012	3	2015
3rd GEN (IFLIR) B-Kit MSB	3	2015	3	2015
3rd GEN (IFLIR) B-Kit EMD	3	2015	3	2020
3rd GEN (IFLIR) B-Kit - Test & Platform Integration Activities	1	2019	3	2020
Common Operating Environment, Development	2	2012	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L75 / *Profiler*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
L75: *Profiler*	-	-	2.757	3.048	-	3.048	0.591	-	-	-	-	6.396
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

The Profiler provides meteorological (MET) wind speed, wind direction, temperature, barometric pressure, and humidity information required for use in the Advance Field Artillery Tactical Data System (AFATDS). All of these are required for precise targeting and terminal guidance. Profiler uses a numerical mesoscale weather model to build a four-dimensional MET model (height, width, depth, and time) that includes terrain effects to cover an operational area of 500 kilometers. By providing more accurate MET messages, Profiler will enable the artillery to have a greater probability of a first round hit with indirect fire systems. This capability increases the lethality of field artillery systems such as the Multiple Launch Rocket System (MLRS), Paladin, self-propelled or towed howitzers, and mortars. Analysis determined that Profiler Block I satisfied the requirements of Profiler Block II leading to a decision to proceed directly to Profiler Block III. The Profiler Block I used a ground tactical meteorological (TACMET) sensor and MET data from the Air Force Weather Agency (AFWA) broadcast over communications satellites with the weather model to provide highly accurate MET data covering 60 kilometers. Profiler Block III replaces Profiler Block I and provides a networked laptop configuration that enhances system efficiencies and reduces the system's operational and logistics footprint with the elimination of support vehicles, trailers, external sensors and was tested out to the range of 500 kilometers. The Profiler Block III configuration consists of one computer with a common operating system co-located within the tactical Command Post (CP) with a direct interface to the CP local area network (LAN). The Profiler Virtual Module system can function in a manual or automatic mode allowing for an operator to manually create MET messages or for MET to be automatically generated in response to requests from any connected AFATDS computer. A significant Operations and Support cost is realized through this improved configuration. The Profiler Virtual Module will address emerging requirements and system long-term software sustainment challenges. The Profiler Virtual Module concept includes the following updates: update of the MET weather model which enables the use of Gridded Binary Version 2 data; update of software architecture removing legacy Block I code and creating a modular framework; development in conjunction with the AFATDS program, including AFATDS version II, to provide increased interoperability and usability; and to enable operation of the Profiler system in a virtual machine for use in the Common Operating Environment (COE) versions 2,3,4 and 5. This concept is a flexible approach that supports use of existing Block III hardware, increased accuracy during technical refresh of hardware with higher performance computers, and virtualization on the Command Post Computing Environment (CP CE) server.

FY2015 Base funding in the amount of $3.048 million supports the development and coding of requirements for Profiler Virtual Module Common Operating Environment (COE) Version 2 in support of Command Post Computing Environment (CP CE) Software Development and includes Digital Terrain Elevation Data (DTED) upgrades and improved elevation algorithms in the software.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L75 / *Profiler*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Profiler Virtual Module development	-	2.757	-
Articles:	-	-	-
Description: Profiler Virtual Module provides software architecture to create a modular framework. ***FY 2014 Plans:*** Profiler Virtual Module development			
Title: Profiler Virtual Module COE V2 development	-	-	1.948
Description: Implementation of COEv2 requirements and Digital Terrain and Elevation Data (DTED) upgrades and improved elevation algorithms. ***FY 2015 Plans:*** Implementation of COEv2 requirements and Digital Terrain and Elevation Data (DTED) upgrades and improved elevation algorithms.			
Title: Support cost for conversion of the MET model for Profiler Virtual Module	-	-	0.500
Description: Conversion of the MET model for Profiler Virtual Module ***FY 2015 Plans:*** Conversion of the MET model for Profiler Virtual Module and support for the implementation of Digital Terrain and Elevation Data (DTED) upgrades and improved elevation algorithms.			
Title: Formal Qualification Testing/Developmental Testing (FQT/DT)	-	-	0.400
Description: FQT/DT ***FY 2015 Plans:*** Formal Qualification Testing/Developmental Testing (FQT/DT)			
Title: Management Services	-	-	0.200
Description: Cost for Project Management ***FY 2015 Plans:*** Project Management			
Accomplishments/Planned Programs Subtotals	-	2.757	3.048

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L75 / *Profiler*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Profiler OPA SSN K27900: *Profiler*	11.406	3.027	3.115	-	3.115	5.585	0.409	-	-	-	23.542

Remarks

D. Acquisition Strategy

The Profiler Block III acquisition strategy decision brief to the Milestone Decision Authority (MDA) was presented in January 2010. The Acquisition Decision Memorandum (ADM) authorizing initiation of Profiler Block III was signed by the MDA on 23 February 2010. A limited competitive Firm-Fixed Price (FFP)/Cost Plus Fixed Fee (CPFF) contract was awarded via the Strategic Services Sourcing (S3) contract to build, test and deliver the Block III software to support eight (8) Profiler Block III Production Representative Prototype Systems (PRPS). The Block III program is on schedule and entered production and fielding in the first quarter of FY13. The revised Profiler Acquisition Strategy was approved by the MDA on 28 March 2012 for a product improvement to the Profiler Block III for a Virtual Module supporting the Command Post Computing Environment of the Common Operating Environment (COE).

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L75 / *Profiler*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management	Allot	PM Terrestrial Sensors : Various	2.623	-		0.270	Mar 2014	0.200	Nov 2014	-		0.200	Continuing	Continuing	Continuing
		Subtotal	2.623	-		0.270		0.200		-		0.200	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Award efforts for s/w porting to laptop	C/FP	Mantech : Red Bank, NJ	5.495	-		-		-		-		-	-	5.495	-
Initiate backup sensor effort	Various	Army Research Lab : various	1.191	-		-		-		-		-	-	1.191	-
Profiler Virtual Module SW development and data gathering	MIPR	SEC, FSED : Ft. Sill, Oklahoma	0.000	-		1.997	Mar 2014	-		-		-	-	1.997	-
Profiler Virtual Module COE V2 development and data gathering	MIPR	SEC, FSED : Ft. Sill, Oklahoma	0.000	-		-		1.948	Nov 2014	-		1.948	-	1.948	-
		Subtotal	6.686	-		1.997		1.948		-		1.948	-	10.631	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Matrix Support	MIPR	CECOM : Aberdeen, MD	3.015	-		-		-		-		-	-	3.015	-
Sys Engr/Technical Assistance	MIPR	Various : Various	1.917	-		-		-		-		-	-	1.917	-
Conversion of MET model for Profiler Virtual Module	MIPR	ARL, Various : WSMR, NM	1.267	-		0.490	Mar 2014	0.500	Nov 2014	-		0.500	Continuing	Continuing	Continuing
		Subtotal	6.199	-		0.490		0.500		-		0.500	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L75 / *Profiler*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Planning and Preparation	Various	ATEC, Various, CECOM, PRD, : Dir, APG, MD	1.557	-		-		-		-		-	-	1.557	-
Formal Qualification Test/ Developmental Test and test ramp up activities	MIPR	ATEC : Various	0.000	-		-		0.400	Nov 2014	-		0.400	Continuing	Continuing	Continuing
Limited User Test	MIPR	ATEC, : Various	1.552	-		-		-		-		-	-	1.552	-
Conduct Block III Austere Testing	MIPR	ARL, ATEC, : Aberdeen Proving Ground, MD	0.339	-		-		-		-		-	-	0.339	-
		Subtotal	3.448	-		-		0.400		-		0.400	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	18.956	-		2.757		3.048		-		3.048	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L75 / *Profiler*

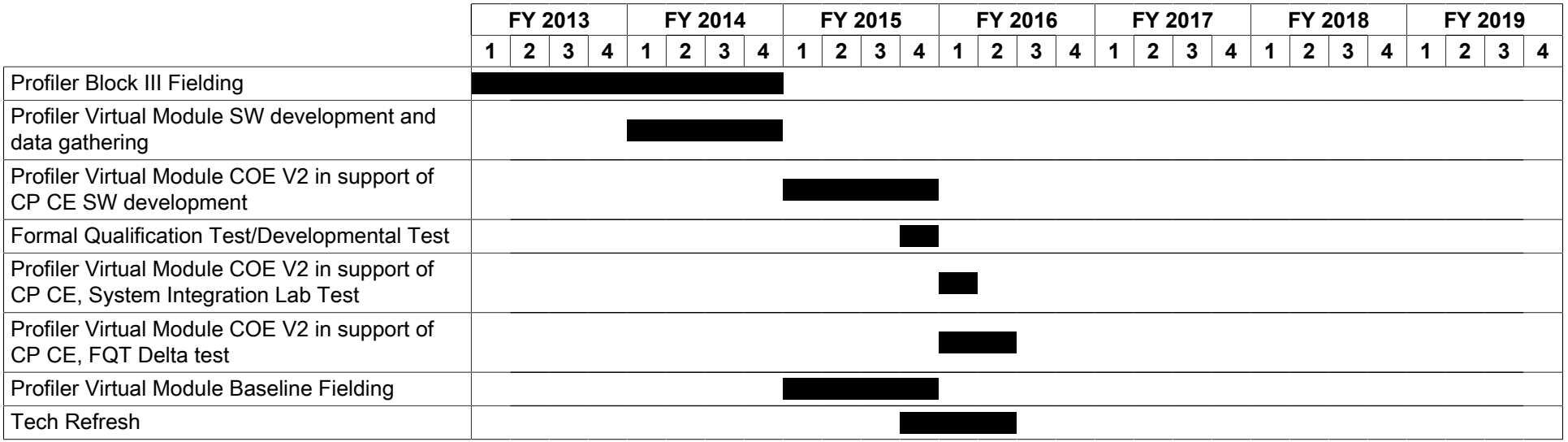

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L75 / *Profiler*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Profiler Block III Fielding	1	2013	4	2014
Profiler Virtual Module SW development and data gathering	1	2014	4	2014
Profiler Virtual Module COE V2 in support of CP CE SW development	1	2015	4	2015
Formal Qualification Test/Developmental Test	4	2015	4	2015
Profiler Virtual Module COE V2 in support of CP CE, System Integration Lab Test	1	2016	1	2016
Profiler Virtual Module COE V2 in support of CP CE, FQT Delta test	1	2016	2	2016
Profiler Virtual Module Baseline Fielding	1	2015	4	2015
Tech Refresh	4	2015	2	2016

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L76 / *Dismounted Fire Support Laser Targeting Systems*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
L76: *Dismounted Fire Support Laser Targeting Systems*	-	-	1.100	4.915	-	4.915	4.824	6.015	6.317	14.759	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project matures technologies and capabilities which benefit the Lightweight Laser Designator Rangefinder (LLDR, AN/PED-1, AN/PED-1A, and AN/PED-1B), Joint Effects Targeting System (JETS), and other precisioning targeting systems. These precision targeting systems are used by dismounted Soldiers to locate, identify, and target enemy assets. This project focuses on reducing weight, improving imaging performance, and increasing targeting accuracy. Targeting accuracy improvements will focus on affordable, non-magnetic, high accuracy, full-time (24/7), and all weather Azimuth and Vertical Angle Measurement (AVAM) devices, with reduced size, weight and power characteristics.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Azimuth and Vertical Angle Measurement (AVAM) development	-	0.900	4.315
Articles:	-	-	-
Description: AVAM is a non-magnetic based inertial navigation materiel solution for targeting devices. This AVAM effort improves azimuth accuracy leading to reduced collateral damage and improved engagement efficiency.			
FY 2014 Plans: Will fund the integration and testing of emerging smaller, lightweight, low cost AVAMs that can be inserted into the legacy Lightweight Laser Designator Rangefinder (LLDR).			
FY 2015 Plans: Continue funding the development of improved precision AVAM devices and the development of better celestial navigation systems for application to the LLDR and the Joint Effects Targeting System (JETS), and fund the investigation of integration of emerging high accuracy capabilities into the current portfolio of targeting systems.			
Title: Laser development	-	0.200	0.500
Articles:	-	-	-
Description: Development of lightweight, low cost, multi-spectral, and more efficient lasers.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L76 / *Dismounted Fire Support Laser Targeting Systems*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Funds the integration of emerging high accuracy capabilities into the current portfolio of laser targeting systems. ***FY 2015 Plans:*** Continue funding of development of lightweight, low-cost, multi-spectral, and more efficient lasers.			
Title: Target Acquisition Development ***Description:*** Focuses on development of improvements to optical detection, recognition, and identification of targets. ***FY 2015 Plans:*** Initiate improvements to imaging performance, recognition, and identification of targets.	-	-	0.100
Accomplishments/Planned Programs Subtotals	-	1.100	4.915

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• LLDR Mod-of-In-Service (SSN KA3100): *Lightweight Laser Designator Rangefinder (LLDR) Modification-of-In-Service (SSN KA3100)*	68.287	38.037	14.085	-	14.085	14.405	14.998	15.282	15.753	Continuing	Continuing
• PE 654710/DL79: *Joint Effects Targeting System (JETS) (PE 654710 Project DL79)*	19.448	21.594	20.570	-	20.570	11.421	7.396	6.590	10.264	Continuing	Continuing
• JETS (SSN K32101): *Joint Effects Targeting System (JETS) (SSN K32101)*	-	-	27.450	-	27.450	50.005	84.113	51.102	56.379	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project continues to exercise competitively awarded contracts using best value source selection procedures.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L76 / *Dismounted Fire Support Laser Targeting Systems*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Allot	PM-SSL : Ft. Belvoir VA 22060	0.000	-		0.050	Feb 2014	0.100	Oct 2014	-		0.100	-	0.150	-
		Subtotal	0.000	-		0.050		0.100		-		0.100	-	0.150	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AVAM Development and Integration	TBD	Various : TBD	0.000	-		0.850	Apr 2014	4.165	Nov 2014	-		4.165	Continuing	Continuing	-
Laser Development	TBD	Various : TBD	0.000	-		0.200	Apr 2014	0.500	Nov 2014	-		0.500	Continuing	Continuing	-
Target Acquisition Development	TBD	Various : TBD	0.000	-		-		0.100	Nov 2014	-		0.100	Continuing	Continuing	-
		Subtotal	0.000	-		1.050		4.765		-		4.765	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Matrix Support	MIPR	Various : Various	0.000	-		-		0.050	Dec 2014	-		0.050	Continuing	Continuing	-
		Subtotal	0.000	-		-		0.050		-		0.050	-	-	-

	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		1.100		4.915		-		4.915	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L76 / *Dismounted Fire Support Laser Targeting Systems*

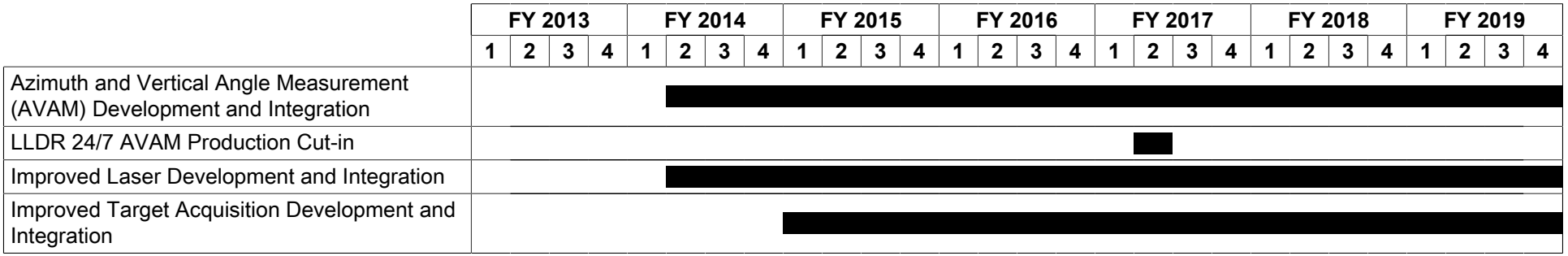

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L76 / *Dismounted Fire Support Laser Targeting Systems*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Azimuth and Vertical Angle Measurement (AVAM) Development and Integration	2	2014	4	2021
LLDR 24/7 AVAM Production Cut-in	2	2017	2	2017
Improved Laser Development and Integration	2	2014	4	2021
Improved Target Acquisition Development and Integration	1	2015	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L79 / *Joint Effects Targeting Systems (JETS)*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
L79: *Joint Effects Targeting Systems (JETS)*	-	19.448	21.594	20.570	-	20.570	11.421	7.396	6.590	10.264	-	97.283
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The Joint Effects Targeting System (JETS) is an Army program with joint interest (Air Force and Marine Corps). Joint Effects Targeting System (JETS) will meet the one-man, hand-held precision targeting gap identified by the Fire Center of Excellence (FCOE). JETS is a light-weight, handheld system that will provide the single dismounted observer and Joint Terminal Attack Controller (JTAC) with a common, enhanced capability to rapidly acquire, accurately locate, positively identify, and precisely designate targets. JETS Target Location and Designation System (TLDS) will be able to interface with existing and future Service Forward Entry Systems (FESs).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Joint Effects Targeting System (JETS) Engineering and Manufacturing Development (EMD)	19.448	21.176	17.735
Articles:	-	-	-
Description: JETS is a lightweight mission equipment set for the dismounted forward observers and Joint Terminal Attack Controllers (JTAC). JETS provides observers and controllers the means to call for fire and control delivery of air, ground and naval surface fire support, including using precision munitions and effects (both lethal and non-lethal). ***FY 2013 Accomplishments:*** Completed Full and Open EMD source selection, awarded two prime contracts, and begin EMD of JETS prototype systems from the vendors. The prototypes will include integration with precision Azimuth and Vertical Angle Measurement (AVAM) solutions. ***FY 2014 Plans:*** Continue EMD. Will complete initial build of, up to, 30 prototypes and begin an Early User Assessment (EUA) and Development Testing (DT) of prototypes at White Sands Missle Range (WSMR) and Aberdeen Proving Ground (APG). Will develop supportability products and initiate production planning. ***FY 2015 Plans:*** Complete EMD phase activities with two prime contract vendors, including completing initial build of prototypes, complete contractor testing, begin government testing of prototypes, refine supportability planning, complete production planning.			
Title: AVAM Development	-	-	1.417

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L79 / *Joint Effects Targeting Systems (JETS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Focuses on improvements to azimuth accuracy by use of inertial navigation solutions (non-magnetic) for advanced precision AVAM solutions to provide high accuracy full-time (24/7) target location as well as celestial navigation systems that provide lightweight and low cost part-time precision AVAM for target location. ***FY 2015 Plans:*** Fund the development of precision AVAM and risk mitigation, and funds the development of improved celestial navigation systems, and explore the integration of both forward observer application to the JETS.			
Title: Laser Development	-	0.418	1.418
Articles:	-	-	-
Description: Focuses on development of lightweight, low-cost, multi-spectral, and more efficient lasers. ***FY 2014 Plans:*** Initiate government engineering efforts to develop lasers. ***FY 2015 Plans:*** Continue the development of lightweight, low-cost, multi-spectral, and more efficient lasers.			
Accomplishments/Planned Programs Subtotals	19.448	21.594	20.570

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Fire Support Laser Targeting Sys: *Dismounted Fire Support Laser Targeting Systems (PE 654710 / DL76)*	-	1.100	4.915	-	4.915	4.824	6.015	6.317	14.759	Continuing	Continuing
• Joint Effects Targeting System: *Joint Effects Targeting System (SSN K32101)*	-	-	27.450	-	27.450	50.005	84.113	51.102	56.379	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project continues to exercise competitively awarded contracts using best value source selection procedures.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L79 / *Joint Effects Targeting Systems (JETS)*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L79 / *Joint Effects Targeting Systems (JETS)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Allot	PM-SSL : Ft Belvoir, VA 22060	0.000	0.680	Oct 2012	0.735	Oct 2013	0.741	Oct 2014	-		0.741	-	2.156	-
		Subtotal	0.000	0.680		0.735		0.741		-		0.741	-	2.156	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AVAM Development	C/T&M	A-Tech Corp : Albuquerque, NM 87123	7.810	0.735	Jan 2013	-		-		-		-	Continuing	Continuing	-
AVAM Development	C/T&M	Various : Various	0.000	-		-		1.417	Feb 2015	-		1.417	Continuing	Continuing	-
JETS TLDS EMD prototype development, integration, and test - Contractor BAE	C/CPFF	BAE Systems Information and Electronics : Nashua NH 03060-6909	0.000	7.800	Mar 2013	7.600	Mar 2014	5.720	Nov 2014	-		5.720	Continuing	Continuing	-
JETS TLDS EMD prototype development, integration, and test - Contractor DRS	C/CPFF	DRS RSTA, Inc : Dallas TX 75243	0.000	7.500	Mar 2013	7.900	Mar 2014	5.721	Nov 2014	-		5.721	Continuing	Continuing	-
Laser Development	C/T&M	Various : Various	0.000	-		0.418	Mar 2014	1.418	Feb 2015	-		1.418	Continuing	Continuing	-
		Subtotal	7.810	16.035		15.918		14.276		-		14.276	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Matrix Support	MIPR	Night Vision Electronics Sensors Directorate : Ft. Belvoir	6.960	1.719	Jan 2013	3.685	Jan 2014	3.824		-		3.824	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604710A / *Night Vision Systems - Eng Dev*	Project (Number/Name) L79 / *Joint Effects Targeting Systems (JETS)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Science and Engineering Support	SS/CPFF	Johns Hopkins University : Laurel, MD	0.000	0.914	Mar 2013	1.000	Jan 2014	0.600	Feb 2015	-		0.600	-	2.514	-
		Subtotal	6.960	2.633		4.685		4.424		-		4.424	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Testing	MIPR	Various : Various	0.618	0.100		0.256		1.129		-		1.129	Continuing	Continuing	-
		Subtotal	0.618	0.100		0.256		1.129		-		1.129	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	15.388	19.448		21.594		20.570		-		20.570	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L79 / *Joint Effects Targeting Systems (JETS)*

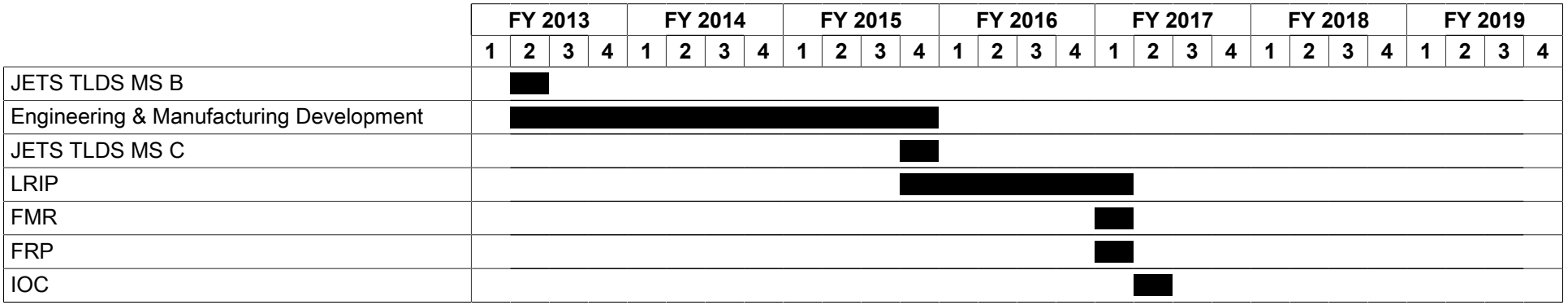

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604710A / *Night Vision Systems - Eng Dev*	**Project (Number/Name)** L79 / *Joint Effects Targeting Systems (JETS)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
JETS TLDS MS B	2	2013	2	2013
Engineering & Manufacturing Development	2	2013	4	2015
JETS TLDS MS C	4	2015	4	2015
LRIP	4	2015	1	2017
FMR	1	2017	1	2017
FRP	1	2017	1	2017
IOC	2	2017	2	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604713A / *Combat Feeding, Clothing, and Equipment*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	1.901	1.938	1.335	-	1.335	2.239	2.207	2.442	2.448	Continuing	Continuing
548: *Mil Subsistence Sys*	-	1.901	1.938	1.335	-	1.335	2.239	2.207	2.442	2.448	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

FY15: Funds realigned to higher priority Army Programs.

A. Mission Description and Budget Item Justification

This project supports the development and demonstration and Non-Developmental Item (NDI) Commercial Off The Shelf (COTS) evaluation of combat feeding equipment to enhance soldier efficiency and survivability, and to reduce food service logistics requirements for all four services. The project supports multi-fuel, rapidly deployable field food service equipment initiatives and engineering and manufacturing development to improve equipment, enhance safety in food service, and decrease fuel and water requirements. This project develops critical enablers that support the Joint Future Capabilities and Joint Expeditionary mindset, by maintaining readiness through fielding and integrating new equipment; by enhancing the field soldier's well-being; and providing soldier usable equipment. They also reduce sustainment requirements, related Combat Support/Combat Service Support (CS/CSS) demands on lift, the combat zone footprint, and costs for logistical support.

This PE/Project supports Field Feeding programs for all the services.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	2.132	1.939	2.234	-	2.234
Current President's Budget	1.901	1.938	1.335	-	1.335
Total Adjustments	-0.231	-0.001	-0.899	-	-0.899
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.231	-0.001			
• Adjustments to Budget Years	-	-	-0.899	-	-0.899

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604713A / *Combat Feeding, Clothing, and Equipment*	Project (Number/Name) 548 / *Mil Subsistence Sys*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
548: *Mil Subsistence Sys*	-	1.901	1.938	1.335	-	1.335	2.239	2.207	2.442	2.448	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project supports the development and demonstration and Non-Developmental Item (NDI) Commercial Off The Shelf (COTS) evaluation of combat feeding equipment to enhance soldier efficiency and survivability, and to reduce food service logistics requirements for all four services. The project supports multi-fuel, rapidly deployable field food service equipment initiatives and engineering and manufacturing development to improve equipment, enhance safety in food service, and decrease fuel and water requirements. This project develops critical enablers that support the Joint Future Capabilities and Joint Expeditionary mindset, by maintaining readiness through fielding and integrating new equipment; by enhancing the field soldier's well-being; and providing soldier usable equipment. They also reduce sustainment requirements, related Combat Support/Combat Service Support (CS/CSS) demands on lift, the combat zone footprint, and costs for logistical support.

This PE/Project supports Field Feeding programs for all the services.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Containerized Kitchen Modernization (CK)	0.300	0.380	0.312
Articles:	-	-	-

Description: New Containerized Kitchen layout with modular, closed combustion, thermostatically controlled appliances that reduce heat stress inside the kitchen

FY 2013 Accomplishments:
Upgrades/Improvements made as needed. Full set of modular appliance operational test prototypes will be fabricated and undergo technical testing. Specifications will be further updated to reflect maturity. Technical data will be transitioned to RESET effort.

FY 2014 Plans:
Mitigate the effects of CK generator obsolescence through the expedited integration of the Advanced Medium Mobile Power Source (AMMPS). Award contract for the design and integration of the AMMMPS into legacy CKs. Draft modification work order to capture design baseline and find costs, level of effort to modify CK fleet with AMMPS

FY 2015 Plans:
Upgrade the Containerized Kitchen with improved layout, appliances, ventilation and power generation for improved energy efficiency and operator environment. Use completed initial design to integrate the Advanced Medium Mobile Power Source

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604713A / *Combat Feeding, Clothing, and Equipment*	**Project (Number/Name)** 548 / *Mil Subsistence Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
(AMMPS) into the CK. Perform testing to validate generator interface, interoperability and performance with the CK. Develop technical data to support required Engineering Change Proposal to current system.			
Title: Containerized Ice Making System (CIMS)	0.176	-	-
Articles:	-	-	-
Description: Develop a containerized ice making system to support a 600 person base camp for cooling drinking water in extreme arid conditions and support other ice requirements for those on the base camp and for soldiers going out on missions/ patrols. ***FY 2013 Accomplishments:*** Complete OT. Prepare and approve Engineering Change Proposal (ECP) and transition into production.			
Title: Fielded Individual Ration Improvement Project (FIRIP)	0.123	0.150	0.180
Articles:	-	-	-
Description: Continuous product improvement project for the Meal Ready to Eat (MRE) ***FY 2013 Accomplishments:*** Based on field test results, present recommendations to Joint Services (2Q13) for continued product improvement of ration components/packaging/technologies for MRE (2015 DOP). Finalize MRE procurement documents and initiate transition to Defense Logistic Agency (DLA) Troop Support. Obtain Surgeon General approval of revised MRE menus. Execute production testing with industry to ensure consistent ration quality, understand PCR requirements, and resolve vendor/supplier issues. Obtain and assemble selected new items for field test. Conduct field evaluation of new candidate ration components for MRE (2016 DOP) to improve quality, acceptability, nutrition and expand variety. ***FY 2014 Plans:*** Based on field test results, present recommendations to Joint Services (2Q14) for continued product improvement of ration components/packaging/technologies for MRE (2017 DOP). Finalize MRE procurement documents and initiate transition to Defense Logistic Agency (DLA) Troop Support. Obtain Surgeon General approval of revised MRE menus. Execute production testing with industry to ensure consistent ration quality, understand PCR requirements, and resolve vendor/supplier issues. Obtain and assemble selected new items for field test. Conduct field evaluation of new candidate ration components for MRE (2017 DOP) to improve quality, acceptability, nutrition and expand variety. ***FY 2015 Plans:*** Based on field test results, present recommendations to Joint Services (2Q15) for continued product improvement of ration components/packaging/technologies for MRE (2018 DOP). Finalize MRE procurement documents and initiate transition to DLA-TS. Obtain Surgeon General approval of revised MRE menus. Execute production testing with industry to ensure consistent ration			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604713A / *Combat Feeding, Clothing, and Equipment*	**Project (Number/Name)** 548 / *Mil Subsistence Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
quality, understand PCR requirements, and resolve vendor/supplier issues. Obtain and assemble selected new items for field test. Conduct field evaluation of new candidate ration components for MRE (2017 DOP) to improve quality, acceptability, nutrition and expand variety.			
Title: Assault/Special Purpose Ration Improvement Project (ASPIP) ***Articles:*** ***Description:*** Continuous product improvement of special purpose rations by the insertion of new technologies in nutrition, processing and packaging. ***FY 2013 Accomplishments:*** Plan and execute field evaluation of new ration components for FSR. Present field test results and recommendations to Joint Services (2Q13) for continued product improvement of ration components/packaging/technologies for FSR. Develop, coordinate and finalize procurement documents to be transitioned to DLA - Troop Support. Obtain Surgeon General approval for the nutritional content of revised menus and components. ***FY 2014 Plans:*** Plan and execute field evaluation of new ration components for FSR. Present field test results and recommendations to Joint Services (2Q14) for continued product improvement of ration components/packaging/technologies for FSR. Develop, coordinate and finalize procurement documents to be transitioned to DLA - Troop Support. Obtain Surgeon General approval for the nutritional content of revised menus and components. ***FY 2015 Plans:*** Plan field evaluation of new ration components for FSR. Present recommendations to Joint Services (2Q15) for continued product improvement of ration components/packaging/technologies for FSR. Obtain Surgeon General approval for the nutritional content of revised menus and components.	0.118 -	0.165 -	0.075 -
Title: Fielded Group Ration Improvement Project (FGRIP) ***Articles:*** ***Description:*** Continuous product improvement project to continuously update/improve group ration components, menus, and packaging by integrating state-of-the-art military/commercial packaging and technology base transitions. ***FY 2013 Accomplishments:*** Based on Warfighter testing, present results/recommendations to Joint Services for UGR-H&S/E (2014/15 DOP). Present UGR-A results/recommendations to the UGR Integrated Product Team for FY14 menus. Update/coordinate menus and obtain Surgeon General approval. Provide assistance to DLA Troop Support for Limited First Article production testing of newly approved UGR-	0.128 -	0.165 -	0.156 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604713A / *Combat Feeding, Clothing, and Equipment*	**Project (Number/Name)** 548 / *Mil Subsistence Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
H&S/E items. Complete field testing of UGR-H&S/E (2015/16 DOP) and UGR-A (FY15 menus) to improve quality, nutritional intake and expand variety. Finalize UGR procurements documents for transition to DLA - Troop Support. ***FY 2014 Plans:*** Based on Warfighter testing, present results/recommendations to Joint Services for UGR-H&S/E (2014/15 DOP). Present UGR-A results/recommendations to the UGR Integrated Product Team for FY14 menus. Update/coordinate menus and obtain Surgeon General approval. Provide assistance to DLA Troop Support for Limited First Article production testing of newly approved UGR-H&S/E items. Complete field testing of UGR-H&S/E (2015/16 DOP) and UGR-A (FY15 menus) to improve quality, nutritional intake and expand variety. Finalize UGR procurements documents for transition to DLA - Troop Support. ***FY 2015 Plans:*** Based on Warfighter testing, present results/recommendations to Joint Services for UGR-H&S/E (2015/16 DOP). Present UGR-A results/recommendations to the UGR IPT for FY15 menus. Update/coordinate menus and obtain Surgeon General approval. Provide assistance to DLA-TS for Limited First Article production testing of newly approved UGR-H&S/E items. Complete field testing of UGR-H&S/E (2016/17 DOP) and UGR-A (FY16 menus) to improve quality, nutritional intake and expand variety. Finalize UGR procurement documents for transition to DLA-TS.			
Title: Navy Shipboard Galleys	0.141	0.183	0.223
Articles:	-	-	-
Description: Provide continuous Research and Development (R&D) for Navy Shipboard Galleys for state-of-the-art Galley designs and equipment technologies; support Naval Supply Systems Command (NAVSUP) foodservice equipment standardization plan; integrate automated technology such as, prognostics, diagnostics, and reliability tracking ***FY 2013 Accomplishments:*** Identify requirements and metrics for Galley refrigeration assets and procure commercial equipment. Conduct evaluations on commercial refrigeration capability under simulated Navy afloat operations against established requirements metrics. Integrate products of Navy developmental efforts. ***FY 2014 Plans:*** Identify requirements and metrics for Galley refrigeration assets and procure commercial equipment. Conduct evaluations on commercial refrigeration capability under simulated Navy afloat operations against established requirements metrics. ***FY 2015 Plans:*** Conduct in-house test and evaluation of equipment prioritized by Navy; Instrument equipment for reliability evaluations and support for ship board evaluations; transition reports to NAVSUP/NAVSEA			
Title: Integrated Thermal Control into Modern Burner Unit (MBU)	-	0.240	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604713A / *Combat Feeding, Clothing, and Equipment*	**Project (Number/Name)** 548 / *Mil Subsistence Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: Imbed a thermostatic control within the MBU to allow the kitchen appliance temperature to be regulated at a set temperature by cycling the MBU on and off automatically. ***FY 2014 Plans:*** Conduct Operational Testing (OT) on prototype. Based on a successful evaluation and concurrence from the customer, CASCOM, a new National Stock Number (NSN) for the integrated MBU will be assigned for procurement through DLA Troop Support.			
Title: Ration Airdrop Survivability	0.120	-	-
Articles:	-	-	-
Description: Provides updated high velocity airdrop performance characteristics for current ration configurations/designs, identifies ration survival rates for defined operational conditions critical to mission planning and effectiveness, and offers insight into capability gaps that might warrant revision to use protocol or appropriate product redesign and reengineering. ***FY 2013 Accomplishments:*** Extensive airdrop testing to determine components, technologies, and packaging with the highest survival rates across all ration systems and components. Perform cost/benefit analysis. Transition updated technical data to Defense Logistics Agency (DLA)-Troop Support (TS)			
Title: Joint Services Refrigerated Container System	0.308	0.151	-
Articles:	-	-	-
Description: To develop and field a highly expandable, highly efficient TriCon refrigerated container system that utilizes adaptable advanced technologies (i.e. smart power metering, novel insulation, polychromatic coatings, composites, and alternate energy sources) to enable the safe/proper storage of perishable group rations in forward deployed areas. ***FY 2013 Accomplishments:*** Conduct Developmental Testing at Aberdeen Proving Grounds (APG). Conduct User Evaluations with all Services. ***FY 2014 Plans:*** Conduct Developmental Testing at Aberdeen Proving Grounds (APG). Conduct User Evaluations with all Services.			
Title: Basic Expeditionary Airfield Resources (BEAR) Kitchen System Enhancements (BEAR-KSE)	0.230	0.294	-
Articles:	-	-	-
Description: The BEAR-KSE will evaluate multifunction appliances, reduce pallet positions, and develop TriCon and BiCon packing plans to meet the Air Forces transportability requirements of 30% by air and 70% by land, sea, and rail.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604713A / *Combat Feeding, Clothing, and Equipment*	**Project (Number/Name)** 548 / *Mil Subsistence Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Complete in-house evaluation of the food service equipment, which will meet Air Force requirements for a lighter, leaner, more rapidly deployable system. Develop 3-D models and conduct pack-out assessments to support transportability requirements of 30% by air and 70% by land, sea, and rail. ***FY 2014 Plans:*** Complete in-house evaluation of the food service equipment, which will meet Air Force requirements for a lighter, leaner, more rapidly deployable system. Develop 3-D models and conduct pack-out assessments to support transportability requirements of 30% by air and 70% by land, sea, and rail. Transition data to PM-BEAR			
Title: Assault Kitchen-Enhancement to Include UGR-A Capability	0.164	-	-
Articles:	-	-	-
Description: Develop a fully integrated refrigeration system for the Assault Kitchen to allow the AK to support UGR-A ration feeding, and menu supplements. ***FY 2013 Accomplishments:*** Complete all testing and evaluation of the enhanced Assault Kitchen configuration with refrigeration and sanitation components added to provide full Unitized Group Ration A (UGR-A) capability at and below company level. Integrate new components into Assault Kitchen for production and fielding.			
Title: Multi-Functional Secondary Packaging	0.093	-	-
Articles:	-	-	-
Description: Integrate alternative secondary packaging technologies into current ration packaging systems so as to reduce cost and waste generation, while maintaining required field performance. Production and insertion of new packaging technologies into individual, assault/special purpose and group ration systems. Provide lighter weight, lower cost, recyclable MRE and Unitized Group Ration shipping containers. ***FY 2013 Accomplishments:*** Producibility (ration assembly) and transportation studies will be performed for the new containers in comparison to the existing containers. Field testing and user acceptability/ disposability studies will be conducted. Documentation will be prepared for transition of the container specifications into continuous ration improvement projects.			
Title: Autonomous Shipboard Cleaning System	-	0.210	-
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604713A / *Combat Feeding, Clothing, and Equipment*	**Project (Number/Name)** 548 / *Mil Subsistence Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Provides an automated dishwashing system that alleviates the manual labor involved in dishwashing and reduces manning requirements for future Navy platforms. ***FY 2014 Plans:*** Finalize development of prototype developed under Phase II under the Phase III development effort. Document results of FY14 land-based testing at Natick Soldier Research Development and Engineering Center (NSRDEC). Identify if need for additional testing exists. Perform enhanced simulation testing and demonstrations of the upgraded prototypes at Naval Surface Warfare Center's test facilities			
Title: Support to Air Force Field Feeding Modernization Efforts ***Description:*** Provide continuous R&D efforts for all Expeditionary Air Force squadrons. Modernize and standardize field foodservice equipment to reduce labor, maintenance, pack-out volume and cost. Increase reliability, efficiency and sustainability. Develop comprehensive specifications and technical data packages for recommended Food Service Equipment (FSE) items; test and evaluate newer commercial FSE items for expeditionary use and smaller transportation footprint; develop total overall life cycle cost of each system; test Energy Star certified FSE items that use less power; and investigate/develop appliances that use less water, increase competition on standardized designs ***FY 2015 Plans:*** Provide continuous R&D efforts for all Expeditionary Air Force squadrons. Increase reliability, efficiency and sustainability. Provide operational test and evaluation support to the BEAR community to develop or edit equipment purchase descriptions, participate in source selection evaluations, provide technical documents to support the contract award process and participate in the design reviews.	-	-	0.190
Title: Joint Inter-service Field Feeding Burner ***Description:*** Develop, demonstrate and validate a Joint-Service, government owned JP-8 burner for field kitchen appliances. Government will control configuration, procurement, and support decisions. Establishment of a COTS parts list using widely supportable supply chain in field operations. ***FY 2015 Plans:*** Build beta units; prepare Tech Data Package; test united in a high fidelity, realistic operating environment and conduct ILS validation. Transitional information appropriately.	-	-	0.199
Accomplishments/Planned Programs Subtotals	1.901	1.938	1.335

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604713A / *Combat Feeding, Clothing, and Equipment*	**Project (Number/Name)** 548 / *Mil Subsistence Sys*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• RDT&E 643747.610: *Food Adv Dev 643747.610*	3.576	5.185	3.482	-	3.482	4.818	4.904	5.499	5.080	Continuing	Continuing
• OPA M65806: *Assault Kitchen, Field Feeding M65806*	2.448	0.423	4.889	-	4.889	4.583	4.649	4.325	4.202	Continuing	Continuing

Remarks

D. Acquisition Strategy

Complete Engineering and Manufacturing Development (EMD) and Demonstration of food items and equipment for transition into competitive procurement contract. Complete advanced research efforts to support Engineer Change Proposals for previously developed equipment.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604713A / *Combat Feeding, Clothing, and Equipment*	Project (Number/Name) 548 / *Mil Subsistence Sys*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CFP Management	C/FP	RDECOM : Natick, MA	2.014	0.183	Jan 2013	0.233	Apr 2014	0.164	Dec 2014	-		0.164	-	2.594	Continuing
SBIR+STTR	TBD	Various : Various	0.064	-		-		-		-		-	-	0.064	-
		Subtotal	2.078	0.183		0.233		0.164		-		0.164	-	2.658	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Various combat feeding equipment, multi fuel and water equipment	C/FP	RDECOM : Natick, MA	4.333	1.043	Jan 2013	0.873	Mar 2014	0.601	Dec 2014	-		0.601	-	6.850	Continuing
DOD Field Feeding Equipment	C/FP	Various : Various	3.137	0.200	Jan 2013	0.278	Apr 2014	0.188	Dec 2014	-		0.188	-	3.803	Continuing
Army Field Feeding Equipment Development	C/FP	PM Force Sustainment Systems (FSS) : Natick, MA	2.125	0.141	Apr 2013	0.211	Mar 2014	0.142	Mar 2015	-		0.142	-	2.619	Continuing
		Subtotal	9.595	1.384		1.362		0.931		-		0.931	-	13.272	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Various	Various	TECOM/OEC/ATC : Warren, MI	3.375	0.334	Apr 2013	0.343	May 2014	0.240	May 2015	-		0.240	-	4.292	Continuing
		Subtotal	3.375	0.334		0.343		0.240		-		0.240	-	4.292	-

	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	15.048	1.901		1.938		1.335		-		1.335	-	20.222	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604713A / *Combat Feeding, Clothing, and Equipment*	Project (Number/Name) 548 / *Mil Subsistence Sys*	

	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604713A / *Combat Feeding, Clothing, and Equipment*	**Project (Number/Name)** 548 / *Mil Subsistence Sys*

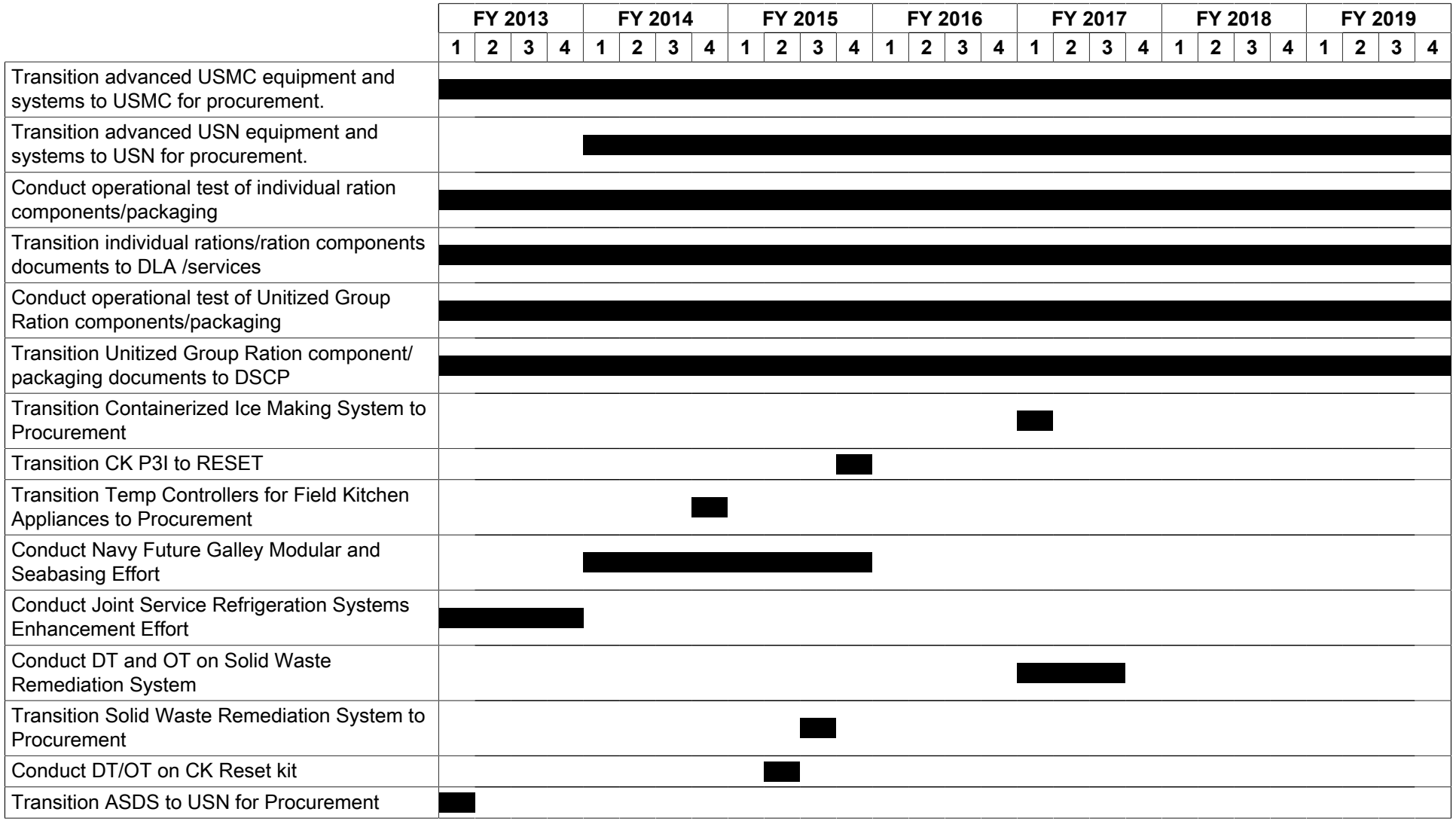

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604713A / *Combat Feeding, Clothing, and Equipment*	**Project (Number/Name)** 548 / *Mil Subsistence Sys*

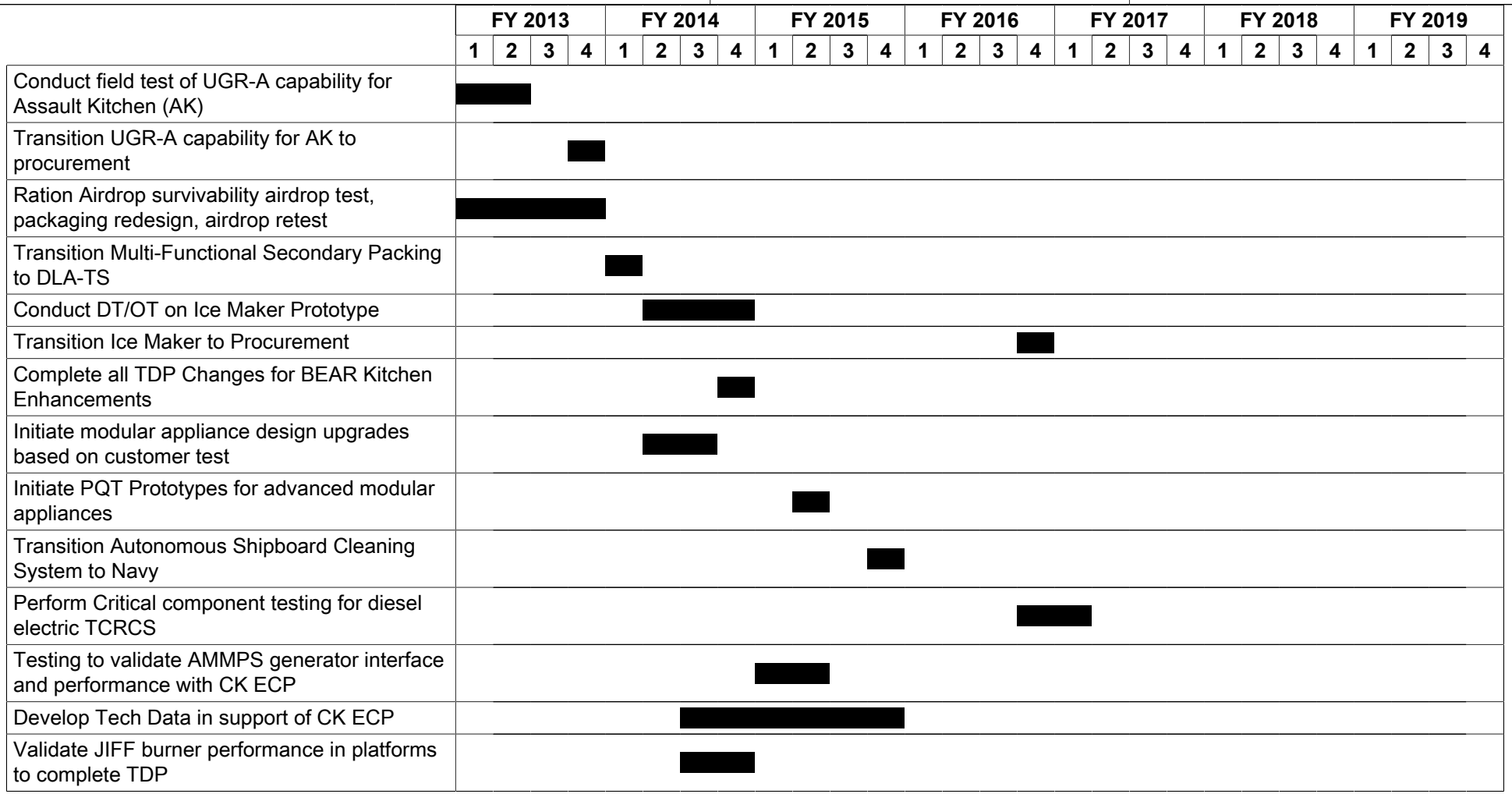

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604713A / *Combat Feeding, Clothing, and Equipment*	**Project (Number/Name)** 548 / *Mil Subsistence Sys*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Transition advanced USMC equipment and systems to USMC for procurement.	1	2013	4	2021
Transition advanced USN equipment and systems to USN for procurement.	1	2014	4	2021
Conduct operational test of individual ration components/packaging	1	2009	4	2021
Transition individual rations/ration components documents to DLA /services	1	2009	4	2021
Conduct operational test of Unitized Group Ration components/packaging	1	2009	4	2021
Transition Unitized Group Ration component/packaging documents to DSCP	1	2009	4	2021
Transition Containerized Ice Making System to Procurement	1	2017	1	2017
Transition CK P3I to RESET	4	2015	4	2015
Transition Temp Controllers for Field Kitchen Appliances to Procurement	4	2014	4	2014
Conduct Navy Future Galley Modular and Seabasing Effort	1	2014	4	2015
Conduct Joint Service Refrigeration Systems Enhancement Effort	1	2012	4	2013
Conduct DT and OT on Solid Waste Remediation System	1	2017	3	2017
Transition Solid Waste Remediation System to Procurement	3	2015	3	2015
Conduct DT/OT on CK Reset kit	2	2015	2	2015
Transition ASDS to USN for Procurement	1	2013	1	2013
Conduct field test of UGR-A capability for Assault Kitchen (AK)	3	2012	2	2013
Transition UGR-A capability for AK to procurement	4	2013	4	2013
Ration Airdrop survivability airdrop test, packaging redesign, airdrop retest	1	2012	4	2013
Transition Multi-Functional Secondary Packing to DLA-TS	1	2014	1	2014
Conduct DT/OT on Ice Maker Prototype	2	2014	4	2014
Transition Ice Maker to Procurement	4	2016	4	2016
Complete all TDP Changes for BEAR Kitchen Enhancements	4	2014	4	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604713A / *Combat Feeding, Clothing, and Equipment*	**Project (Number/Name)** 548 / *Mil Subsistence Sys*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Initiate modular appliance design upgrades based on customer test	2	2014	3	2014
Initiate PQT Prototypes for advanced modular appliances	2	2015	2	2015
Transition Autonomous Shipboard Cleaning System to Navy	4	2015	4	2015
Perform Critical component testing for diesel electric TCRCS	4	2016	1	2017
Testing to validate AMMPS generator interface and performance with CK ECP	1	2015	2	2015
Develop Tech Data in support of CK ECP	3	2014	4	2015
Validate JIFF burner performance in platforms to complete TDP	3	2014	4	2014

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604715A *I Non-System Training Devices - Eng Dev*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	40.470	18.971	8.945	-	8.945	35.311	42.052	27.123	22.740	Continuing	Continuing
241: *Nstd Combined Arms*	-	35.385	15.933	5.860	-	5.860	32.335	39.052	24.227	19.768	Continuing	Continuing
573: *Program Executive Office Simulation, Training Spt*	-	5.085	3.038	3.085	-	3.085	2.976	3.000	2.896	2.972	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

Funds were realigned to higher priority requirements.

A. Mission Description and Budget Item Justification

Program Element funds development of Non-System Training Devices to support force-on-force training at the Combat Training Centers (CTC), general military training, and training on more than one item/system, as compared with system devices which are developed in support of a specific item/weapon system. Training devices and training simulations contribute to the modernization of the forces by enabling and strengthening combat effectiveness through realistic training solutions for the Warfighter. Training devices maximize the transfer of knowledge, skills, and experience from the training situation to a combat situation. Force-on-force training at the National Training Center (NTC), Ft. Irwin, CA; Joint Readiness Training Center (JRTC), Ft. Polk, LA, and Joint Multinational Readiness Center (JMRC), formerly the Combat Maneuver Training Center (CMTC), Hohenfels, Germany; and battle staff training in Battle Command Training Program (BCTP) provide increased combat readiness through realistic collective training in low, mid, and high intensity scenarios. Project 241, Non-System Training Devices-Combined Arms, develops simulation training devices for Army-wide use, including the CTCs. Project 573 funds key organizational support to Army/DoD Transformation via innovative simulation and training device efforts. Program Executive Office (PEO) Simulation, Training and Instrumentation (STRI's) unique geographic co-location with other services facilitates joint training solutions in a common environment.

FY 2015 Project 241 funds significant development efforts on the Combat Training Center Instrumentation Systems (CTC-IS), Home Station Instrumentation Training System (HITS), and Live, Virtual, Constructive Integrating Architecture (LVC-IA).

FY 2015 Project 573 will provide for minimum PEO STRI core operations supporting development of training devices and simulations by PEO STRI's four Project Management Offices.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604715A / *Non-System Training Devices - Eng Dev*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	44.787	18.980	32.481	-	32.481
Current President's Budget	40.470	18.971	8.945	-	8.945
Total Adjustments	-4.317	-0.009	-23.536	-	-23.536
• Congressional General Reductions	-0.059	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.130	-			
• Adjustments to Budget Years	-0.007	-0.009	-23.536	-	-23.536
• Sequester Adjustments	-3.121	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604715A / *Non-System Training Devices - Eng Dev*	Project (Number/Name) 241 / *Nstd Combined Arms*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
241: *Nstd Combined Arms*	-	35.385	15.933	5.860	-	5.860	32.335	39.052	24.227	19.768	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

Common Training Instrumentation Architecture (CTIA) provides the common product-line architecture, product line software, standards, services, and architecture framework for developing the Live Training Transformation (LT2) Product Line of live training systems supporting Army-wide live instrumented Force-On-Force (FOF) and Force-On-Target (FOT) training requirements and is the core live architecture for the Live, Virtual, Constructive Integrated Training Environment (LVC-ITE).

Combat Training Center Instrumentation System (CTC-IS) funds the continued development of the existing Instrumentation Systems (IS) at the National Training Center (NTC), Joint Readiness Training Center (JRTC) and Joint Multinational Readiness Center (JMRC). Also, CTC-IS funds the continued development of the Range Communication System at the NTC and JRTC, to provide high-fidelity live, virtual, and constructive brigade training rotations which prepare Brigade Combat Teams, Joint partners, and supporting units to deploy in support of Army Force Generation (ARFORGEN). CTC-IS develops new data communications systems increasing tracking accuracy and coverage at the CTCs to provide greater training fidelity to training units.

The Home Station Instrumentation Training System (HITS) provides a high-fidelity deployable instrumented training capability to support platoon thru battalion level Live Force-on-Force Training. HITS tracks location of soldiers and vehicles and simulates weapons' effects and engagements, allowing units to "Train as they Fight" against live opponents. HITS provides accurate feedback to training units. HITS consists of light deployable components that can be rapidly assembled/disassembled and transported to support deployed training. HITS integrates with future and legacy MILES. HITS is a member of the Live Training Transformation (LT2) family of training systems and shares several hardware and software components with the Instrumentation Systems (IS). HITS provides the Live domain for Live-Virtual-Constructive (LVC) training integration.

The Medical Simulation Training Center (MSTC) provides realistic medical training to both medical and non-medical Soldiers in the Active, Reserve, and National Guard. MSTCs provide hands-on instruction on the latest battlefield trauma and critical care techniques based on Army Medical Department (AMEDD) approved performance oriented Program of Instruction (POI). Medical treatment validation exercises simulate the high stress of performing medical interventions in combat. MSTC supports Unit Medical Readiness by validating Combat Medic (68W) Emergency Medical Technician (EMT) biennial recertification requirements and to provide Combat Lifesaver (CLS) training to non-medical Soldiers.

The Engagement Skills Trainer (EST) is a virtual, small arms, marksmanship training simulator for teams and squads with a standard mix of light, heavy and crew-served weapons used in Overseas Contingency Operations (OCO) and support of Unified Land Operations (ULO). The EST provides training for individual marksmanship, small unit collective gunnery skills and tactical training. It incorporates judgmental use of force, including escalation of force and graduated response scenarios. As the only validated and accredited virtual small arms training system, the EST is a critical element of the U.S. Army's gated marksmanship training strategy.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604715A / *Non-System Training Devices - Eng Dev*	**Project (Number/Name)** 241 / *Nstd Combined Arms*

The Live, Virtual, Constructive Integrating Architecture (LVC-IA) provides a net-centric linkage that collects, retrieves and exchanges data among existing Training Aids, Devices, Simulations, and Simulators (TADSS) and Mission Command Systems (Joint and Army). The LVC-IA defines the "how" information is exchanged among the different LVC domains and the Mission Command Systems. The LVC-IA provides enterprise level tools for exercise control, after action review, and system information assurance. It also provides hardware and software to interface the different Live, Virtual and Constructive communication protocols and provides a correlated common operating picture for the training audience on their organic Mission Command equipment. The integration of the Live, Virtual, and Constructive TADSS with the Mission Command equipment will enable larger, more robust training events better preparing U.S. Soldiers for their missions at an overall reduced cost. The end-state goal is to enable an LVC Integrated Training Environment that can approximate Operational Environments in a cost effective manner to provide a high level of value-added training and mission rehearsal opportunities to Army Commanders and their Soldiers.

Comprehensive Soldier & Family Fitness (CSF2) is research and development efforts that include Future Soldier Assessment Tool (DASH-R) Project, Global Assessment Tool (GAT) 3.0 Project, and Program Evaluation (PE) Project.

FY 2015 Project 241 funds significant development efforts on the Combat Training Center Instrumentation Systems (CTC-IS), Home Station Instrumentation Training System (HITS), Live, Virtual, Constructive Integrating Architecture (LVC-IA), and Comprehensive Soldier & Family Fitness (CSF2).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Common Training Instrumention Architecture (CTIA) program.	1.635	0.872	-
Articles:	-	-	-
Description: Continue EMD phase contract activities for the CTIA program to provide the common architecture capabilities.			
FY 2013 Accomplishments: Continued development of CTIA to provide the common architecture capabilities that are essential for development, fielding, technology and capability insertion for Live Training Systems (LTS) to include: the Combat Training Centers-Instrumentation Systems (CTC-IS), Integrated Military Operations in Urbanized Terrain Training System (IMTS), Home Station Instrumentation Systems (HITS), Digital Ranges Training System (DRTS) training instrumentation programs and the Live, Virtual, Constructive-Integrated Training Environment (LVC-ITE) interoperability initiatives.			
FY 2014 Plans: Continue development of CTIA to provide the common architecture capabilities that are essential for development, fielding, technology and capability insertion for Live Training Systems (LTS) to include: the Combat Training Centers-Instrumentation Systems (CTC-IS), Integrated Military Operations in Urbanized Terrain Training System (IMTS), Home Station Instrumentation			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604715A / *Non-System Training Devices - Eng Dev*	**Project (Number/Name)** 241 / *Nstd Combined Arms*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Systems (HITS), Digital Ranges Training System (DRTS) training instrumentation programs and the Live, Virtual, Constructive-Integrated Training Environment (LVC-ITE) interoperability initiatives.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Combat Training Center Instrumentation System (CTC-IS). ***Articles:*** ***Description:*** Continue EMD phase contract activities for the CTC-IS. ***FY 2013 Accomplishments:*** Combat Training Center Instrumentation System (CTC-IS) funded the continued development of the existing Instrumentation Systems (IS) at the National Training Center (NTC), Joint Readiness Training Center (JRTC) and Joint Multinational Readiness Center (JMRC). Funding is also being used to develop a common Range Communications System (RCS) that can be implemented at all three Combat Training Centers for increased entity tracking coverage and accuracy in order to increase After Action Review fidelity for Brigade Combat Team rotations to better prepare units for deployment. ***FY 2014 Plans:*** Combat Training Center Instrumentation System (CTC-IS) will fund the continued development of the existing Instrumentation Systems (IS) at the National Training Center (NTC), Joint Readiness Training Center (JRTC) and Joint Multinational Readiness Center (JMRC). Funding will be used to develop a common Range Communications System (RCS) that can be implemented at all both NTC and JRTC for increased entity tracking coverage and accuracy in order to increase After Action Review fidelity for Brigade Combat Team rotations to better prepare units for deployment. ***FY 2015 Plans:*** Combat Training Center Instrumentation System (CTC-IS) will fund the continued development of the existing Instrumentation Systems (IS) at the National Training Center (NTC), Joint Readiness Training Center (JRTC) and Joint Multinational Readiness Center (JMRC). Funding will be used to develop a common Range Communications System (RCS) that can be implemented at all both NTC and JRTC for increased entity tracking coverage and accuracy in order to increase After Action Review fidelity for Brigade Combat Team rotations to better prepare units for deployment.	13.537 -	2.560 -	2.918 -
Title: Government Program Management for the Combat Training Center Instrumentation System (CTC-IS) program. ***Articles:*** ***Description:*** Government Program Management for the CTC IS program. ***FY 2013 Accomplishments:***	1.299 -	1.343 -	1.302 -

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Program Management for the Combat Training Center Instrumentation System (CTC-IS) program. ***FY 2014 Plans:*** Program Management for the Combat Training Center Instrumentation System (CTC-IS) program. ***FY 2015 Plans:*** Program Management for the Combat Training Center Instrumentation System (CTC-IS) program.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Homestation Instrumentation Training System (HITS) program. ***Articles:*** ***Description:*** EMD phase contract activities for the HITS program. ***FY 2013 Accomplishments:*** Integrated, and tested Synthetic Environment Core (SE Core) into the Home Station Instrumentation Training System (HITS) Exercise Control (EXCON) to establish a common terrain database among all components within the Live, Virtual, and Constructive Integrated Training Environment. The HITS Capabilities Production Document (CPD) requires the integration of SECore. Developed, integrated, and tested the OneTESS Mortar interface with the HITS EXCON to expand the scope of provided instrumentated training to mortar teams and platoons. ***FY 2015 Plans:*** Integrate and test the interface between HITS and latest versions of the Live, Virtual, and Constructive Integrating Architecture to sustain the Integrated Training Environment (ITE) at Home Stations. Develop, integrate, and test the interfaces with new versions of TESS and upgrades to existing fielded I-MILES.	0.937 -	- -	0.103 -
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Medical Simulation Training Center (MSTC). ***Articles:*** ***Description:*** EMD phase contract activities for the MSTC program. ***FY 2013 Accomplishments:*** Development of the Medical Training Command and Control (MT-C2) to incorporate the management of a remote training platform. Enhancement of Virtual Patient System (VPS) Airway Management Trainer to implement chest tube and needle chest decompression, along with normal and abnormal anatomical variations and injuries. Enhancement of VPS Intravenous (IV) Arm to improve the realism of simulated human tissues and incorporate detailed task analysis of the IV insertion training.	1.007 -	- -	- -
Title: Government Program Management for the Medical Simulation Training Center (MSTC) program.	-	0.075	-

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: Government Program Management for the MSTC program. ***FY 2014 Plans:*** Research management costs associated with Instructor Support System (ISS) development efforts for the FY14 Medical Simulation Training Center (MSTC) program.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Engagement Skills Trainer (EST) program.	0.609	0.800	-
Articles:	-	-	-
Description: EMD phase contract activities for the Engagement Skills Trainer (EST) program. ***FY 2013 Accomplishments:*** Integrated an EST prototype of the AN/PEQ 15-A Laser Aiming Device. The AN/PEQ 15-A offers exceptional functionality in the field for maximum visibility. Operators can easily switch between the visible laser, IR laser, IR illuminator or a combination of both laser and illuminator. Ideal for special operations or covert missions, the DBAL-A2 ensures performance in the toughest conditions and situations. Fielded in Iraq, Afghanistan and by multiple law enforcement agencies, the DBAL-A2 is setting a higher standard for aiming lasers. EST prototyping of the M145 Machine Gun Optic. The M145 Machine Gun Optic (MGO), a variant of the C79 optical scope, is a small arms scope manufactured by ELCAN Optical Technologies with 3.4x28 magnification. It was developed for the U.S. Army and is commonly mounted on M240 and M249 machine guns. The reticle is illuminated by a battery-powered LED with varying intensity settings. ***FY 2014 Plans:*** Develop EST Dynamic Terrain to accurately portray all battlefield effects, in accordance with the Contemporary Operating Environment (COE), across the full range of military operations including: friendly and enemy forces and their doctrine, tactics, techniques and procedures; all military recognized terrain; atmospheric and weather conditions; specific enemy and friendly vehicles and equipment; dynamic, correlated terrain; the effects of munitions on personnel, vehicles, structures; and develop prior years efforts (weapons, optics, etc). Develop enhanced capabilities in accordance with the capability manager's priorities.			
Title: Live, Virtual, Constructive Integrating Architecture (LVC-IA) Engineering and Manufacturing Development (EMD) phase contract activity.	6.036	6.207	-
Articles:	-	-	-
Description: Continue EMD phase contract activities for the LVC-IA program. ***FY 2013 Accomplishments:***			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Began system development and performed design, development, integration and demonstration of the Live, Virtual, Constructive Integrating Architecture (LVC-IA) Version 2 capability. ***FY 2014 Plans:*** Complete system development, integration and demonstration of the Live, Virtual, Constructive Integrating Architecture (LVC-IA) Version 2 capability.			
Title: Government Program Management for the Live, Virtual, Constructive Integrating Architecture (LVC-IA) Program. ***Articles:*** ***Description:*** Government Program Management for the LVC-IA Program. ***FY 2013 Accomplishments:*** Program Management for the LVC-IA Program. ***FY 2014 Plans:*** Program Management for the LVC-IA Program. ***FY 2015 Plans:*** Program Management for the LVC-IA Program.	1.127 -	1.240 -	0.939 -
Title: Live, Virtual, Constructive Integrating Architecture (LVC-IA) Program Government System Test and Evaluation. ***Articles:*** ***Description:*** Government System Test and Evaluation for the LVC-IA Program. ***FY 2013 Accomplishments:*** LVC-IA continued to test support on the engineering and manufacturing development phase for Version 2. The program supported integration testing on developed components for LVC-IA with other Mission Command Systems and LVC Training Aids. Conducted federation integration event (FIE) and functional verification (FV) events for LVC-IA. ***FY 2014 Plans:*** LVC-IA continues integration testing support on developed components for LVC-IA for interoperability with TADSS and other Mission Command Systems. LVC-IA will conduct Federation Integration, Functional Verification and system measurement of performance (SMP) events, complete Test Readiness Review (TRR) and Government Acceptance Testing for Version 2.	0.961 -	1.000 -	- -
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Target Modernization program. ***Articles:*** ***Description:*** EMD phase contract activities for the Target Modernization program.	1.059 -	- -	- -

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Target Modernization completed development of target system technologies which provide enhanced realism (look and behavior), threat/friend identification, and training performance feedback mechanisms.			
Title: Government Program Management for the Target Modernization program.	0.163	-	-
Articles:	-	-	-
Description: Government Program Management for Target Modernization.			
FY 2013 Accomplishments: Program Management for the Target Modernization program.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the One Tactical Engagement Simulation System (OneTESS) program.	6.676	1.494	-
Articles:	-	-	-
Description: Continue EMD phase contract activities for the OneTESS program			
FY 2013 Accomplishments: Completed prep for IOT&E Increment I.			
FY 2014 Plans: Perfrom Operational Test, complete procurement of Technical Data Package (TDP).			
Title: Government Program Management for the One Tactical Engagement Simulation System (OneTESS) program.	0.339	0.342	-
Articles:	-	-	-
Description: Government Program Management for the One Tactical Engagement Simulation System (OneTESS) program.			
FY 2013 Accomplishments: Government Program Management for the One Tactical Engagement Simulation System (OneTESS) program.			
FY 2014 Plans: Government Program Management for the OneTactical Engagement Simulation System (OneTESS) program.			
Title: Comprehensive Soldier & Family Fitness (CSF2)	-	-	0.598
Description: Comprehensive Soldier & Family Fitness (CSF2), the Army community's premier resilience and health training program.			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2015 Plans: Developing, testing, and implementing a variety of psychometric instruments administered on an electronic world-wide delivery platform; evaluation of CSF2 training effectiveness at influencing objective outcomes in the health and work performance domains; applying advanced statistical analysis techniques to emerging human subjects problems identified by the Army senior leadership (e.g., suicide, violent crime, sexual assault / harassment, etc).			
Accomplishments/Planned Programs Subtotals	35.385	15.933	5.860

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Training Devices, Non-System: *Training Devices, Non-System*	135.350	163.433	101.295	-	101.295	249.625	231.020	228.943	255.168	Continuing	Continuing
• CTC Support: *CTC Support*	104.511	121.710	65.062	-	65.062	83.273	77.616	106.763	52.427	Continuing	Continuing

Remarks

D. Acquisition Strategy

Competitive development efforts based on performance specifications.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
OneTESS Program Management	Various	PEO STRI : Orlando, FL	8.046	-		-		-		-		-	-	8.046	8.046
OneTESS Program Management	Various	PEO STRI, : Orlando, FL	1.414	0.339	Dec 2012	0.342	Feb 2014	-		-		-	-	2.095	2.095
CTC-IS Program Management	Various	PEO STRI : Orlando, FL	1.421	1.299	Dec 2012	1.343	Mar 2014	1.302	Mar 2015	-		1.302	Continuing	Continuing	Continuing
HITS Program Management	Various	PEO STRI : Orlando, FL	0.400	-		-		-		-		-	-	0.400	0.400
MSTC Program Management	Various	PEO STRI : Orlando, FL	0.382	-		0.075		-		-		-	Continuing	Continuing	Continuing
EST Program Management	Various	PEO STRI : Orlando, FL	0.214	-		-		-		-		-	-	0.214	-
LVC-IA Program Management	Various	PEO STRI : Orlando, FL	3.166	1.127	Dec 2012	1.240	Dec 2013	0.939	Dec 2014	-		0.939	Continuing	Continuing	Continuing
Target Modernization	Various	PEO STRI : Orlando, FL	0.451	0.163	Dec 2012	-		-		-		-	-	0.614	0.614
ETC-IS Program Management	Various	PEO STRI : Orlando, FL	0.164	-		-		-		-		-	-	0.164	0.164
CSF2	TBD	Multiple : Various	0.000	-		-		0.160		-		0.160	Continuing	Continuing	-
		Subtotal	15.658	2.928		3.000		2.401		-		2.401	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
OneTESS	SS/CPFF	General Dynamics : Fairfax, VA	124.769	-		-		-		-		-	-	124.769	124.769
CTIA	SS/CPFF	TBS : TBS	1.585	-		-		-		-		-	-	1.585	1.585
OneTESS	SS/CPFF	General Dynamics C4 Systems : Orlando, FL 32826	3.278	6.676	Dec 2012	0.494	Nov 2013	-		-		-	-	10.448	10.448

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CTIA	C/CPFF	Lockheed Martin Inc. : Orlando, FL	57.091	-		-		-		-		-	-	57.091	57.091
CTIA	C/CPFF	General Dynamics C4 Systems : Orlando, FL	3.177	1.096	Dec 2012	0.325	Mar 2014	-		-		-	-	4.598	4.598
CTC-IS	C/FFP	Northrop Grumman Technical Services : Herndon, VA	13.466	13.537	Jul 2013	2.560	Mar 2014	2.918	Mar 2015	-		2.918	Continuing	Continuing	Continuing
HITS	C/FFP	Riptide : Orlando, FL	1.379	-		-		-		-		-	-	1.379	1.379
HITS	C/IDIQ	General Dynamics C4 Systems : Orlando, FL 32826	0.688	0.937	May 2013	-		-		-		-	-	1.625	1.625
HITS	C/FFP	TBS : TBS	0.000	-		-		0.103	Jun 2015	-		0.103	Continuing	Continuing	Continuing
MSTC Development	C/FP	Multiple : Various	2.027	1.007	Apr 2014	-		-		-		-	Continuing	Continuing	Continuing
EST Development	SS/FP	TBD : Various	1.528	-		-		-		-		-	Continuing	Continuing	Continuing
EST PEQ-15A	C/FP	TBS : TBD	0.000	0.609	Jun 2014	-		-		-		-	-	0.609	-
EST Enhanced Capabilities	C/FFP	TBS : TBD	0.000	-		0.800	Apr 2014	-		-		-	-	0.800	-
LVC-IA Development	C/CPAF	Cole Engineering Services, Inc : Various	17.206	6.036	Jun 2013	6.207	Jun 2014	-		-		-	Continuing	Continuing	Continuing
Target Modernization	C/CPFF	General Dynamics C4 Systems : Orlando, FL	3.668	1.003	Dec 2012	-		-		-		-	-	4.671	4.671
Congressional Add Center of Excellence for Military Operations in Urban Terrain and Cultural Trn	C/FP	Multiple : Various	2.996	-		-		-		-		-	-	2.996	2.996
ETC-IS	SS/CPFF	General Dynamics C4 Systems : Orlando, FL 32826	4.836	-		-		-		-		-	-	4.836	4.836
CSF2	TBD	Multiple : Various	0.000	-		-		0.020		-		0.020	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	237.694	30.901		10.386		3.041		-		3.041	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
OneTESS	Various	Various : Orlando, FL	6.596	-		-		-		-		-	-	6.596	6.596
OneTESS	Various	Various : Various	0.262	-		-		-		-		-	-	0.262	0.262
CTIA	Various	Various : Various	11.758	0.539	Dec 2012	0.547	Mar 2014	-		-		-	-	12.844	12.844
Target Modernization	Various	Various : Various	0.136	0.056	Dec 2012	-		-		-		-	-	0.192	0.192
CSF2	TBD	Multiple : Various	0.000	-		-		0.070		-		0.070	Continuing	Continuing	-
		Subtotal	18.752	0.595		0.547		0.070		-		0.070	-	-	19.894

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
OneTESS Development & Test	Various	Multiple : Orlando, FL	4.162	-		-		-		-		-	-	4.162	4.162
OneTESS Test Support	Various	Multiple : Orlando, FL	0.280	-		1.000	Feb 2014	-		-		-	-	1.280	1.280
HITS	Various	Various : Orlando, FL	0.740	-		-		-		-		-	-	0.740	0.740
LVC-IA Test Support	Various	Multiple : Orlando, FL	2.208	0.961	Dec 2012	1.000	Apr 2014	-		-		-	Continuing	Continuing	Continuing
IEDES	Various	Multiple : Orlando, FL	0.519	-		-		-		-		-	-	0.519	0.519
CSF2	TBD	Multiple : Various	0.000	-		-		0.348		-		0.348	Continuing	Continuing	-
		Subtotal	7.909	0.961		2.000		0.348		-		0.348	-	-	-

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	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	280.013	35.385		15.933		5.860		-		5.860	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
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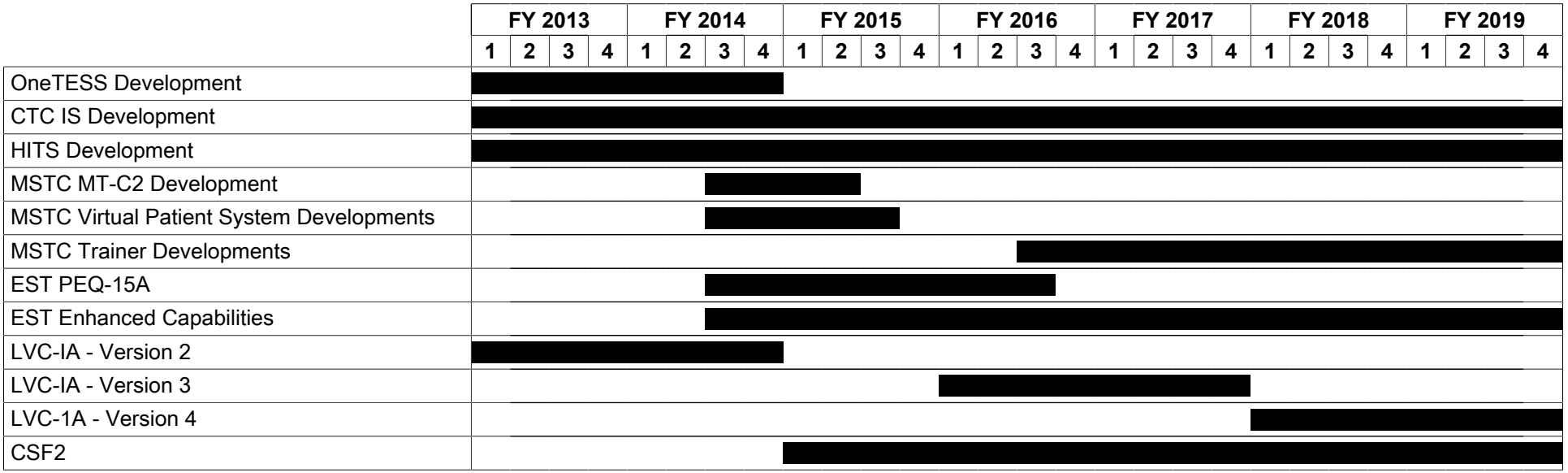

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
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Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
OneTESS Development	1	2013	4	2014
CTC IS Development	1	2010	4	2019
HITS Development	3	2012	4	2019
MSTC MT-C2 Development	3	2014	2	2015
MSTC Virtual Patient System Developments	3	2014	3	2015
MSTC Trainer Developments	3	2016	4	2019
EST PEQ-15A	3	2014	3	2016
EST Enhanced Capabilities	3	2014	4	2019
LVC-IA - Version 2	1	2013	4	2014
LVC-IA - Version 3	1	2016	4	2017
LVC-1A - Version 4	1	2018	4	2019
CSF2	1	2015	4	2019

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COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
573: *Program Executive Office Simulation, Training Spt*	-	5.085	3.038	3.085	-	3.085	2.976	3.000	2.896	2.972	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

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A. Mission Description and Budget Item Justification

In support of Non-System Training Devices (NSTD), this project funds the US Army Program Executive Officer Simulation, Training and Instrumentation (PEO STRI) core operations supporting development of training devices and simulations by PEO STRI project managers (PM TRADE, PM ITTS, PM CATT, and PM Constructive Simulation) FY 2015 funds labor in support of PEO operations.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Government Program Management to support PEO STRI.	5.085	3.038	3.085
Articles:	-	-	-
Description: Government Program Management to support PEO STRI.			
FY 2013 Accomplishments: Government Program Management to support PEO STRI labor for project managers in PM TRADE, PM ITTS, PM CATT, and PM Constructive Simulation.			
FY 2014 Plans: Government Program Management to support PEO STRI labor for project managers in PM TRADE, PM ITTS, PM CATT, and PM Constructive Simulation.			
FY 2015 Plans: Government Program Management to support PEO STRI labor for project managers in PM TRADE, PM ITTS, PM CATT, and PM Constructive Simulation.			
Accomplishments/Planned Programs Subtotals	5.085	3.038	3.085

C. Other Program Funding Summary ($ in Millions)

N/A

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C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management- PEO STRI	Various	PEO STRI : Orlando, FL	9.731	5.085	Dec 2012	3.038		3.085		-		3.085	Continuing	Continuing	Continuing
		Subtotal	9.731	5.085		3.038		3.085		-		3.085	-	-	-

	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	9.731	5.085		3.038		3.085		-		3.085	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
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	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Government Program Management																												

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604715A / *Non-System Training Devices - Eng Dev*	**Project (Number/Name)** 573 / *Program Executive Office Simulation, Training Spt*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Government Program Management	1	2010	4	2019

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604716A / *TERRAIN INFORMATION - ENG DEV*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	1.008	-	-	-	-	-	-	-	-	-	1.008
579: *FIELD ARMY MAP SYS ED*	-	1.008	-	-	-	-	-	-	-	-	-	1.008

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

Distributed Common Ground System - Army (DCGS-A) is the Intelligence, Surveillance and Reconnaissance (ISR) System of Systems (SoS) for Joint, Interagency, Allied, Coalition, and National data analysis, sharing and collaboration. The core functions of DCGS-A are: the vertical and horizontal synchronization ISR Processing, Exploitation and Dissemination (PED) efforts and operates in a networked environment at multiple security levels; the control of select Army and joint sensor systems; the fusion of all acquired data and information, and distribution of relevant red (threat), gray (non-aligned), and environmental (weather and terrain) information; and the Warfighter's early warning and targeting capability. DCGS-A provides a single integrated ISR ground processing system composed of common components that are interoperable with sensors, other information sources, all Warfighting Functions, and the Defense Information & Intelligence Enterprise (DI2E). DCGS-A is fielded in Fixed and Mobile configurations emphasizing the use of reach and split based operations by improving accessibility of data in order to reduce forward deployed footprint. As enhanced capabilities are developed and tested, annual software releases are integrated into Army Common/commodity hardware and fielded to units IAW the Army Force Generation (ARFORGEN)cycle.

The Project Manager Distributed Common Ground System - Army is responsible for developing topographic support systems for the Army. PM DCGS-A provides automated terrain analysis, terrain data management and graphics reproduction in support of Intelligence Preparation of the Battlefield (IPB), Command and Control, Terrain Visualization, weapons and sensor systems, and other topographic information customers. Geospatial topographic support components of PM DCGS-A consists of the Digital Topographic Support System - Light (DTSS-L), DTSS-Deployable (DTSS-D), Intelligence Fusion System (IFS), DCGS-A Standard Cloud, and the High Volume Map Production (HVMP) equipment. Experimentation results from the Div XXI Army Warfighter Experiment (AWE) identified technological enhancements necessary to support the First and Second Digital Divisions (FDD) and the Transformation Brigades.

The FY 2013 funding amount is $0.928 million. Due to a system error, the number presented above could not be changed.

Program has no FY15 Base or OCO requirement.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604716A / *TERRAIN INFORMATION - ENG DEV*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	1.008	-	-	-	-
Current President's Budget	1.008	-	-	-	-
Total Adjustments	-	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604716A / *TERRAIN INFORMATION - ENG DEV*	Project (Number/Name) 579 / *FIELD ARMY MAP SYS ED*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
579: *FIELD ARMY MAP SYS ED*	-	1.008	-	-	-	-	-	-	-	-	-	1.008
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This Project funds development of the geospatial and terrain capability to support topographic development in support of Army operations. DCGS-A systems use Commercial Off the Shelf (COTS) software. DCGS-A topographic capability variants include: DTSS-Light (DTSS-L) which is shelter mounted on a HMMWV, Intelligence Fusion Server (IFS) which is mounted in hand carried transit cases, and the High Volume Map Production System (HVMP) which reproduces digital maps. Current force DCGS-A systems provide the commander the ability to rapidly obtain terrain information and produce digital topographic products. The traditional terrain analysis, topographic and reproduction support provided by Army Engineer Terrain Teams was a slow, labor intensive process that did not meet the needs of the digital battlefield. The DCGS-A provides digital terrain analysis and map updates to commanders and weapons platforms in support of mission planning (e.g., imagery exploitation, Cover and Concealment, other Intelligence Preparation of the Battlespace), rehearsal (e.g., 3D fly through, simulations) and execution (e.g., Common Operational Picture, route planning). The DTSS automates terrain analysis and visualization, data base (development, updating, management, and dissemination), and graphics reproduction. The DCGS-A Inetlligence, Sureveillance, and Reconnaissance (ISR) Modernization Plan emphasizes the development of a combined, integrated, tactically deployable, fully autonomous terrain analysis and graphics reproduction capability. These capabilities are being provided through virtualized software components delivered across the DCGS-A Enterprise, including HMMWV shelterized (DTSS-L) and transit case (Intelligence Fusion System (IFS)) configurations. The DTSS-L is highly mobile and capable of supporting a full range of military operations, as well as peacetime stability and support operations. The IFS provides a COTS configuration that is capable of operating all of the terrain analysis software. The IFS consists of transportable workstations and peripherals that can be set up to augment the tactical configurations. PM DCGS-A systems are deployed from Company through Echelon above Corps, Stryker Brigades and Special Forces Groups. Additionally, an institutional training classroom environment has been developed and integrated into the curriculum at the National Geospatial/Intelligence School (NGS). NGS provides critical MOS (Military Occupation Specialty) specific training on the operation and use of Conbat Terrain Information Systems (CTIS. Products developed as part of the PM DCGS-A RDT&E program (e.g., improved Battle Command Systems interoperability, migration to Joint Technical Architecture - Army (JTA-A) and Common Operating Environment (COE), improved data base management and distribution, automated feature extraction, improved tactical terrain decision aid functionality, rapid terrain visualization, battlefield terrain reasoning awareness (BTRA), and improved graphics reproduction) are being incorporated into all of the DCGS-A software architectures.

The FY 2013 funding amount is $0.928 million. Due to a system error, the number presented above could not be changed.

Program has no FY15 Base or OCO requirement.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Continue P3I development for DTSS.	1.008	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604716A / *TERRAIN INFORMATION - ENG DEV*	**Project (Number/Name)** 579 / *FIELD ARMY MAP SYS ED*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: Continue P3I development for DTSS - Initiate transition of functionality to DCGS-A, continue investigation of COTS upgrades, continue improvement of coalition/joint interoperability. ***FY 2013 Accomplishments:*** Continue P3I development for DTSS - Continue transition of functionality to DCGS-A, continue investigation of COTS upgrades, continue improvement of coalition/joint interoperability.			
Accomplishments/Planned Programs Subtotals	1.008	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• DCGS-A MIP RDTE: *0305208A*	38.673	27.607	20.155	-	20.155	25.710	25.965	26.409	30.717	Continuing	Continuing
• DCGS-A MIP OPA: *BZ7316*	274.119	118.090	128.207	-	128.207	284.696	259.717	286.822	322.675	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Distributed Common Ground System-Army (DCGS-A) program was created in response to the Department of Defense (DoD) Distributed Common Ground/Surface System (DCGS) Mission Area Initial Capabilities Document (MA ICD) dated 13 Aug 2004, which captured the overarching requirements for an Intelligence, Surveillance, and Reconnaissance (ISR) Family of Systems (FoS) that will contribute to Joint and combined Warfighter needs. That ICD was updated as the Distributed Common Ground/Surface System (DCG/SS) Enterprise ICD, and approved by the Joint Requirements Oversight Council (JROC) 27 Feb 2009. The Army requirements were refined in the DCGS-A Capabilities Development Document (CDD), and approved by the JROC 31 Oct 2005. The DCGS-A program is currently in the Production and Deployment phase and was designated as a Major Automated Information System (MAIS) in OSD (AT&L) Memorandum, 29 Mar 2010.

DCGS-A is following an evolutionary acquisition approach to develop and field system capabilities over time to satisfy the requirements of the DCGS-A Capability Development Document (CDD). Following this approach, the first increment was defined and a Capability Production Document (CPD) was created with full consideration of all of the preceding supporting documents and analysis. As part of its initial staffing, a Cost Benefit Analysis was completed in support of the DCGS-A CPD. This analysis projected a significant cost avoidance/savings over the life cycle by not limiting the hardware configuration to a one size fits all unit types design but rather integrating the DCGS-A SW capabilities into common servers and other IT components fielded at that echelon. This approach was included in the CPD and updated DCGS-A Acquisition Strategy. The CPD was approved by the JROC on 20 Dec 2011.

The DCGS-A System Engineering Plan (SEP) updated the current development plan and was approved by OASD (R&E) on 5 Dec 2011. The DCGS-A Revised Acquisition Strategy (AS) was approved by the Defense Acquisition Executive (DAE) on 21 Mar 2012. The DCGS-A Acquisition Program Baseline was approved on

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604716A / *TERRAIN INFORMATION - ENG DEV*	**Project (Number/Name)** 579 / *FIELD ARMY MAP SYS ED*

29 Mar 12. The DCGS-A program received a milestone C decision on 29 Feb 2012 and an operational test was completed in Jun 2012. A successful Full Deployment Decision (FDD) for Release 1 Initial Minimum Capability was obtained December 2012.

PM DCGS-A has been designated as the Command Post Computing Environment (CPCE) Lead for PEO IEW&S. As such, DCGS-A is currently aligning it's architecture to fit within the Common Operating Environment (COE) as described by the ASA(ALT) COE Implementation Plan. This alignment is in accordance with the G-3/5/7 priority to align all Army networks, procurements, and enhancements under one COE and one vision. Our acquisition strategy supports this initiative as we continue to collapse PORs and reduce footprint following our capability migration path and iterative development of software releases which continue to increase capabilities to satisfy the remaining CPD requirements beyond Initial Minimal Capability. As DCGS-A continues the path through Increment 1 and beyond, each release will focus on the COE and continually align the Command Post activities with DCGS-A Cloud and POR migration activities. The program office expects to continue as the DCGS-A System Integrator for software development and hardware integration, and will continue to access multiple vendors by leveraging a variety of competitively awarded contracts.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604716A / *TERRAIN INFORMATION - ENG DEV*	Project (Number/Name) 579 / *FIELD ARMY MAP SYS ED*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
-	TBD	- : -	1.593	1.008		-		-		-		-	-	2.601	-
		Subtotal	1.593	1.008		-		-		-		-	-	2.601	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.593	1.008		-		-		-		-	-	2.601	-

Remarks

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604741A *I Air Defense Command, Control and Intelligence - Eng Dev*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	42.876	18.284	15.906	-	15.906	20.248	19.632	19.878	20.165	Continuing	Continuing
126: *FAAD C2 ED*	-	3.413	3.406	-	-	-	-	-	-	-	-	6.819
146: *Air & Msl Defense Planning Control Sys*	-	13.875	13.303	13.539	-	13.539	15.871	16.082	16.227	16.408	Continuing	Continuing
149: *Counter-Rockets, Artillery & Mortar*	-	25.588	1.575	2.367	-	2.367	4.377	3.550	3.651	3.757	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

FY13 RDTE reflects a Congressional adjustment in the amount of -$24.925 million for the termination of the C-RAM Interceptor Enhancements effort in addition to an adjustment of -$5.532 million for higher HQDA priorities.

FY15 Base RDTE reflects an adjustment in the amount of -$4.992 million for higher HQDA priorities.

A. Mission Description and Budget Item Justification

The Forward Area Air Defense Command and Control (FAAD C2) system collects, digitally processes, and disseminates real-time target cuing and tracking information; the common tactical 3-dimentional air picture; and command, control, and intelligence information to all Air and Missile Defense (AMD) weapon systems (Avenger and Man-Portable Air Defense System (MANPADS)), and joint and combined arms systems. The FAAD C2 system provides alerting data to air defense gunners, airspace battle management, and up-linking of mission operations. Situational awareness and targeting data is provided on threat aircraft, cruise missiles, and unmanned aerial systems (UAS). FAAD C2 software is a key component of the Air Defense and Airspace Management (ADAM) Cell that is being fielded to Brigade Combat Teams (BCT), Multi-Functional Support Brigades and Division Headquarters as part of the Army's modularity concept. FAAD C2 is also a principal air defense system within the Homeland Defense Program. Soldiers from activated Army National Guard AMD battalions operate the FAAD C2 systems in the National Capital Region and other locations.

The Air and Missile Defense Planning and Control System (AMDPCS) is an Army Objective Force System that provides integration of AMD operations at all echelons. AMDPCS systems are deployed with Air Defense Artillery (ADA) brigades, Army Air and Missile Defense Commands (AAMDCs), and ADAM Cells at the Brigade Combat Teams (BCTs), Multi Functional Support Brigades and Divisions/Corps. AMDPCS systems also provide air defense capabilities to Homeland Defense systems. The fielding of ADAM Cells is essential in fulfilling the Army's Modularity requirement. ADAM Cells provide the Commander at BCTs, Brigades and Divisions with air defense situational awareness and airspace management capabilities. They also provide the interoperability link with Joint, multinational and coalition forces. AMDPCS components are vital in the transformation of ADA units and the activation of the AMD Battalions and AMD Composite Battalions. AMDPCS has three major components: (1) Air and Missile Defense Workstation (AMDWS) is an automated defense and staff planning tool that displays the common tactical and operational 3-dimentional air picture; (2) Air Defense System Integrator (ADSI) is a communications data link processor and display system that provides near-real time, 3-

dimensional, joint airspace situational awareness and fire direction command and control for AMD forces; (3) Army Air Defense shelter configurations use automated data processing equipment, tactical communications, Common Hardware Systems, standard vehicles and tactical power to provide AMD unit commanders and staffs with the capabilities to plan missions, direct forces, and control the airspace.

Counter-Rocket, Artillery, Mortar (C-RAM) is an evolutionary, non-developmental program initiated by the Army Chief of Staff in response to the indirect fire (IDF) threat and a validated Operational Needs Statement (ONS). The primary mission of the C-RAM program is to develop, procure, field, and maintain a system-of-systems (SoS) that can detect RAM launches; provide localized warning to the defended area, with sufficient time for personnel to take appropriate action; intercept rounds in flight, thus preventing damage to ground forces or facilities; and enhance response to and defeat of enemy forces. The C-RAM capability is comprised of a combination of multi-service fielded and non-developmental item (NDI) sensors, command and control (C2) systems, warning systems, and a modified U.S. Navy intercept system (Land-based Phalanx Weapon System (LPWS)), with a commercial off-the-shelf (COTS) wireless local area network. The C-RAM SoS capability is currently deployed at multiple sites in Afghanistan, providing correlated air and ground pictures, linking units to the Army Mission Command and the Joint Defense Network, and using various forms of communications to provide situational awareness and exchange of timely and accurate information in order to synchronize and optimize automated Shape, Sense, Warn, Intercept, Respond, and Protect decisions.

Multiple acquisition efforts are associated with the C-RAM program, including C-RAM Intercept, which fields existing LPWS guns to two Indirect Fire Protection Capability (IFPC)/Avenger composite Battalions, and RAM Warn, a horizontal technology insertion, using current C-RAM warning equipment to provide early, localized warning to all Maneuver Brigade Combat Teams (BCT). Prior year C-RAM RDTE funding was shared to conduct RAM Warn test activities in support of the Milestone C decision.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	73.333	18.294	20.898	-	20.898
Current President's Budget	42.876	18.284	15.906	-	15.906
Total Adjustments	-30.457	-0.010	-4.992	-	-4.992
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	-30.457	-0.010	-4.992	-	-4.992

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	Project (Number/Name) 126 / *FAAD C2 ED*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
126: *FAAD C2 ED*	-	3.413	3.406	-	-	-	-	-	-	-	-	6.819
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The Forward Area Air Defense Command and Control (FAAD C2) system collects, digitally processes, and disseminates real-time target cuing and tracking information. FAAD C2 provides the common tactical 3-dimensional air picture and command, control, and intelligence information to all Air and Missile Defense (AMD) weapon systems (Avenger and Man-Portable Air Defense System (MANPADS)), and joint and combined arms systems. The FAAD C2 system provides alerting data to air defense gunners, airspace battle management, and up-linking of mission operations, thereby enhancing force protection against air and missile attack. Situational awareness and targeting data is provided on threat aircraft, cruise missiles, and unmanned aerial systems (UAS). The FAAD C2 system provides this mission capability by integrating dynamic FAAD C2 engagement operations software with the Multifunctional Information Distribution System (MIDS), Single Channel Ground and Airborne Radio System (SINCGARS), Enhanced Position Location and Reporting System (EPLRS), Global Positioning System (GPS), Airborne Warning and Control Systems (AWACS), Sentinel radar, and the Common Operating Environment (COE) architecture. In addition, FAAD C2 provides interoperability with Joint C2 systems and horizontal integration with PATRIOT and Theater High-Altitude Area Defense (THAAD) by fusing sensor data to create a scalable and filterable Single Integrated Air Picture (SIAP) and common tactical picture. The system software is a key component of the Air Defense and Airspace Management (ADAM) Cell that is being fielded to Brigade Combat Teams (BCTs), Multi-Functional Support Brigades and Divisions/Corps as part of the Army's modularity concept. System software is able to provide target data and engagement commands/status to AMD Battalions. FAAD C2 is also a principal air defense system within the Homeland Defense Program. Soldiers from activated ARNG (Army National Guard) AMD battalions operate the FAAD C2 systems in the National Capital Region and other locations.

Program funding provides a method to rapidly keep pace with leading edge technologies and maintain interoperability and backwards compatibility caused by improvement to other system components (upgrade from common hardware version 3 to 4 and EPLRS enhancements).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: FAAD C2 Software Development	3.413	3.406	-
Articles:	-	-	-
Description: Support FAAD C2 software development including unique software enhancements in support of Homeland Defense (HLD), software solutions for Host-Based Software Security (HBSS) and Common Operating Environment (COE) mandates, and security accreditation updates. Integrate Improved Sentinel radar. Incorporate IFF modes 1, 2, 3 (active decode), 5/S capabilities, and self-reporting systems.			
FY 2013 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 126 / *FAAD C2 ED*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continued FAAD C2 software development including unique software enhancements in support of Homeland Defense. Supported FAAD C2 software development including: 3-D Common Warfighter Machine Interface (CWMI), IBCS Virtualization Development/ Environment and Enhance ABM Simulation. Continued to support implementation of HBSS and IPv6 address scheme. Continued to implement evolving COE requirements for real time systems. Continued security accreditation updates. ***FY 2014 Plans:*** Complete FAAD C2 software requirements for short range air defense capabilities in support of Homeland Defense. Supporting FAAD C2 software development including: Avenger Upgrades for HLD, CWMI 2D/3D Man Machine Interface Enhancements, Enhance the Battlefield Geometries passing between AMDWS & FAAD C2. Continue to support software on Advanced Battle Management and enhanced capability for Digital Clearance of Fires. Continue to implement evolving COE requirements for real time systems. Continue security accreditation updates.			
Accomplishments/Planned Programs Subtotals	3.413	3.406	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• SSN AD5050: *SSN AD5050, FAAD C2*	5.024	4.607	-	-	-	-	-	-	-	-	9.631
• PE 0604741A, Proj 149: *PE 0604741A, Proj 149, Counter-Rockets, Artillery & Mortar*	25.588	1.575	2.367	-	2.367	4.377	3.550	3.651	3.757	Continuing	Continuing
• SSN H30503: *SSN H30503, Rocket, Artillery, Mortar (RAM) Warn (Parent is IFPC Family of Systems: BZ0501)*	27.345	11.929	27.652	-	27.652	43.061	29.061	-	-	-	139.048
• SSN H30504: *SSN H30504, C-RAM Enhancements (Parent is IFPC Family of Systems: BZ0501)*	-	43.425	40.644	-	40.644	18.122	16.182	-	-	-	118.373
• PE 0604741A, Proj 146: *PE 0604741A, Proj 146, Air & Missile Defense Planning and Control System*	13.875	13.303	13.539	-	13.539	15.871	16.082	16.227	16.408	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 126 / *FAAD C2 ED*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• SSN AD5070: *SSN AD5070, Air & Missile Defense Planning and Control System*	53.059	13.090	27.374	-	27.374	28.410	32.727	32.980	33.325	Continuing	Continuing
• PE 0604319A, Proj DU3: *PE 0604319A, Proj DU3, IFPC (FY12 PE0603305A IFPC II - Intercept)*	25.710	79.190	96.177	-	96.177	156.523	90.980	58.214	27.663	Continuing	Continuing
• PE 0605457A, Proj S40: *PE 0605457A, Proj S40, Army Integrated Air and Missile Defense (AIAMD)*	233.892	369.452	142.584	-	142.584	215.659	228.791	170.828	154.565	Continuing	Continuing
• SSN BZ5075: *SSN BZ5075, IAMD Battle Command System*	-	-	-	-	-	21.091	206.300	298.990	379.981	Continuing	Continuing
• PE 060482A, Proj E10: *PE 060482A, Proj E10, Sentinel*	3.734	1.548	5.224	-	5.224	12.213	11.389	10.906	12.132	Continuing	Continuing

Remarks

The above listed programs are interrelated with FAAD C2 efforts, but they may or may not provide funding for the efforts covered in this report.

D. Acquisition Strategy

The FAAD C2 acquisition strategy relies on evolutionary software development to rapidly meet the demands of air defense battle management/command, control, communications, computers, and intelligence (BM/C4I) requirements, and to keep pace with automated information technologies. The concept of evolutionary software development was followed in Blocks I-IV fieldings. FAAD C2 software provides engagement operational capabilities for the Army's Active and Reserve components.

FAAD C2 is a core component of C-RAM C2. As C-RAM C2 is developed, the interoperability of Air Defense functionality of FAAD C2 must be maintained.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 126 / *FAAD C2 ED*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration	Various	Various : Various	40.451	0.272	Dec 2012	0.271	Dec 2013	-		-		-	-	40.994	-
		Subtotal	40.451	0.272		0.271		-		-		-	-	40.994	-

Remarks

Basic Air Defense functionality will be maintained under Counter-Rockets, Artillery & Mortar (C-RAM) Development.

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development and Engineering	SS/CPIF	Northrop Grumman : Carson, CA	37.899	2.378	Feb 2013	2.374	Feb 2014	-		-		-	-	42.651	-
Software Engineering	Various	Various : Various	22.845	0.237	Dec 2012	0.236	Dec 2013	-		-		-	-	23.318	-
		Subtotal	60.744	2.615		2.610		-		-		-	-	65.969	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Certification/Testing	Various	YPG : Yuma, AZ	11.379	0.412	Feb 2013	0.411	Feb 2014	-		-		-	-	12.202	-
Interoperability	Various	CTSF : Ft Hood, TX	3.142	0.114	Dec 2012	0.114	Dec 2013	-		-		-	-	3.370	-
		Subtotal	14.521	0.526		0.525		-		-		-	-	15.572	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	115.716	3.413		3.406		-		-		-	-	122.535	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 126 / *FAAD C2 ED*

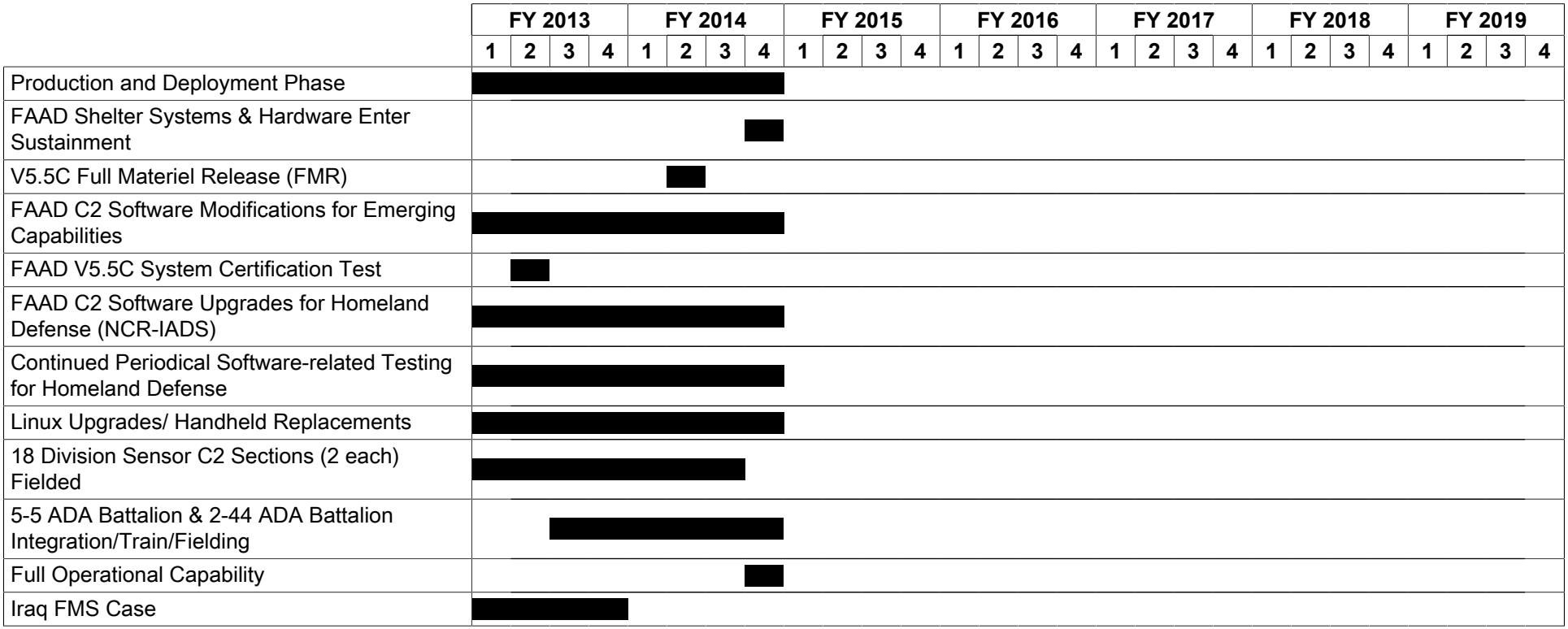

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 126 / *FAAD C2 ED*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Production and Deployment Phase	4	2001	4	2014
FAAD Shelter Systems & Hardware Enter Sustainment	4	2014	4	2014
V5.5C Full Materiel Release (FMR)	2	2014	2	2014
FAAD C2 Software Modifications for Emerging Capabilities	3	2006	4	2014
FAAD V5.5C System Certification Test	2	2013	2	2013
FAAD C2 Software Upgrades for Homeland Defense (NCR-IADS)	4	2007	4	2014
Continued Periodical Software-related Testing for Homeland Defense	4	2010	4	2014
Linux Upgrades/ Handheld Replacements	2	2010	4	2014
18 Division Sensor C2 Sections (2 each) Fielded	4	2009	3	2014
5-5 ADA Battalion & 2-44 ADA Battalion Integration/Train/Fielding	3	2013	4	2014
Full Operational Capability	4	2014	4	2014
Iraq FMS Case	1	2013	4	2013

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	Project (Number/Name) 146 / *Air & Msl Defense Planning Control Sys*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
146: *Air & Msl Defense Planning Control Sys*	-	13.875	13.303	13.539	-	13.539	15.871	16.082	16.227	16.408	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The Air and Missile Defense Planning and Control System (AMDPCS) is an Army Objective Force System that provides integration of Air and Missile Defense (AMD) operations at all echelons. AMDPCS systems are deployed with Air Defense Artillery (ADA) brigades, Army Air and Missile Defense Commands (AAMDCs), and Air Defense and Airspace Management (ADAM) Cells at the Brigade Combat Teams (BCT's), Multi Functional Support Brigades and Divisions/Corps. AMDPCS systems also provide air defense capabilities to Homeland Defense systems. ADAM Cells provide the Commander at BCTs, Brigades and Divisions with air defense situational awareness and airspace management capabilities. They also provide the interoperability link with Joint, multinational and coalition forces. AMDPCS components are vital in the transformation of ADA units and the activation of the Air & Missile Defense (AMD) Battalions. AMDPCS has three major components: (1) The Air and Missile Defense Workstation (AMDWS) is an automated defense and staff planning tool that displays the common tactical and operational 3-dimensional air picture. AMDWS is the air picture provider for the Army, producing an integrated and correlated air picture at all tactical levels and locations. AMDWS is also an integral component of Integrated Base Defense. AMDWS provides an interoperability link to multinational air defense forces IAW Annex C to a Joint US/NATO Air Defense Agreement; (2) The Air Defense System Integrator (ADSI) is a communications data link processor and display system that provides near-real time, 3-dimensional, joint airspace situational awareness and fire direction command and control for Air and Missile Defense forces; (3) The Army Air Defense shelter configurations use automated data processing equipment, tactical communications, Common Hardware Systems, standard vehicles and tactical power to provide AMD unit commanders and staffs with the capabilities to plan missions, direct forces, and control the airspace.

FY15 funds the development, software engineering, testing and certification of the AMDWS, ADSI, and sheltered subsystem software as described below.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: AMDWS Software Development	10.684	10.234	10.425
Articles:	-	-	-
Description: Continue AMDWS development and support of LandWarNet as well as various Common Operating Environments (COEs). Complete AMDWS software engineering and development consistent with Capability Set requirements, evolving the air and missile defense planning and control requirements to a net-centric environment, and fulfilling the air defense force operations capabilities identified in the AMD TRADOC capabilities requirement list. Virtualize AMDWS software development and rehost onto IBCS common hardware systems. Continue integration of the PATRIOT Tactical Planner (PTP), Theater High Altitude Air Defense (THAAD) Tactical Planner, Theater Battle Management Core Systems (TBMCS), and Command, Control, Battle			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 146 / *Air & Msl Defense Planning Control Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Management, and Communications (C2BMC) Planner. Support the evolving development of the Force Operations portion of the Integrated Air and Missile Defense (IAMD) System of Systems. ***FY 2013 Accomplishments:*** Completed AMDWS software engineering and delivered software consistent with COEv1 (was Capability set 13-14) standards including greater net-centricity and Fires Community of Excellence (FCoE) requirements. Supported interconnectivity with PATRIOT PDB-7 production. Finalized and updated interfaces with C2BMC, THAAD and PATRIOT. Developed proof of concept software and hardware to demonstrate the viability of full integration of AMDWS and IBCS into the COE Real Time/Safety Critical/ Embedded Computing Environment (RTSCE CE) for the IAMD Demo in 1Q FY14. Developed track display enhancements and 3-dimentional model views/modeling and simulation. Completed migration to the 64 bit Windows 7 Operating System. Began design and development efforts for COE v2 in the RTSCE CE and Command Post Computing Environment (CP CE). ***FY 2014 Plans:*** Continue AMDWS software engineering consistent with COE v2 requirements. Implement evolving COE requirements for CP CE and RTSCE CE. Continue to evolve interfaces with IAMD systems. Support the IAMD/ADAM Demo. Continue development and testing of interfaces with C2BMC Planner, THAAD Planner, and Patriot. Finalize NATO interface improvement. Complete track display enhancements, 3 dimensional model views, and commercial aircraft de-confliction functions. Continue modeling and simulation functions. Evaluate AMDWS graphics and system performance for the next generation of hardware platforms. ***FY 2015 Plans:*** Deliver and test software consistent with COE v2. Start design and engineer software consistent with COE v3 requirements. Implement evolving COE requirements for CP CE and RTSCE CE. Continue to evolve AMDWS in to the RTSCE CE Engagement Operations (EO) Real Time Interoperability Framework (RTIF). Update interface to the TBMCS follow-on system (C2IS-C2AOS).			
Title: ADSI Software Engineering and Development	0.694	0.675	0.677
Articles:	-	-	-
Description: Continue ADSI software engineering and development in software versions 15, including testing and certification of capabilities for TacView Situational Awareness, with air control support, scenario generation and 3-dimensional capability, Radio Frequency (RF) Link 16, Joint Range Extension Application Protocol (JREAP) A/B/C, Sat-J, Integrated Broadcast Service (IBS), External Time Reference (ETR), Situational Awareness Datalink (SADL), Link 11B, FAAD Data Link (FDL) and Serial J. The version 15 software upgrades the ADSI OS to use Windows 7 and Red Hat Linux. ***FY 2013 Accomplishments:*** Continued ADSI software engineering and development in software version 15. Conducted certification activities of version 15 software, including obtaining Authority to Operate (ATO) and Army Interoperability Certification (AIC). Continued development/			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 146 / *Air & Msl Defense Planning Control Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
refinement of software in response to anomalies discovered during testing. Implemented updates and refinement in accordance with MIL-STD updates. ***FY 2014 Plans:*** Support testing of version 15.1 software. Resolve anomalies identifies in software version 15.1. Conduct certification activities of version 15.1 software. Conduct ATO and AIC of version 15.1 software. Begin ADSI version 16 software development. Continue to implement updates in the ADSI baseline as a result of changes in interface systems and MIL-STDs. Continue development/ refinement of software in response to anomalies discovered during testing. ***FY 2015 Plans:*** Complete testing of version 15.1 software. Continue ADSI version 16 software development. Continue to implement updates in the ADSI baseline. Preliminary efforts in development of version 16.1 if necessary based on test and certification results.			
Title: Engineering, Development, Test and Evaluation	1.665	1.596	1.625
Articles:	-	-	-
Description: Continue engineering, development, test and evaluation of the AMDPCS shelter subsystem Objective configurations; continue evaluation and definitization of the AMDPCS tactical communications, data processing and vehicle/ shelter/power generation/environmental system block upgrade program for fielded systems. ***FY 2013 Accomplishments:*** Continued engineering, development, test and evaluation of the AMDPCS Family of Shelter (FoS) systems Objective configuration; Completed and received approval of the AMDPCS V5 Standardization Engineering Change Proposal (ECP). Continued evaluation of the AMDPCS tactical communications upgrades for fielded system. Supported virtualization of AMDPCS systems on other architectures. Incorporated some IBCS functions to support the 1QFY14 IBCS-ADAM Demo. ***FY 2014 Plans:*** Continue evaluation of AMDPCS FoS configurations. Assess evolving technologies for providing system power and environmental control. Evaluate communications, secure wireless, secure VTC and data processing technologies for potential system applications. Evaluate IBCS-ADAM capabilities during the 1Q FY14 demo. Develop interfaces for demonstrating IBCS-ADAM as a System Under Evaluation (SUE) at Network Integration Evaluation (NIE) 16.1. ***FY 2015 Plans:*** Continue evaluation of AMDPCS FoS configurations. Further assess and test power system technologies. Continue evaluation of emerging secure wireless, secure VTC and data processing technologies. Support IBCS-ADAM at NIE 16.1. Plan for IBCS-			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 146 / *Air & Msl Defense Planning Control Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
ADAM participation as a System Under Test (SIT) at NIE 16.2. Prepare ECP that allows IBCS functions to be integrated in the current ADAM Systems.			
Title: Software System Certification Testing, Accreditation, and Approval of Authority-to-Operate (ATO)	0.832	0.798	0.812
Articles:	-	-	-
Description: Continue software system certification testing, accreditation, and approval of ATO for the various software systems; continue Army and Joint integration and interoperability assessments. ***FY 2013 Accomplishments:*** Continued software system certification testing, accreditation, and approval of ATO for the various software systems; continued Army and Joint integration and interoperability assessments. ***FY 2014 Plans:*** Continue software system certification testing, accreditation, and approval of ATO for the various software systems; continue Army and Joint integration and interoperability assessments. ***FY 2015 Plans:*** Continue software system certification testing, accreditation, and approval of ATO for the various software systems; continue Army and Joint integration and interoperability assessments.			
Accomplishments/Planned Programs Subtotals	13.875	13.303	13.539

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• AD5070: *AD5070, AMDPCS*	53.059	13.090	27.374	-	27.374	28.410	32.727	32.980	33.325	Continuing	Continuing
• PE 0604741A, Proj 149: *PE 0604741A, Proj 149, Counter-Rockets, Artillery & Mortar*	25.588	1.575	2.367	-	2.367	4.377	3.550	3.651	3.757	Continuing	Continuing
• SSN H30503: *SSN H30503, Rocket, Artillery, Mortar (RAM) Warn (Parent is IFPC Family of Systems: BZ0501)*	27.345	11.929	27.652	-	27.652	43.061	29.061	-	-	-	139.048
• SSN H30504: *SSN H30504, C-RAM Enhancements (Parent is IFPC Family of Systems: BZ0501)*	-	43.425	40.644	-	40.644	18.122	16.182	-	-	-	118.373

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 146 / *Air & Msl Defense Planning Control Sys*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• PE 06043019A, Proj DU3: *PE 06043019A, Proj DU3, IFPC (FY12 PE0603305A IFPC II - Intercept)*	25.710	79.190	96.177	-	96.177	156.523	90.980	58.214	27.663	Continuing	Continuing
• PE 0605457A, Proj S40: *PE 0605457A, Proj S40, Army Integrated Air and Missile Defense (AIAMD)*	233.892	369.452	142.584	-	142.584	215.659	228.791	170.828	154.565	Continuing	Continuing
• SSN BZ5075: *SSN BZ5075, IAMD Battle Command System*	-	-	-	-	-	21.091	206.300	298.990	379.981	Continuing	Continuing
• PE 060482A, Proj E10: *PE 060482A, Proj E10, Sentinel*	3.734	1.548	5.224	-	5.224	12.213	11.389	10.906	12.132	Continuing	Continuing

Remarks

The above listed programs are interrelated with AMDPCS efforts, but they may or may not receive funding for the efforts covered in this report.

D. Acquisition Strategy

The acquisition strategy relies on non-development items (NDI) and evolutionary software development to rapidly meet the demands of air defense battle management command, control, communications, computers, and intelligence (BM/C4I) requirements and to keep pace with automated information technologies. The concept of evolutionary software development will be accomplished in a series of AMDWS and ADSI Block releases and upgrades. AMDPCS is being developed for both the Army's Active and Reserve components.

AMDWS is a prime component of C-RAM. It provides the Forward Operating Base (FOB) commander with clearance of fires display and enemy munitions flight paths.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	Project (Number/Name) 146 / *Air & Msl Defense Planning Control Sys*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration	Various	Various : Various	26.913	1.749	Dec 2012	1.684	Dec 2013	1.706	Dec 2014	-		1.706	Continuing	Continuing	-
		Subtotal	26.913	1.749		1.684		1.706		-		1.706	-	-	-

Remarks

Not Applicable

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AMDWS Software Development and Engineering	SS/CPFF	Northrop Grumman : Huntsville AL	105.510	10.568	Dec 2012	10.129	Dec 2013	10.317	Dec 2014	-		10.317	Continuing	Continuing	Continuing
ADSI Software Development and Engineering	SS/T&M	Ultra Electronics : Austin, TX	7.079	0.111	Mar 2013	0.105	Feb 2014	0.107	Feb 2015	-		0.107	Continuing	Continuing	Continuing
Developmental Engineering	Various	Various : Various	41.874	1.291	Dec 2012	1.237	Dec 2013	1.259	Dec 2014	-		1.259	Continuing	Continuing	Continuing
		Subtotal	154.463	11.970		11.471		11.683		-		11.683	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Certification/Testing	Various	JITC : Ft Huachuca, AZ	1.034	0.072	Feb 2013	0.068	Feb 2014	0.069	Feb 2015	-		0.069	Continuing	Continuing	Continuing
Interoperability Assessment	Various	CTSF : Ft Hood, TX	1.365	0.084	May 2013	0.080	May 2014	0.081	May 2015	-		0.081	Continuing	Continuing	Continuing
		Subtotal	2.399	0.156		0.148		0.150		-		0.150	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	Project (Number/Name) 146 / *Air & Msl Defense Planning Control Sys*	

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	183.775	13.875		13.303		13.539		-		13.539	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 146 / *Air & Msl Defense Planning Control Sys*

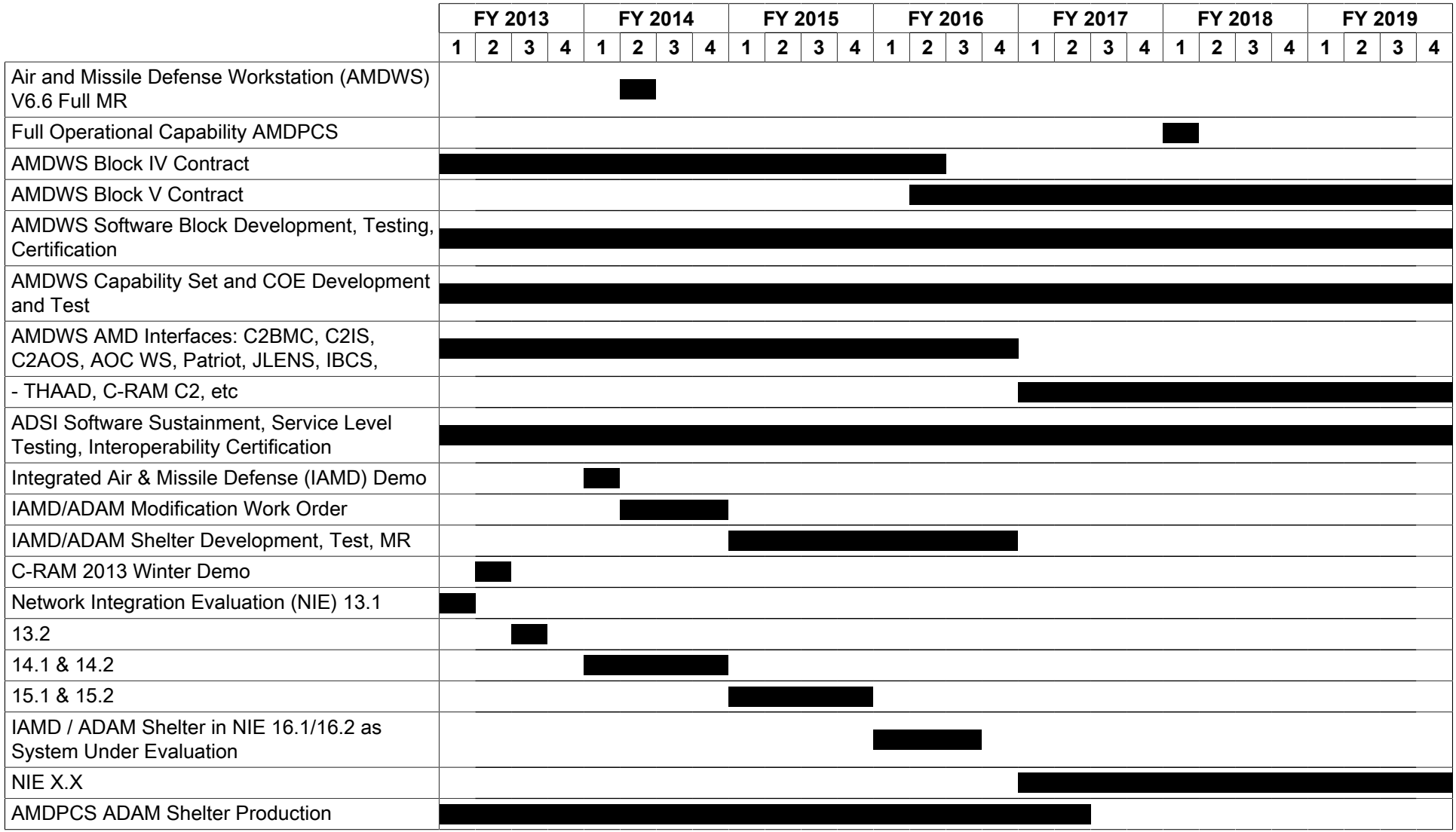

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 146 / *Air & Msl Defense Planning Control Sys*

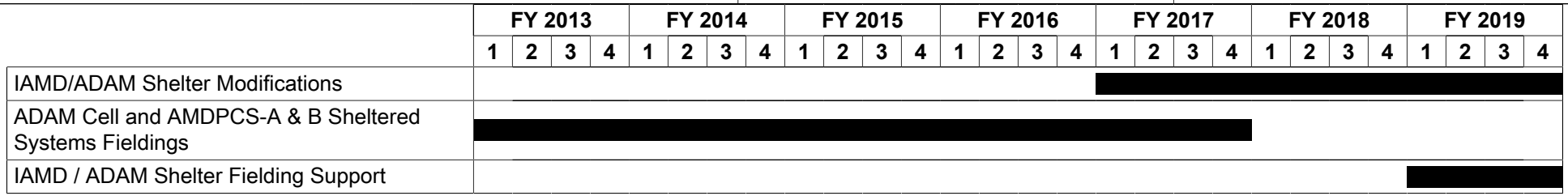

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 146 / *Air & Msl Defense Planning Control Sys*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Air and Missile Defense Workstation (AMDWS) V6.6 Full MR	2	2014	2	2014
Full Operational Capability AMDPCS	1	2018	1	2018
AMDWS Block IV Contract	2	2011	2	2016
AMDWS Block V Contract	2	2016	2	2021
AMDWS Software Block Development, Testing, Certification	3	2007	4	2021
AMDWS Capability Set and COE Development and Test	1	2013	1	2020
AMDWS AMD Interfaces: C2BMC, C2IS, C2AOS, AOC WS, Patriot, JLENS, IBCS,	4	2012	4	2016
- THAAD, C-RAM C2, etc	1	2017	4	2021
ADSI Software Sustainment, Service Level Testing, Interoperability Certification	1	2005	4	2021
Integrated Air & Missile Defense (IAMD) Demo	1	2014	1	2014
IAMD/ADAM Modification Work Order	2	2014	4	2014
IAMD/ADAM Shelter Development, Test, MR	1	2015	4	2016
C-RAM 2013 Winter Demo	2	2013	2	2013
Network Integration Evaluation (NIE) 13.1	1	2013	1	2013
13.2	3	2013	3	2013
14.1 & 14.2	1	2014	4	2014
15.1 & 15.2	1	2015	4	2015
IAMD / ADAM Shelter in NIE 16.1/16.2 as System Under Evaluation	1	2016	3	2016
NIE X.X	1	2017	4	2019
AMDPCS ADAM Shelter Production	2	2001	2	2017
IAMD/ADAM Shelter Modifications	1	2017	4	2019
ADAM Cell and AMDPCS-A & B Sheltered Systems Fieldings	2	2001	4	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 146 / *Air & Msl Defense Planning Control Sys*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
IAMD / ADAM Shelter Fielding Support	1	2019	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*				Project (Number/Name) 149 / *Counter-Rockets, Artillery & Mortar*			
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
149: *Counter-Rockets, Artillery & Mortar*	-	25.588	1.575	2.367	-	2.367	4.377	3.550	3.651	3.757	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

Counter-Rocket, Artillery, Mortar (C-RAM) is an evolutionary, non-developmental program initiated by the Army Chief of Staff in response to the indirect fire (IDF) threat and a validated Operational Needs Statement (ONS). The primary mission of the C-RAM program is to develop, procure, field, and maintain a system-of-systems (SoS) that can detect RAM launches; provide localized warning to the defended area, with sufficient time for personnel to take appropriate action; intercept rounds in flight, thus preventing damage to ground forces or facilities; and enhance response to and defeat of enemy forces. The C-RAM capability is comprised of a combination of multi-service fielded and non-developmental item (NDI) sensors, command and control (C2) systems, warning systems, and a modified U.S. Navy intercept system (Land-based Phalanx Weapon System (LPWS)), with a commercial off-the-shelf (COTS) wireless local area network. The C-RAM SoS capability is currently deployed at multiple sites in Afghanistan, providing correlated air and ground pictures, linking units to the Army Mission Command and the Joint Defense Network, and using various forms of communications to provide situational awareness and exchange of timely and accurate information in order to synchronize and optimize automated Shape, Sense, Warn, Intercept, Respond, and Protect decisions.

The deployment of the C-RAM SoS was accomplished through an incremental acquisition process driven by urgent operational needs, theater priorities, and emerging capability requirements to provide a counter-RAM capability to combat forces. The C-RAM SoS approach was initially validated by a Proof of Principle demonstration in December 2004 and has undergone more than 25 Army Test and Evaluation Command (ATEC)-supported operational assessments to incorporate multiple improvements in response to changes in threat tactics and lessons learned. The C-RAM Sense and Warn (S&W) and Intercept capabilities are currently deployed to locations in Afghanistan in support of Operation Enduring Freedom (OEF). In response to a theater requirement tasked to the Rapid Equipping Force (REF), C-RAM installed Mass Notification Systems (MNS) at multiple OEF sites to support base-wide alerts and announcements. Continuing C-RAM SoS improvement efforts, required to meet emerging theater requirements, include C2 software upgrades as well as integration and deployment of Ku band Multi-Function Radio Frequency System (MFRFS) radars for an enhanced detection capability against stressing threats. Base RDTE funding for FY 2015 and beyond supports maintenance of C2 basic Air Defense functionality. Support of the existing C-RAM SoS capability deployed in theater has been through the Overseas Contingency Operations (OCO) process.

Near-term directed enhancements to the C-RAM SoS capability include use of Army tactical communications rather than commercial systems; integration of Warn functionality into the C2 workstation to reduce complexity and footprint; integration with Unmanned Aircraft Systems (UAS) Universal Ground Control Station (UGCS) for enhanced situational awareness, combat identification, and response options; and dynamic clearance of unplanned fires (DCUF) in conjunction with the Advanced Field Artillery Tactical Data System (AFATDS) for rapid and enhanced response.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 149 / *Counter-Rockets, Artillery & Mortar*

Multiple acquisition efforts are associated with the C-RAM program. The C-RAM Program Directorate currently has only a single RDTE budget line for C-RAM (PE 654741/149); therefore, funding for all C-RAM efforts is applied to this budget line, but all expenditures are tracked by individual effort.

Existing C-RAM Intercept assets (i.e., LPWS) have undergone reset and are currently being fielded to the first of two Indirect Fire Protection Capability (IFPC)/Avenger composite Battalions (5-5 Air Defense Artillery). The LPWS has completed a Limited User Test (LUT). The C-RAM Intercept Capability Production Document (CPD) was approved on 22 Aug 2013, and the Army Acquisition Executive (AAE) approved an Acquisition Decision Memorandum (ADM) on 23 Aug 2013, authorizing C-RAM Intercept's entry into the acquisition management system as an Acquisition Category (ACAT) III program under the management of the Program Executive Officer, Missiles and Space. C-RAM Intercept is entering the acquisition management system at post-Milestone C. Materiel Release is projected for 1QFY15.

The C-RAM Program Directorate was the Materiel Developer for the Accelerated Improved Intercept Initiative (AI3), a rapid development effort to provide an Intercept capability to defeat stressing threats, which culminated in a sucessful Live Fire test in 4QFY13. Funding for AI3 development and test efforts was prior year OCO.

The Rocket, Artillery, Mortar (RAM) Warn program is a horizontal technology insertion, using current C-RAM warning equipment, to provide early, localized warning to all Maneuver Brigade Combat Teams (BCT). Prior year C-RAM RDTE funding was shared to conduct RAM Warn test activities in support of the Milestone C decision.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: C-RAM C2 Software Development and Enhancements	9.254	1.575	2.367
Articles:	-	-	-
Description: Software development effort based on changes in threat, integration of emerging requirements from external PMs (e.g., upgraded sensors), technology insertions (e.g., new missile technologies), and interoperability requirements (e.g., IAMD, comms, and HBSS requirements), to ensure that enhancements to C-RAM C2 software do not negatively impact the performance of the other C-RAM pillars (Shape, Sense, Warn, Intercept, Respond, Protect).			
FY 2013 Accomplishments: C-RAM C2 software development contract efforts.			
FY 2014 Plans: C-RAM C2 software development contract efforts.			
FY 2015 Plans: C-RAM C2 software development contract efforts.			
Title: C2 & Warn Improvements - Use of Tactical Radio and Integration of Warn into C2 Workstation	9.384	-	-
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 149 / *Counter-Rockets, Artillery & Mortar*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Replaces commercial off-the-shelf (COTS) radios that link C-RAM C2 to sensors with Joint Tactical Radio System (JTRS) when available and replaces current Warn radios with military spectrum radios, providing enhanced reliability, sustainability, and supportability. Integrates/tests Warn function into current C-RAM C2, eliminating a COTS box. ***FY 2013 Accomplishments:*** C2 & Warn Improvements - Use of Tactical Radio and Integration of Warn into C2 Workstation			
Title: UAS Universal Ground Control Station Integration ***Articles:*** ***Description:*** Integrates C-RAM C2 with the Army UAS Universal Ground Control Station, enabling direct tasking of Shadow, Hunter, and Warrior UAS to the indirect fire point of origin. ***FY 2013 Accomplishments:*** UAS Universal Ground Control Station Integration	3.475 -	- -	- -
Title: Dynamic Clearance of Fires ***Articles:*** ***Description:*** Provides an automated unplanned fires clearance capability, enabling the safe engagement of targets that would not be possible with current, manual procedures. Provides more rapid clearance of airspace and more effective engagements of unplanned targets. ***FY 2013 Accomplishments:*** Dynamic Clearance of Fires	3.475 -	- -	- -
Accomplishments/Planned Programs Subtotals	25.588	1.575	2.367

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• SSN H30503: *SSN H30503, Rocket, Artillery, Mortar (RAM) Warn (Parent is IFPC Family of Systems: BZ0501)*	27.345	11.929	27.652	-	27.652	43.061	29.061	-	-	-	139.048

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 149 / *Counter-Rockets, Artillery & Mortar*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• SSN H30504: *SSN H30504, C-RAM Enhancements (Parent is IFPC Family of Systems: BZ0501)*	-	43.425	40.644	-	40.644	18.122	16.182	-	-	-	118.373
• PE 0604741A, Proj 146: *PE 0604741A, Proj 146, Air & Missile Defense Planning and Control System*	13.875	13.303	13.539	-	13.539	15.871	16.082	16.227	16.408	Continuing	Continuing
• SSN AD5070: *SSN 5070, Air & Missile Defense Planning and Control System*	53.059	13.090	27.374	-	27.374	28.410	32.727	32.980	33.325	Continuing	Continuing
• PE 0604319A, Proj DU3: *PE 0604319A, Proj DU3, IFPC2 (FY12 PE0603305A IFPC II - Intercept)*	25.710	79.190	96.177	-	96.177	156.523	90.980	58.214	27.663	Continuing	Continuing
• PE 0605457A, Proj S40: *PE 0605457A, Proj S40, Army Integrated Air and Missile Defense (AIAMD)*	233.892	369.452	142.584	-	142.584	215.659	228.791	170.828	154.565	Continuing	Continuing
• SSN BZ5075: *SSN BZ5075, IAMD Battle Command System*	-	-	-	-	-	21.091	206.300	298.990	379.981	Continuing	Continuing
• PE 060482A, Proj E10: *PE 060482A, Proj E10, Sentinel*	-	-	5.224	-	5.224	12.213	11.389	10.906	12.132	Continuing	Continuing

Remarks

The above listed programs are interrelated with C-RAM efforts, but they may or may not provide funding for the efforts covered in this report.

D. Acquisition Strategy

The C-RAM program is following an evolutionary acquisition strategy for rapid fielding of mature technology to the user. The objective of the strategy is to balance needs, available technology, and resources to quickly provide a robust capability to engage RAM threats. Like RAM Warn, the C-RAM Intercept (i.e., LPWS) capability has evolved from the C-RAM SoS efforts. Both of these programs are currently fielding equipment to units.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 149 / *Counter-Rockets, Artillery & Mortar*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration	Various	Various : Various	19.445	1.427		0.140		0.211		-		0.211	Continuing	Continuing	Continuing
		Subtotal	19.445	1.427		0.140		0.211		-		0.211	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Northrop Grumman	C/CPIF	C-RAM C2 Development and Enhancements : Carson, CA	63.147	21.650	Aug 2013	1.435	Mar 2014	2.156		-		2.156	Continuing	Continuing	Continuing
Raytheon Company	C/CPIF	Improved Interceptor : Tucson, AZ	77.675	-		-		-		-		-	-	77.675	-
		Subtotal	140.822	21.650		1.435		2.156		-		2.156	-	-	-

Remarks

FY13 allocation to the Raytheon Company for the Improved Interceptor did not take place due to the Army's termination of the Interceptor Enhancements effort and the subsequent Congressional adjustment in the amount of -$24.925 million.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
OGA	Various	TBD : TBD	17.640	2.511		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	17.640	2.511		-		-		-		-	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	177.907	25.588		1.575		2.367		-		2.367	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	Project (Number/Name) 149 / *Counter-Rockets, Artillery & Mortar*	

	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 149 / *Counter-Rockets, Artillery & Mortar*

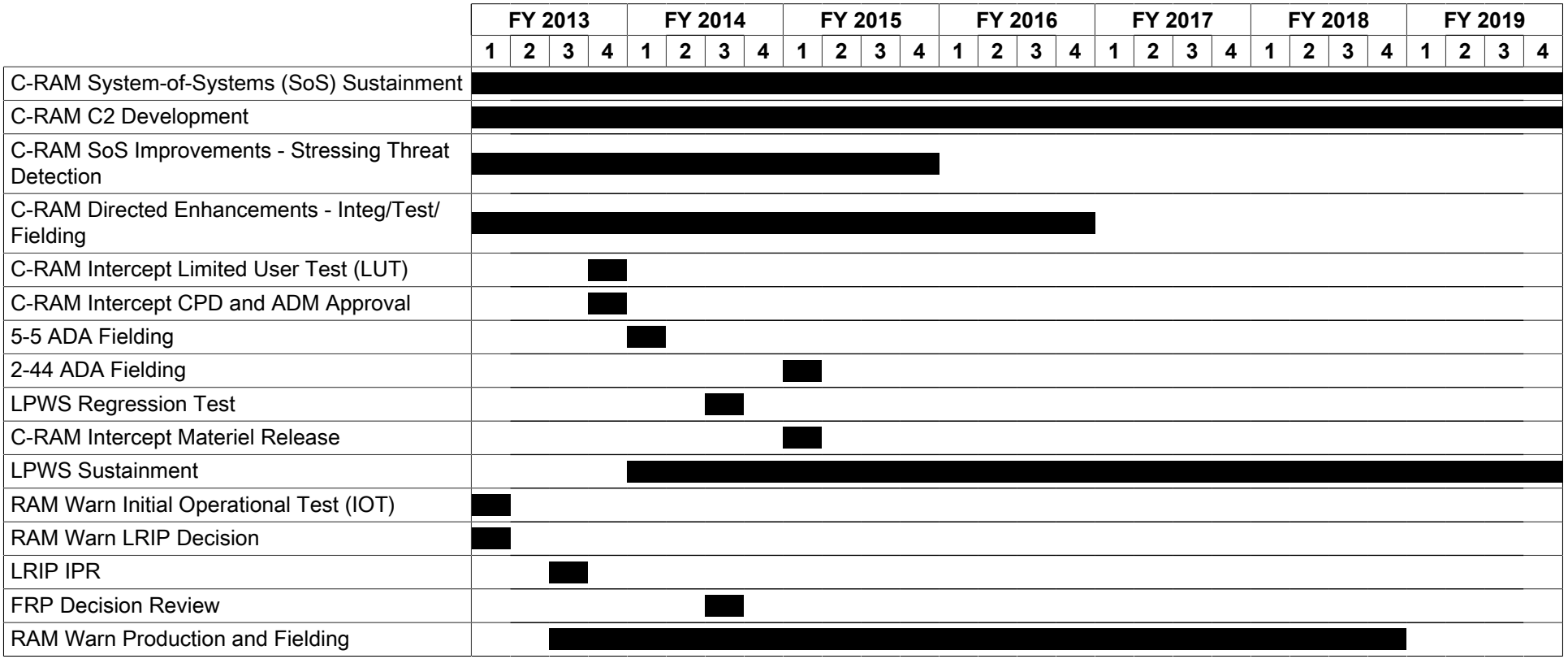

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604741A / *Air Defense Command, Control and Intelligence - Eng Dev*	**Project (Number/Name)** 149 / *Counter-Rockets, Artillery & Mortar*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
C-RAM System-of-Systems (SoS) Sustainment	1	2007	4	2019
C-RAM C2 Development	1	2013	4	2019
C-RAM SoS Improvements - Stressing Threat Detection	1	2012	4	2015
C-RAM Directed Enhancements - Integ/Test/Fielding	1	2012	4	2016
C-RAM Intercept Limited User Test (LUT)	4	2013	4	2013
C-RAM Intercept CPD and ADM Approval	4	2013	4	2013
5-5 ADA Fielding	1	2014	1	2014
2-44 ADA Fielding	1	2015	1	2015
LPWS Regression Test	3	2014	3	2014
C-RAM Intercept Materiel Release	1	2015	1	2015
LPWS Sustainment	1	2014	4	2019
RAM Warn Initial Operational Test (IOT)	1	2013	1	2013
RAM Warn LRIP Decision	1	2013	1	2013
LRIP IPR	3	2013	3	2013
FRP Decision Review	3	2014	3	2014
RAM Warn Production and Fielding	3	2013	4	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604742A *I CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	25.828	17.004	4.394	-	4.394	22.097	17.963	13.049	13.564	Continuing	Continuing
361: *Intelligence Simulation Systems (MIP)*	-	7.294	1.577	0.519	-	0.519	2.680	2.046	0.721	0.736	Continuing	Continuing
362: *Jnt Land Component Constructive Trng*	-	18.534	15.427	3.875	-	3.875	19.417	15.917	12.328	12.828	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

Funding realigned for higher Army priorities.

A. Mission Description and Budget Item Justification

This program element funds the development of constructive and wargame simulations used to realistically train commanders and their battle staffs on today's complex battlefield conditions. Project 361 funds the development of the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) that provides Warfighting Commanders at all echelons the ability to train with Intelligence, Surveillance, and Reconnaissance (ISR) products based on realistic ISR assets, people (including the maneuver commander, G-2, G-3, collection manager, analyst/operator) and processes. IEWTPT provides embedded training capability for Future Army ISR systems. IEWTPT will interface/stimulate ISR systems including Tactical Unmanned Aerial Vehicle (TUAV), Joint Surveillance Target Attack Radar System-Common Ground Station (JSTARS-CGS), Tactical Exploitation System/Distributed Tactical Exploitation System (TES/DTES), Guardrail, Counter Intelligence/Human Intelligence Management Systems (CHIMS), Prophet and Distributed Common Ground Station-Army (DCGS-A). IEWTPT is the only Army Simulation System supporting ISR training from the Warfighter to the Military ISR Analyst/System Operator. Project 362, Joint Land Component Constructive Training Capability (JLCCTC), develops the Army's premier wargame simulation for training leaders and Battle Staffs at Brigade, Division, Corps, and echelons above Corps. JLCCTC will provide functionality not currently available (digital, stability, support and information operations), link to unit organizational Mission Command Systems, improve exercise generation and after-action reporting. WARSIM will interoperate with One Semi Automated Forces (OneSAF) and other simulations as an integral part of an Army simulation toolkit, so that a warfighter training exercise can represent in simulation all Army echelons and can also be represented in a Joint environment. JLCCTC pulls together current constructive simulation systems and future constructive simulations and uses a comprehensive strategy to ensure interoperability among all of those systems. This strategy will allow JLCCTC to meet current and future user needs. JLCCTC leverages the best pieces of current systems to meet current training needs and evolves to meet the training needs of the future.

FY 2015 funding continues product improvements with annual releases of the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) and continues development of Joint Land Component Constructive Training Capability (JLCCTC).

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604742A / *CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	28.937	17.013	19.203	-	19.203
Current President's Budget	25.828	17.004	4.394	-	4.394
Total Adjustments	-3.109	-0.009	-14.809	-	-14.809
• Congressional General Reductions	-0.039	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.658	-			
• Adjustments to Budget Years	-0.009	-0.009	-14.809	-	-14.809
• Sequester Adjustments	-2.403	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604742A / *CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT*				Project (Number/Name) 361 / *Intelligence Simulation Systems (MIP)*			
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
361: *Intelligence Simulation Systems (MIP)*	-	7.294	1.577	0.519	-	0.519	2.680	2.046	0.721	0.736	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The Intelligence & Electronic Warfare Tactical Proficiency Trainer (IEWTPT), a Non-System Training Device (NTSD), supports training intelligence soldiers by stimulating Military Intelligence (MI) organic or surrogate equipment. It enables sustainment of critical individual and collective tasks/skills and is the core of the United States Army Intelligence Center of Excellence (USAICoEs) MI holistic training strategy and includes both stand-alone and network enabled training capabilities. IEWTPT provides a realistic Intelligence target environment for Multi-Intelligence disciplines (Signals Intelligence (SIGINT), Imagery Intelligence (IMINT), Human Intelligence (HUMINT), Counterintelligence (CI), Geospatial Intelligence (GEOINT)) and must stimulate multiple systems such as: PROPHET, Distributed Common Ground Station-Army (DCGS-A), Joint Surveillance Target Attack Radar System-Common Ground Station (JSTARS-CGS), Tactical Unmanned Aerial Vehicle (TUAV), Tactical Exploitation System/Distributed Tactical Exploitation System (TES/DTES). IEWTPT provides static and dynamic training events (interactive environment for individual, collective, and Live, Virtual, and Constructive integrated mission rehearsals/exercises) in an integrated, playback, and stand alone mode. IEWTPT is composed of four components: Constructive Simulation, Technical Control Cell (TCC), Target Signature Arrays (TSA)/Simulation Interface, and the HUMINT Control Cell (HCC). The IEWTPT TCC provides critical Intel enhancements to a constructive simulation to stimulate go-to-war or surrogate Intelligence, Surveillance and Reconnaissance (ISR) systems where system operators/analysts are able to exploit exercise intelligence data during training, just as they would in a "real world" operation.

FY 2015 funding supports the government program office manning for on-going program activities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: IEWTPT development, integration and support.	6.200	-	-
Articles:	-	-	-
Description: Continue IEWTPT development, integration and support to the user community.			
FY 2013 Accomplishments: Supported simulation interface design for both HCC and TCC; evolved the design and testing of TCC training interfaces for SIGINT collection training capabilities by incorporating sensor technology into the simulation environment. Develop/design, test, and integrate existing SIGINT analytical (TS/SCI) training capabilities (Near-Time Notional Gateway); developed and provided updates to existing HUMINT scenarios and evolved counter Intel capabilities for site exploitation. Refined existing SIGINT (Near-Time Notional Gateway) TS/SCI training capabilities; Evolved AVATAR technology to increase fidelity and human realism; completed web-based HCC integration to maximize training availability across the force; continues constructive simulation,			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604742A / *CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 361 / *Intelligence Simulation Systems (MIP)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
testing and interoperability. Started Live, Virtual, Constructive, Integrated Training Environment (LVC-ITE) task analysis. Evolved GEOINT stimulation tools with advancing capabilities; refine and advance Full Motion Video and Infra Red capabilities. Continued the development of tool suite components (SIGACT Generator, SIGINT Exercise Control and Intel Low Overhead Driver (iLOD)); implemented Better Buying Power initiatives by reductions in baseline hardware footprint.			
Title: Government Program Management for the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT). ***Articles:*** ***Description:*** Government Program Management for the IEWTPT program. ***FY 2013 Accomplishments:*** Provided program oversight and lifecycle management planning, and Combat Developer Support. It also provided management, configuration control, and oversight of interfaces with complementary intelligence programs and continuous participation in planning, integration, and testing of IEWTPT components in a federation (family of systems) environment. It also covers market surveys, technology insertion studies and reviews of deliverables needed to be ready for contract renewal requirements for the program. It also includes the analysis and implementation of recurring Information Assurance (IA) directives. ***FY 2014 Plans:*** Provides for the continuation of program oversight, lifecycle management planning, and Combat Developer support. Enables the configuration control and oversight of interfaces with complementary programs, coordination of integration activities with external programs and continuous participation in planning, integration, and testing of IEWTPT components in a federation (family of systems) environment. Covers market surveys, technology insertion studies and reviews of deliverables needed to be ready for contract activities supporting the program. ***FY 2015 Plans:*** Provides for the continuation of program oversight, lifecycle management planning, and Combat Developer support. Enables the configuration control and oversight of interfaces with complementary programs. Allows continuous participation in planning, integration, and testing of IEWTPT components in a federation (family of systems) environment. Covers market surveys, technology insertion studies and reviews of deliverables needed to be ready for contract activities supporting the program	1.094 -	1.577 -	0.519 -
Accomplishments/Planned Programs Subtotals	7.294	1.577	0.519

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604742A / *CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 361 / *Intelligence Simulation Systems (MIP)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Appropriation NA0102: *Appropriation NA0102; Training Devices, Nonsystem, Intelligence*	-	-	2.617	-	2.617	4.128	3.624	2.974	4.838	Continuing	Continuing
• TBWG, OMA 121: *TBWG, OMA 121*	0.219	-	0.234	-	0.234	0.330	0.385	0.413	0.456	Continuing	Continuing

Remarks

D. Acquisition Strategy

A future IEWTPT system contract, will continue the development, testing, production, integration, fielding, training, hardware/software updates, and exercise support of the IEWTPT system. Software version releases are planned, as well as engineering for product improvement maintenance releases.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604742A / *CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT*	Project (Number/Name) 361 / *Intelligence Simulation Systems (MIP)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	Various	PEO STRI : Orlando, FL	6.251	1.094	Oct 2012	1.577	Dec 2013	0.519	Oct 2014	-		0.519	Continuing	Continuing	Continuing
		Subtotal	6.251	1.094		1.577		0.519		-		0.519	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
HCC Technology	C/CPFF	TBD : TBD	5.177	1.423	Nov 2012	-		-		-		-	Continuing	Continuing	Continuing
Eng & Manufacturing Dev.	C/CPFF	TBD : TBD	46.728	4.777	Nov 2012	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	51.905	6.200		-		-		-		-	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering & Technical Support	SS/CPFF	TBD : TBD	2.743	-		-		-		-		-	-	2.743	2.743
		Subtotal	2.743	-		-		-		-		-	-	2.743	2.743

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TEMP Support	Various	Multiple : Various	0.319	-		-		-		-		-	-	0.319	0.319
Test Engineering Support	Various	Multiple : Various	1.313	-		-		-		-		-	-	1.313	1.313
		Subtotal	1.632	-		-		-		-		-	-	1.632	1.632

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604742A / *CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT*	Project (Number/Name) 361 / *Intelligence Simulation Systems (MIP)*	

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	62.531	7.294		1.577		0.519		-		0.519	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604742A / *CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 361 / *Intelligence Simulation Systems (MIP)*

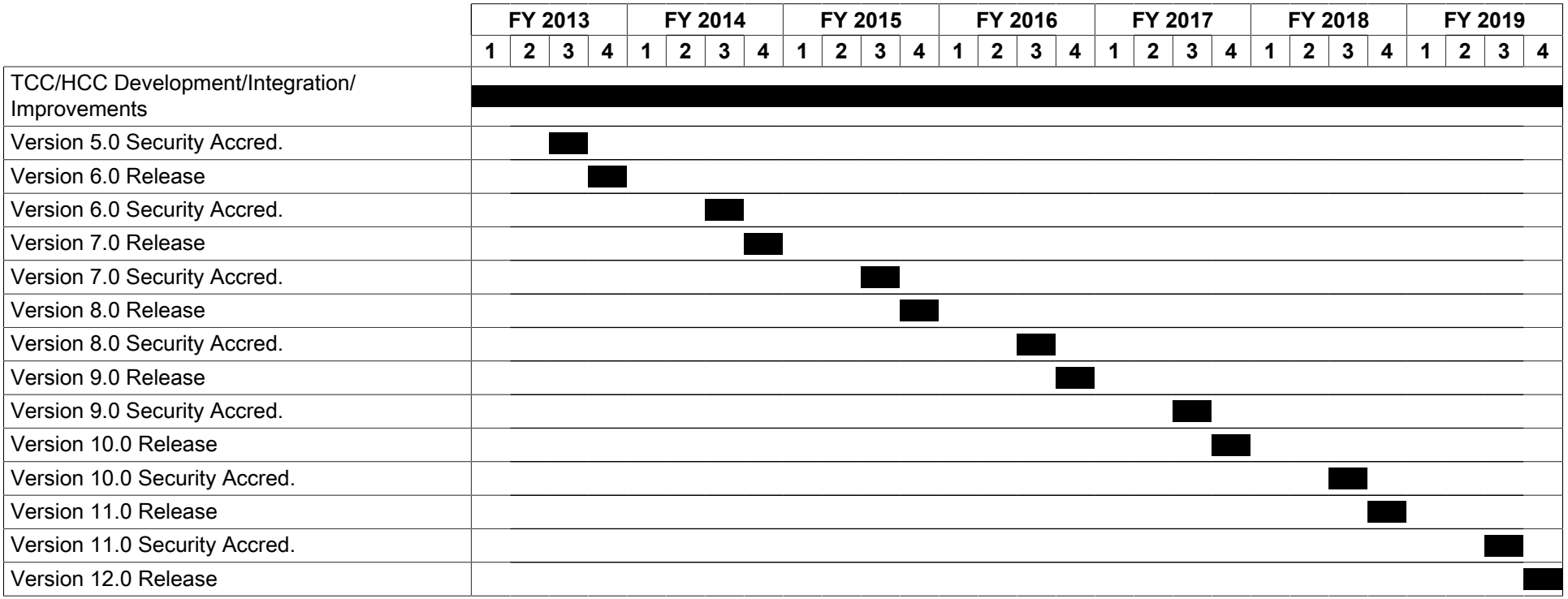

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604742A / *CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 361 / *Intelligence Simulation Systems (MIP)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
TCC/HCC Development/Integration/Improvements	4	2007	4	2019
Version 5.0 Security Accred.	3	2013	3	2013
Version 6.0 Release	4	2013	4	2013
Version 6.0 Security Accred.	3	2014	3	2014
Version 7.0 Release	4	2014	4	2014
Version 7.0 Security Accred.	3	2015	3	2015
Version 8.0 Release	4	2015	4	2015
Version 8.0 Security Accred.	3	2016	3	2016
Version 9.0 Release	4	2016	4	2016
Version 9.0 Security Accred.	3	2017	3	2017
Version 10.0 Release	4	2017	4	2017
Version 10.0 Security Accred.	3	2018	3	2018
Version 11.0 Release	4	2018	4	2018
Version 11.0 Security Accred.	3	2019	3	2019
Version 12.0 Release	4	2019	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
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COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
362: *Jnt Land Component Constructive Trng*	-	18.534	15.427	3.875	-	3.875	19.417	15.917	12.328	12.828	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This Project funds the development of the Joint Land Component Constructive Training Capability (JLCCTC), the Army's premier wargaming simulations for training leaders and Battle Staffs from Battalion through echelons above Corps. JLCCTC pulls together current constructive simulation systems and future constructive simulations and uses a comprehensive strategy to ensure interoperability among all of those systems. JLCCTC will provide functionality not currently available (digital operations, stability and support operations, and information operations), link to organic Mission Command equipment, and improve exercise generation and after-action reporting.

FY15 funding supports the government program office manning for on-going program activities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Engineering and Manufacturing Development (EMD) phase contract activity for JLCCTC Software Models.	1.889	1.809	-
Articles:	-	-	-
Description: Continue EMD phase contract activities for JLCCTC Software Models.			
FY 2013 Accomplishments: Verified and validated JLCCTC software models			
FY 2014 Plans: Verify and validate JLCCTC software models			
Title: Engineering and Manufacturing Development (EMD) phase contract for the Integration of JLCCTC.	3.621	2.653	-
Articles:	-	-	-
Description: Continue EMD phase contract activities for the Integration of JLCCTC.			
FY 2013 Accomplishments: Continued integration of JLCCTC components for interoperability (UCA).			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continue integration of JLCCTC components for interoperability.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for User Interface Enhancements. ***Articles:*** ***Description:*** Continue EMD phase contract activities for User Interface Enhancements. ***FY 2013 Accomplishments:*** Developed and integrated user interface enhancements for Army training applications. ***FY 2014 Plans:*** Develop and integrate user interface enhancements for Army training applications.	4.690 -	4.028 -	- -
Title: Government System Test and Evaluation. ***Articles:*** ***Description:*** Government System Test and Evaluation for the Joint Land Component Constructive Training Capability (JLCCTC). ***FY 2013 Accomplishments:*** Developed and evaluated system performance and conducted system test events. ***FY 2014 Plans:*** Develop and evaluate system performance and conduct system test events.	2.804 -	1.575 -	- -
Title: Government Program Management for the Joint Land Component Contsructive Training Capability (JLCCTC) Program. ***Articles:*** ***Description:*** Government Program Management for the Joint Land Component Contsructive Training Capability (JLCCTC) Program. ***FY 2013 Accomplishments:*** Program Management for the Joint Land Component Contsructive Training Capability (JLCCTC) Program. ***FY 2014 Plans:*** Program Management for the Joint Land Component Contsructive Training Capability (JLCCTC) Program. ***FY 2015 Plans:*** Program Management for the Joint Land Component Contsructive Training Capability (JLCCTC) Program.	5.530 -	5.362 -	3.875 -
Accomplishments/Planned Programs Subtotals	18.534	15.427	3.875

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• NSTD Command & Control: *OPA, NA0103*	11.545	18.067	26.137	-	26.137	40.957	39.819	50.144	51.168	Continuing	Continuing
• TBWG: *OMA, 121*	4.532	7.237	7.284	-	7.284	5.931	6.097	7.451	8.962	Continuing	Continuing

Remarks

D. Acquisition Strategy

New JLCCTC Indefinite Delivery/Indefinite Quantity (ID/IQ) contract was awarded on 27 March 2013. This contract has a period of performance of 5 years with a total amount not to exceed $146M.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604742A / *CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT*	Project (Number/Name) 362 / *Jnt Land Component Constructive Trng*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Various	PEO STRI : Orlando, FL	40.675	5.530	Dec 2012	5.362		3.875	Mar 2015	-		3.875	Continuing	Continuing	Continuing
		Subtotal	40.675	5.530		5.362		3.875		-		3.875	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integration of JLCCTC	SS/FFP	Various : Various	54.016	1.416	Dec 2012	1.419		-		-		-	Continuing	Continuing	Continuing
MRF-W Development of Army Training System	C/CPFF	Various : Various	0.000	6.134	Dec 2012	4.066		-		-		-	Continuing	Continuing	Continuing
Development of logistics model	Various	Tapestry : San Diego, CA	20.615	-		-		-		-		-	-	20.615	20.615
WARSIM Development of Army Training System	SS/CPFF	Lockheed Martin Info Systems : Orlando, FL	122.061	-		-		-		-		-	-	122.061	122.570
		Subtotal	196.692	7.550		5.485		-		-		-	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering & Tech Spt	Various	Various : Various	8.570	0.207	Dec 2012	1.335		-		-		-	Continuing	Continuing	Continuing
		Subtotal	8.570	0.207		1.335		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Evaluation and Test	Various	Various : Various	13.125	3.278	Dec 2012	3.245		-		-		-	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
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Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Verification, Validation and Accreditation	Various	Various : Various	11.275	1.969	Dec 2012	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	24.400	5.247		3.245		-		-		-	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	270.337	18.534		15.427		3.875		-		3.875	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
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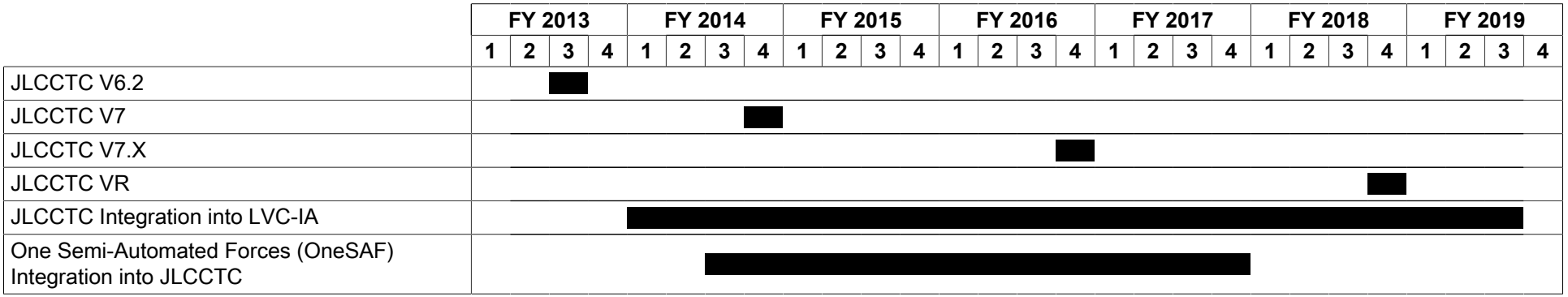

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
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Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
JLCCTC V6.2	3	2013	3	2013
JLCCTC V7	4	2014	4	2014
JLCCTC V7.X	4	2016	4	2016
JLCCTC VR	4	2018	4	2018
JLCCTC Integration into LVC-IA	1	2014	3	2019
One Semi-Automated Forces (OneSAF) Integration into JLCCTC	3	2014	4	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604746A *I Automatic Test Equipment Development*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	10.307	6.697	11.084	-	11.084	14.182	9.880	10.008	10.299	Continuing	Continuing
L59: *Diagnost/Expert Sys*	-	7.809	4.680	7.075	-	7.075	9.889	6.142	5.863	5.934	Continuing	Continuing
L65: *Test Equipment Development*	-	2.498	2.017	4.009	-	4.009	4.293	3.738	4.145	4.365	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

FY 2015, $3.294 million reduction to support higher priority projects

A. Mission Description and Budget Item Justification

This program element (PE) provides for development and testing of general-purpose test equipment, state-of-the-art diagnostics and prognostics technologies, and software and systems to support the increasingly complex electronic components of the Army's new and upgraded weapon systems. It focuses on implementation of commercial test and diagnostic technologies across multiple weapon platforms to minimize the cost of troubleshooting and maintenance of Army equipment in the field.

Modular, reconfigurable automatic and semi-automatic systems are being developed under this program to satisfy weapon system test and diagnostics requirements. The Next Generation Automatic Test System (NGATS), currently under development, provides state-of-the-art test and diagnostic capabilities to support current and future weapon systems. It is the platform for transitioning Agile Rapid Global Combat Support System (ARGCS) technologies into the Army weapon system support structure, and it will replace several aging automatic test systems (ATS) that are becoming prohibitively expensive to operate and maintain.

This PE also provides for continued development and improvement of general-purpose test equipment and calibration standards with emphasis on the incorporation of digital electronics and tailoring of configurations to improve deployability, mobility and survivability of the support equipment.

FY 2015 Base funding for this program continues development of the Army's standard NGATS which will improve deployability and mobility of test and diagnostic equipment. The NGATS provides state-of-the-art test and diagnostic capabilities and a means for reducing the Army's test equipment operating and support costs and the costs for supporting a number of the Army's vital warfighting systems. The FY 2015 funding will develop or significantly modify test equipment to satisfy modular force and homeland security support requirements that cannot be accommodated with test equipment currently available in the commercial marketplace such as radio frequency (RF) and electro-optic (EO) testing capability. It will also develop/redesign test program sets and hardware for support of legacy and emerging weapon systems and develop a network centric software framework for NGATS.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604746A / *Automatic Test Equipment Development*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	10.815	6.701	15.008	-	15.008
Current President's Budget	10.307	6.697	11.084	-	11.084
Total Adjustments	-0.508	-0.004	-3.924	-	-3.924
• Congressional General Reductions	-0.017	-0.004			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.302	-			
• Adjustments to Budget Years	-	-	-3.924	-	-3.924
• Other Adjustments 1	-0.189	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604746A / *Automatic Test Equipment Development*	Project (Number/Name) L59 / *Diagnost/Expert Sys*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
L59: *Diagnost/Expert Sys*	-	7.809	4.680	7.075	-	7.075	9.889	6.142	5.863	5.934	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project funds development of and system enhancements for the Next Generation Automatic Test System (NGATS). The NGATS is a general-purpose automatic test system (ATS) that provides test and diagnostic capabilities required to support current and future weapons and combat support systems and will facilitate retirement of aging and obsolete test equipment that is imposing increasing logistics and operations and support cost burdens. It is the platform for transitioning Agile Rapid Global Combat Support System (ARGCS) technologies into the Army weapon system support structure. The ARGCS initiative was sponsored by the Department of Defense, and all Services are expected to transition demonstrated technologies into their ATS programs. This project also provides for continuing efforts to upgrade and improve general-purpose automatic test equipment to satisfy test and diagnostic requirements of the Army's new and upgraded weapon systems; development and adaptation of automatic test equipment required to overcome existing deficiencies and voids in organic test and diagnostic capabilities; development and testing of common procedures utilizing existing test program sets and software applications; and market surveys of commercially available test equipment, methods and procedures to determine applicability to Army requirements. The test and diagnostic systems and procedures developed under this project are essential for ensuring the operational readiness, accuracy and effectiveness of the Army's warfighting systems.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: NGATS System Level Calibration/Verification Program	-	0.600	-
Articles:	-	-	-
Description: Develop and test the NGATS system level calibration/verification program			
FY 2014 Plans: Develop and test the NGATS system level calibration/verification program			
Title: NGATS Logistics Support Products	0.500	0.500	1.000
Articles:	-	-	-
Description: Develop NGATS initial logistics support products (including provisioning, technical manuals and calibration)			
FY 2013 Accomplishments: Continue development of initial logistics support products			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continue development of initial logistics support products ***FY 2015 Plans:*** Complete development of initial logistics support products			
Title: Developmental and Operational Follow-on Testing ***Description:*** Complete Increment 1 developmental and operational follow-on testing activities ***FY 2015 Plans:*** Complete Increment 1 developmental and operational follow-on testing activities	-	-	1.000
Title: NGATS Radio Frequency (RF) Test Capability	-	0.500	1.500
Articles:	-	-	-
Description: Develop and integrate NGATS RF test capability ***FY 2014 Plans:*** Initiate development and integration of NGATS RF test capability ***FY 2015 Plans:*** Continue development and integration of NGATS RF test capability			
Title: NGATS Increment 2	1.500	1.500	2.000
Articles:	-	-	-
Description: Develop and test hardware and software for NGATS Increment 2 system ***FY 2013 Accomplishments:*** Continue development and testing of hardware and software for support of Increment 2 systems (Avenger, Multiple Launch Rocket System, Tube-launched Optically-tracked Wire-guided (TOW) Missile System, Paladin and Common Remotely Operated Weapons Station (CROWS) II) ***FY 2014 Plans:*** Continue development and testing of hardware and software for support of Increment 2 systems (Avenger, Multiple Launch Rocket System, TOW Missile System, Paladin and CROWS II) ***FY 2015 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continue development and testing of hardware and software for support of Increment 2 systems (Avenger, Multiple Launch Rocket System, TOW Missile System, Paladin and CROWS II)			
Title: NGATS Electro-Optics Subsystem	2.655	0.500	0.500
Articles:	-	-	-
Description: Develop and test hardware and software for NGATS electro-optics (EO) subsystem (to include the capability to support new ground and aerial sensors for unmanned air and ground vehicles)			
FY 2013 Accomplishments: Continue development and testing of hardware and software for NGATS EO subsystem and for support of Increment 3 systems (Apache, Kiowa Warrior, CROWS II and Stryker Remote Weapons Station)			
FY 2014 Plans: Continue development and testing of hardware and software for NGATS EO subsystem and for support of Increment 3 systems (Apache, Kiowa Warrior, CROWS II and Stryker Remote Weapons Station)			
FY 2015 Plans: Continue development and testing of hardware and software for NGATS EO subsystem and for support of Increment 3 systems (Apache, Kiowa Warrior, CROWS II and Stryker Remote Weapons Station)			
Title: General-Purpose Shop Replaceable Unit Diagnostic Capability	0.500	0.250	-
Articles:	-	-	-
Description: Develop expanded general-purpose shop replaceable unit diagnostic capability			
FY 2013 Accomplishments: Continue development of expanded general-purpose shop replaceable unit diagnostic capability			
FY 2014 Plans: Complete development of expanded general-purpose shop replaceable unit diagnostic capability			
Title: Abrams/Bradley Test Program Set (TPS) Design	0.500	0.250	0.500
Articles:	-	-	-
Description: Design, test and evaluate Abrams/Bradley TPSs			
FY 2013 Accomplishments:			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continue design, test and evaluation of TPSs ***FY 2014 Plans:*** Continue design, test and evaluation of TPSs ***FY 2015 Plans:*** Complete design, test and evaluation of Abrams/Bradley TPSs			
Title: Additional Software Capabilities ***Articles:*** ***Description:*** Develop software capabilities to incorporate common logistics operating environment (CLOE)/netcentric and embedded diagnostics data collection and analysis for closed loop diagnostic maintenance in support of condition-based maintenance ***FY 2013 Accomplishments:*** Continue development of expanded software capabilities ***FY 2014 Plans:*** Continue development of expanded software capabilities ***FY 2015 Plans:*** Continue development of a network centric software framework to facilitate message communication, configuration status accounting, and data exchange with other components of the global information grid (GIG).	0.500 -	0.250 -	0.250 -
Title: Smart TPSs/Enhanced Self Test ***Articles:*** ***Description:*** Develop enhanced smart TPS hardware and software and enhanced self test ***FY 2013 Accomplishments:*** Continue development of enhanced smart TPSs ***FY 2014 Plans:*** Initiate development of enhanced self test strategy for NGATS ***FY 2015 Plans:*** Continue development and integration of enhanced self test strategy for NGATS.	0.500 -	0.100 -	0.300 -
Title: Power and Weight Enhancements ***Articles:***	0.354 -	0.030 -	0.025 -

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Develop power and weight enhancements for NGATS ***FY 2013 Accomplishments:*** Continue development of power and weight enhancements ***FY 2014 Plans:*** Continue development of power and weight enhancements ***FY 2015 Plans:*** Continue development of power and weight enhancements			
Title: Abrams/Bradley EO TPS Development	0.800	0.200	-
Articles:	-	-	-
Description: Develop Abrams/Bradley TPSs for use with NGATS EO asset ***FY 2013 Accomplishments:*** Continue development of TPSs ***FY 2014 Plans:*** Continue development of TPSs			
Accomplishments/Planned Programs Subtotals	7.809	4.680	7.075

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• .: *OPA3, SSN MB4000, Integrated Family of Test Equipment (IFTE)*	45.447	42.460	37.482	-	37.482	39.626	39.661	49.618	61.952	Continuing	Continuing

Remarks

D. Acquisition Strategy

This developmental project consists of organic and contractual actions. When the necessary expertise and capability are available within the Department of Defense, services required for the individual development projects are ordered from the government source; otherwise, commercial contracts are used. Equipment required for developmental projects is obtained by contract from the commercial supplier. Developmental efforts for the Next Generation Automatic Test System (NGATS) are being completed under a number of contracts awarded to the prime contractor for the Integrated Family of Test Equipment off-platform testers and other contractors with automatic test equipment (ATE) and test program set development capabilities. Full-rate production of the system will be a competitive award. NGATS is following

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
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an evolutionary acquisition strategy using incremental development to satisfy Army depot and field testing requirements for new and existing systems. It will replace existing legacy Army ATE (i.e., Base Shop Test Facility (BSTF)(V)3, BSTF(V)5, and Direct Support Electrical System Test Set) as well as Army depot system specific ATE.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development/ Verification/Validation	Various	Various, : Various	28.051	4.309		1.343		1.700		-		1.700	Continuing	Continuing	Continuing
Hardware/Support Items Development	Various	Various, : Various	57.446	1.438		2.500		3.325		-		3.325	Continuing	Continuing	Continuing
Prototype Development	SS/CPFF	Northrop Grumman, Rolling Meadows, IL : .	15.724	1.062		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	101.221	6.809		3.843		5.025		-		5.025	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management/ Technical Support	Various	Various, : Various	47.291	0.600		0.637		0.850		-		0.850	Continuing	Continuing	Continuing
Other Direct	Various	Various, : Various	3.190	0.400		0.200		0.200		-		0.200	Continuing	Continuing	Continuing
		Subtotal	50.481	1.000		0.837		1.050		-		1.050	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Testing	Various	Various, : Various	4.014	-		-		0.750		-		0.750	Continuing	Continuing	Continuing
Developmental Testing	Various	Various, : Various	1.046	-		-		0.250		-		0.250	Continuing	Continuing	Continuing
		Subtotal	5.060	-		-		1.000		-		1.000	-	-	-

Remarks

Test program set (TPS) and contractor developmental test and evalutation are included in the product development cost.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604746A / *Automatic Test Equipment Development*	Project (Number/Name) L59 / *Diagnost/Expert Sys*	

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	156.762	7.809		4.680		7.075		-		7.075	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604746A / *Automatic Test Equipment Development*	**Project (Number/Name)** L59 / *Diagnost/Expert Sys*

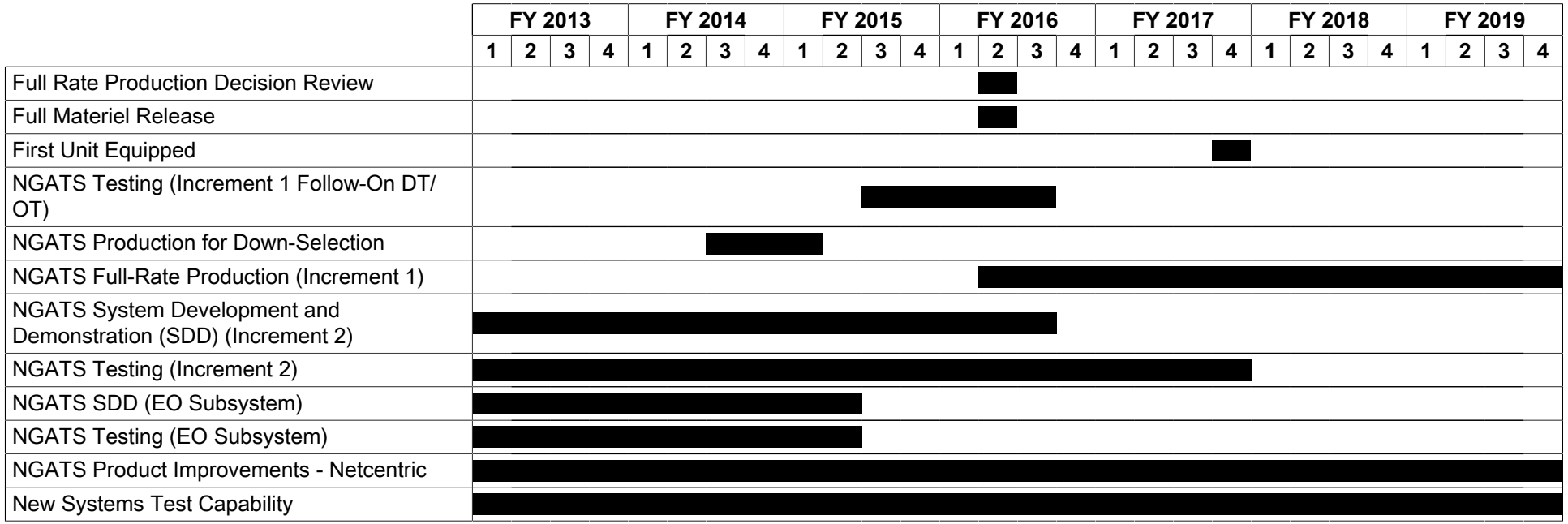

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604746A / *Automatic Test Equipment Development*	**Project (Number/Name)** L59 / *Diagnost/Expert Sys*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Full Rate Production Decision Review	2	2016	2	2016
Full Materiel Release	2	2016	2	2016
First Unit Equipped	4	2017	4	2017
NGATS Testing (Increment 1 Follow-On DT/OT)	3	2015	3	2016
NGATS Production for Down-Selection	3	2014	1	2015
NGATS Full-Rate Production (Increment 1)	2	2016	4	2019
NGATS System Development and Demonstration (SDD) (Increment 2)	4	2009	3	2016
NGATS Testing (Increment 2)	4	2010	4	2017
NGATS SDD (EO Subsystem)	4	2010	2	2015
NGATS Testing (EO Subsystem)	4	2012	2	2015
NGATS Product Improvements - Netcentric	4	2011	4	2019
New Systems Test Capability	2	2011	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604746A / *Automatic Test Equipment Development*	Project (Number/Name) L65 / *Test Equipment Development*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
L65: *Test Equipment Development*	-	2.498	2.017	4.009	-	4.009	4.293	3.738	4.145	4.365	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project supports development and demonstration of state-of-the-art calibration standards and techniques, and upgrades/improvements to existing Army calibration systems. It provides for feasibility studies, market research, inventory analyses, bid sample testing, and prototyping to support calibration systems and general-purpose test and diagnostic equipment acquisitions. Primary efforts under this project include development of calibration software, development of calibration capability for chemical and biological agent detection systems, support of AN/GSM-705 and AN/GSM-421 capability upgrade requirements, improvement of test and measurement equipment performance envelopes via product improvements, and development/evaluation of advance technology and higher reliability calibration systems and general-purpose test, measurement, and diagnostic equipment (TMDE). Product improvements are underway to current test and measurement systems to overcome deficiencies and voids in existing organic capabilities and ensure the operational readiness, accuracy, effectiveness, and safety of Army weapons and combat support systems. These improvements will employ reconfigurable open electronics architecture and computer-based instrumentation wherever feasible and will be focused on reducing the test equipment footprints to improve deployability and mobility in areas of operation.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Calibration Sets (CALSETS) Software Environment and Calibration	1.046	0.450	0.960
Articles:	-	-	-
Description: Develop and test an Army automated calibration environment and develop calibration procedures. Test efforts in support of DoD Information Assurance Certification and Accreditation Process (DIACAP).			
FY 2013 Accomplishments: Continue development and evaluation of calibration procedures. Perform testing efforts for DIACAP issues. Complete testing for initial release of a calibration software environment.			
FY 2014 Plans: Continue development and evaluation of calibration procedures. Perform testing and evaluation to support calibration software environment. Develop and test DIACAP for calibration instrument controllers.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604746A / *Automatic Test Equipment Development*	**Project (Number/Name)** L65 / *Test Equipment Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continue development and evaluation of calibration procedures. Develop, test and evaluate enhanced calibration software environment. Develop and test DIACAP for calibration instrument controllers.			
Title: Physical Instruments ***Articles:*** ***Description:*** Research, develop and test physical parameter calibration instrumentation to support areas such as chemical/ biological agent detection systems, night vision testers, small arms gauges, pneumatic pressure systems, temperature, etc. ***FY 2013 Accomplishments:*** Continue development and test of liquid hydrocarbon flow calibration and test standards. Continue development of traceable calibration standards for biological and chemical agent detectors and gas mask testers. Continue development and test of pneumatic and hydraulic transport standards. ***FY 2014 Plans:*** Continue development and test of hydrocarbon flow calibration and test standards. Develop requirements and prototype testers for small arms gage calibration standards. Continue development and test of chemical agent detectors and protective equipment testers and calibrators. ***FY 2015 Plans:*** Complete development and test of hydrocarbon flow calibration and test standards. Continue development, automate, and test prototype small arms gage calibration standards. Complete development and test of chemical agent detectors and protective equipment testers and calibrators. Initiate development of pneumatic standards to support avionic systems.	0.427 -	0.702 -	1.357 -
Title: Electrical Instruments ***Articles:*** ***Description:*** Research, develop, and test electrical parameter calibration instrumentation to support areas such as deployable recertification set, intrinsic electrical standards, electrical transport standards, etc. ***FY 2013 Accomplishments:*** Perform market research and evaluate commercial equipment and develop performance specifications for acquisition of transport calibration standards package. Develop requirements and specifications for small, practical intrinsic voltage standards. Complete development and initiate testing of a deployable recertification set capability. Continue development and testing of an intrinsic voltage standard. ***FY 2014 Plans:***	0.975 -	0.704 -	1.322 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604746A / *Automatic Test Equipment Development*	**Project (Number/Name)** L65 / *Test Equipment Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Perform market research and evaluate commercial equipment and develop performance specifications for acquisition. Continue development and testing of direct current (DC) and alternating current (AC) intrinsic voltage system. Develop and test electronic transport standards. ***FY 2015 Plans:*** Perform market research and evaluate commercial equipment and develop performance specifications for acquisition. Complete testing of DC intrinsic voltage system and continue testing of AC system. Complete testing of electronic transport standards.			
Title: Test Equipment Modernization ***Articles:*** ***Description:*** Perform market research and evaluation of commercial equipment and develop performance specifications for future general-purpose test equipment acquisitions. ***FY 2013 Accomplishments:*** Perform market research and evaluation of commercial equipment and develop performance specifications for future general-purpose test equipment acquisitions. ***FY 2014 Plans:*** Perform market research and evaluation of commercial equipment and develop performance specifications for future general-purpose test equipment acquisitions. ***FY 2015 Plans:*** Perform market research and evaluation of commercial equipment and develop performance specifications for future general-purpose test equipment acquisitions.	0.050 -	0.161 -	0.370 -
Accomplishments/Planned Programs Subtotals	2.498	2.017	4.009

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• SSN N10000: *Calibration Sets Equipment*	10.481	4.370	5.726	-	5.726	5.724	5.096	5.121	8.610	Continuing	Continuing
• SSN N11000: *Test Equipment Modernization*	37.285	18.755	16.061	-	16.061	16.252	15.268	12.881	11.903	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604746A / *Automatic Test Equipment Development*	**Project (Number/Name)** L65 / *Test Equipment Development*

D. Acquisition Strategy

Projects are focused on use of commercial and nondevelopmental item technologies. When programmatic and engineering expertise and capability are available within the Department of Defense, services required for the individual development projects are acquired from the government source; otherwise, commercial service contracts are used to provide these capabilities. Equipment required for development projects is obtained from the commercial supplier. Candidate commercial equipment and nondevelopmental items are identified and evaluated through market research and government testing and evaluation.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604746A / *Automatic Test Equipment Development*	Project (Number/Name) L65 / *Test Equipment Development*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
In-house Engineering	SS/LH	Civ Labor : various	3.016	0.700		0.715		0.744		-		0.744	Continuing	Continuing	-
		Subtotal	3.016	0.700		0.715		0.744		-		0.744	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/GSM-421(V2)	Various	Various : Various	2.346	-		-		-		-		-	Continuing	Continuing	-
CALSETS Software Environment and Calibration	Various	Various : Various	5.107	0.500		0.211		0.400		-		0.400	Continuing	Continuing	-
Physical Instruments	Various	Various : Various	5.905	0.250		0.292		0.580		-		0.580	Continuing	Continuing	-
Electrical Instruments	Various	Various : Various	8.138	0.598		0.293		0.552		-		0.552	Continuing	Continuing	-
Test Equipment Modernization	Various	Various : Various	0.230	0.050		0.090		0.160		-		0.160	Continuing	Continuing	-
		Subtotal	21.726	1.398		0.886		1.692		-		1.692	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contract Engineering	SS/FFP	University of Alabama, Huntsville : Huntsville, AL	1.837	-		0.140		0.245		-		0.245	Continuing	Continuing	-
		Subtotal	1.837	-		0.140		0.245		-		0.245	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604746A / *Automatic Test Equipment Development*	Project (Number/Name) L65 / *Test Equipment Development*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/GSM-421(V2)	Various	Various : Various	0.620	-		-		-		-		-	Continuing	Continuing	-
CALSETS Software Environment and Calibration	Various	Various : Various	0.300	0.200		0.070		0.360		-		0.360	Continuing	Continuing	-
Physical Instruments	Various	Various : Various	1.300	0.075		0.088		0.407		-		0.407	Continuing	Continuing	-
Electrical Instruments	Various	Various : Various	1.393	0.075		0.047		0.351		-		0.351	Continuing	Continuing	-
Test Equipment Modernization	Various	Various : Various	0.200	0.050		0.071		0.210		-		0.210	Continuing	Continuing	-
		Subtotal	3.813	0.400		0.276		1.328		-		1.328	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	30.392	2.498		2.017		4.009		-		4.009	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604746A / *Automatic Test Equipment Development*	**Project (Number/Name)** L65 / *Test Equipment Development*

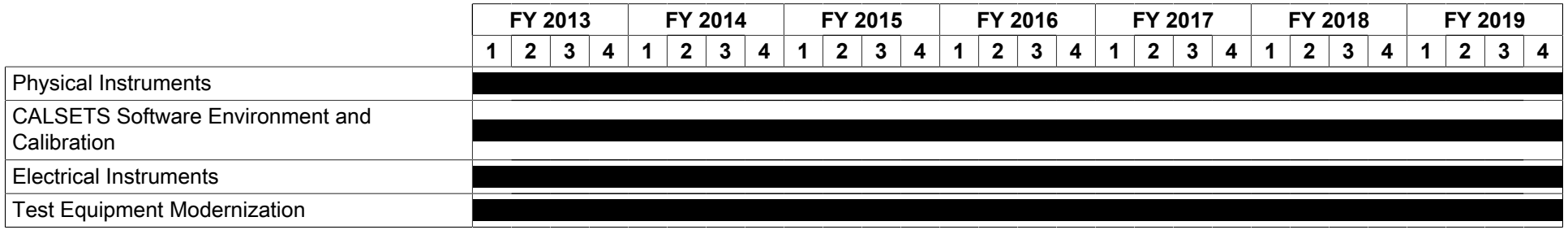

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604746A / *Automatic Test Equipment Development*	**Project (Number/Name)** L65 / *Test Equipment Development*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Physical Instruments	2	2007	4	2019
CALSETS Software Environment and Calibration	2	2007	4	2019
Electrical Instruments	2	2007	4	2019
Test Equipment Modernization	1	2011	4	2019

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604760A *I Distributive Interactive Simulations (DIS) - Eng Dev*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	12.427	12.569	10.027	-	10.027	10.381	10.595	11.014	11.287	Continuing	Continuing
C74: *Devel Simulation Tech*	-	1.942	0.500	1.088	-	1.088	1.234	1.309	1.332	1.705	Continuing	Continuing
C77: *Army Geospatial Data Master Plan*	-	-	0.616	0.597	-	0.597	0.604	0.624	0.631	0.684	-	3.756
C78: *One Semi-Automated Forces*	-	10.485	11.453	8.342	-	8.342	8.543	8.662	9.051	8.898	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

Change Summary Explanation: Funding realigned for higher Army priorities.

A. Mission Description and Budget Item Justification

The program element "Distributive Interactive Simulations - Engineering Development" applies to the Army's Advanced Simulation Program, which enables operational readiness and the development of concepts and systems for the Future Force through the application of new simulation technology and techniques. The development and application of simulation technology will provide the means to link electronically a range of various simulation tools in a manner that is transparent to the user. The amalgam of simulations and tools is linked together to enable execution of an event; to verify the scenarios, tactics/techniques and procedures; to train testers on new hardware/software; and to conduct trial test runs before costly live field tests. The tools developed are available for reuse by developers and users of simulations throughout the Army.

Project C74 provides the resources necessary to perform the formally chartered mission of the Army's Simulation-to-C4I* Interoperability Overarching Integrated Product Team (SIMCI OIPT). (*C4I = Command, Control, Communications, Computers and Intelligence.) Project C77, Army Geospatial Data Master Plan, focuses on activities that start with data acquisition from multiple sources and culminate in (1) accurate, robust and timely geospatial data and data management and (2) integration and conversion tools that support multiple battle command, training and mission-rehearsal applications. Project C78 develops the One Semi-Automated Forces (OneSAF) program, which will combine and improve the functionality and behaviors of several current semi-automated forces to provide a single SAF for Army use in simulations.

FY 2015 funding for Project C74 continues management of the SIMCI OIPT's Army-wide collaborative, interoperability enhancement activities, including architecture alignment, data model alignment, common standards, components, and products. Project C77 continues development efforts associated with the Ground-Warfighter Geospatial Data Model(GGDM) and Geospatial Data Standards. Project C78 continues development of software as required to provide OneSAF Pre-Planned Product Improvements (P3Is) as prioritized and approved by the Training and Doctrine Command.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	13.926	14.575	14.647	-	14.647
Current President's Budget	12.427	12.569	10.027	-	10.027
Total Adjustments	-1.499	-2.006	-4.620	-	-4.620
• Congressional General Reductions	-0.018	-			
• Congressional Directed Reductions	-	-2.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.339	-			
• Adjustments to Budget Years	-0.003	-0.006	-4.620	-	-4.620
• Sequester Adjustments	-1.139	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	Project (Number/Name) C74 / *Devel Simulation Tech*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
C74: *Devel Simulation Tech*	-	1.942	0.500	1.088	-	1.088	1.234	1.309	1.332	1.705	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

Project C74 funds the HQDA-chartered mission of the Simulation-to-Mission Command Interoperability (SIMCI) Overarching Integrated Product Team (OIPT). The SIMCI OIPT mission is to provide policy recommendations to Army senior leadership to improve organizations by allowing Soldiers to fight in the same manner which they train. This is accomplished by interoperability between Mission Command (MC) systems and the Modeling and Simulation (M&S) systems the Army uses to stimulate MC systems for training Soldiers and their Leaders. SIMCI also invests in targeted solutions to critical problem areas that exist between MC and Simulations. The SIMCI OIPT, led by Program Executive Office (PEO) Simulation, Training, and Instrumentation (STRI) and PEO Command Control Communications-Tactical (C3T), uses focused collaborative processes among its 30+ Army organizations to identify key/critical interoperability shortfalls and the required materiel solutions.

The SIMCI OIPT provides the following: (1) Advisor to Army Leadership--improve MC and M&S interoperability programs, policies, directives, resourcing, and procedures; (2) Technical Investment--sponsor/support initiatives that seek common solutions to critical interoperability issues surrounding MC and M&S systems; (3) Outreach--conduct & participate in interoperability outreach activities. SIMCI investments consist primarily of cost-sharing initiatives, leveraging initial system solutions of acquisition programs to enhance the interoperability of multiple systems in the Joint Operational Environment. SIMCI investments accelerate implementation within MC and M&S systems, of common data models and information exchanges that are used by other Services and coalition nations, thus enhancing the inherent ability of Army systems to interoperate seamlessly in a Joint, Interagency, Intergovernmental, and Multinational (JIIM) environment.

FY 2015 funding continues management of the SIMCI OIPT'S Army-wide collaborative, interoperability enhancement activities, including architecture alignment, data model alignment, common standards, components, and products. It is focused first on reducing costs and improving capabilities in the areas of automating Operational Plans, Orders, and Reports in support of Army, Joint, and Coalition operations. Objectives are: identify and articulate to HQDA senior leadership specific standards that require Army-wide implementation; co-develop data standards, architecture standards, implementation specifications and Joint/Coalition products; continue transition of SIMCI knowledge and proof-of-principle products to Army and Joint acquisition programs.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Program Management for the SIMCI Overarching Integrated Product Team (OIPT) Projects.	1.942	0.500	1.088
Articles:	-	-	-
Description: Program Management of the SIMCI OIPT's Army-wide collaborative, interoperability enhancement activities, including architecture alignment, data model alignment, common standards, components, and products.			
FY 2013 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C74 / *Devel Simulation Tech*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continued management of the SIMCI OIPT'S Army-wide collaborative, interoperability enhancement activities, including architecture alignment, data model alignment, common standards, components, and products. It is focused first on reducing costs and improving capabilities in the areas of automating Operational Plans, Orders, and Reports in support of Army, Joint, and Coalition operations. Objectives are: identify and articulate to HQDA senior leadership specific standards that require Army-wide implementation; co-develop data standards, architecture standards, implementation specifications and Joint/Coalition products; co-develop MC/M&S products to support PEO Integration; continue transition of SIMCI knowledge and proof-of-principle products to Army and Joint acquisition programs. ***FY 2014 Plans:*** Continues management of the SIMCI OIPT'S Army-wide collaborative, interoperability enhancement activities, including architecture alignment, data model alignment, common standards, components, and products. It is focused first on reducing costs and improving capabilities in the areas of automating Operational Plans, Orders, and Reports in support of Army, Joint, and Coalition operations. Objectives are: identify and articulate to HQDA senior leadership specific standards that require Army-wide implementation; co-develop data standards, architecture standards, implementation specifications and Joint/Coalition products; continue transition of SIMCI knowledge and proof-of-principle products to Army and Joint acquisition programs. ***FY 2015 Plans:*** Will continue management of the SIMCI OIPT'S Army-wide collaborative, interoperability enhancement activities, including architecture alignment, data model alignment, common standards, components, and products. It is focused first on reducing costs and improving capabilities in the areas of automating Operational Plans, Orders, and Reports in support of Army, Joint, and Coalition operations. Objectives are: identify and articulate to HQDA senior leadership specific standards that require Army-wide implementation; co-develop data standards, architecture standards, implementation specifications and Joint/Coalition products; continue transition of SIMCI knowledge and proof-of-principle products to Army and Joint acquisition programs.			
Accomplishments/Planned Programs Subtotals	1.942	0.500	1.088

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

SIMCI OIPT resources are allocated to multiple organizations in both the Mission Command (MC) and Modeling and Simulation (M&S) Communities. The funds are contracted to execute approved functions and to projects that advance the efforts of SIMCI and components-based architecture alignment. Products developed transition to the lead or sponsor's program which then maintains the product for the cost savings of itself and other programs in both Communities.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C74 / *Devel Simulation Tech*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	Project (Number/Name) C74 / *Devel Simulation Tech*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Various	PEO STRI : Orlando, FL	9.500	0.104	Dec 2012	0.150		0.150		-		0.150	Continuing	Continuing	Continuing
SBIR/STTR	TBD	PEO STRI : Orlando, FL	0.086	-		-		-		-		-	-	0.086	-
		Subtotal	9.586	0.104		0.150		0.150		-		0.150	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Transition of simulation initialization capability	Various	TBD : TBD	2.834	0.300	Sep 2013	-		-		-		-	Continuing	Continuing	Continuing
Geospatial Initiative	Various	TBD : TBD	1.388	-		-		-		-		-	Continuing	Continuing	Continuing
Data Model applications and reference implementations	Various	TBD : TBD	2.363	-		-		-		-		-	Continuing	Continuing	Continuing
Implementation of Initialization Products	Various	TBD : TBD	2.255	-		-		-		-		-	Continuing	Continuing	Continuing
Initialization Study Implementation	Various	TBD : TBD	1.010	0.028	Feb 2013	-		-		-		-	Continuing	Continuing	Continuing
Mission Comand systems data mediation/web services	Various	TBD : TBD	2.610	0.300	Sep 2013	-		-		-		-	Continuing	Continuing	Continuing
Expanding MTOE System Architecture (SA) Data	Various	General Dynamics : Orlando, FL	1.821	-		-		-		-		-	-	1.821	1.829
C2 Adapter Web Services and Tools	Various	TBD : TBD	2.360	0.300	Sep 2013	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	16.641	0.928		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	Project (Number/Name) C74 / *Devel Simulation Tech*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SIMCI Program/OIPT Support	Various	Various : Various	0.941	0.910	Feb 2013	0.325	Oct 2013	0.913	Oct 2014	-		0.913	Continuing	Continuing	Continuing
Army Initialization Program and Technical Work Groups (TWG)	Various	Various : Various	0.581	-		0.025		0.025		-		0.025	Continuing	Continuing	Continuing
		Subtotal	1.522	0.910		0.350		0.938		-		0.938	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	27.749	1.942		0.500		1.088		-		1.088	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C74 / *Devel Simulation Tech*

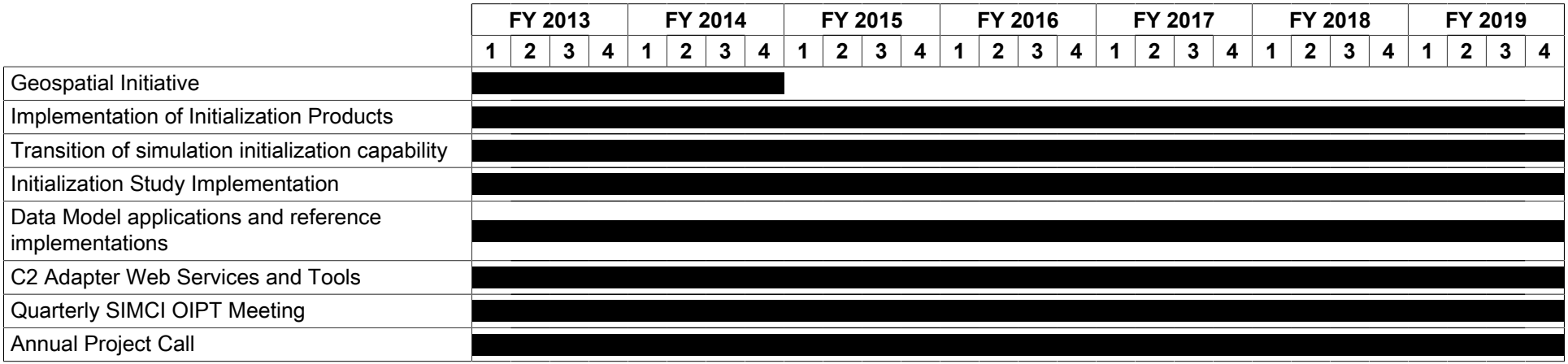

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C74 / *Devel Simulation Tech*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Geospatial Initiative	1	2011	4	2014
Implementation of Initialization Products	1	2010	4	2019
Transition of simulation initialization capability	1	2010	4	2019
Initialization Study Implementation	1	2010	4	2019
Data Model applications and reference implementations	1	2010	4	2019
C2 Adapter Web Services and Tools	1	2010	4	2019
Quarterly SIMCI OIPT Meeting	1	2010	4	2019
Annual Project Call	1	2010	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	Project (Number/Name) C77 / *Army Geospatial Data Master Plan*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
C77: *Army Geospatial Data Master Plan*	-	-	0.616	0.597	-	0.597	0.604	0.624	0.631	0.684	-	3.756
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

Project C77 addresses the implementation and acceleration of objectives of the Army Geospatial Data Integrated Master Plan (AGDIMP), approved by the Chief of Staff, Army in April 2005. The AGDIMP provides the framework for generating, analyzing and distributing geospatial data for battle management operations, training, and mission rehearsal. The AGDIMP also provides the procedures for identifying and refining Army geospatial resource requirements. Geospatial data provide soldiers with the framework and background for displaying the location of friendly and enemy forces and the location of other critical features on the battlefield. Geospatial data -- used in Army command and control systems, course of action analysis, mission rehearsal tools, simulators and simulations -- provide insights on how the physical environment will impact combat operations. This minimizes exposure of soldiers to hostile environments. The AGDIMP describes the operations for a complete, integrated network-centric enterprise for managing and updating geospatial data required for the Army's Future Force. Although this plan encompasses most of the issues of an enterprise solution for geospatial needs and concerns, it does not contain the full level of detail or complexity required to be considered complete. The AGDIMP includes all activities starting with data acquisition from multiple sources (including raw sensor feeds from national sensors to soldier/platform level) and concluding with accurate, robust, and timely geospatial (terrain-related) data management, integration, and conversion tools that support multiple battle command, training, and mission-rehearsal applications. The AGDIMP does not include the algorithms and functions used by the applications themselves to produce finished battle command or intelligence products. The AGDIMP will become part of a much larger effort to integrate geospatial activities across all Services while documenting the complex framework for a "net ready" geospatial information and service architecture, an environment in which the Army's current and future forces must operate to achieve information dominance within the total battle space. This larger effort is currently being developed in conjunction with the Joint Forces Command and the other Services, including Special Operations Command.

FY 2015 funding continues development efforts associated with the Ground-Warfighter Geospatial Data Model(GGDM) and Geospatial Data Standards.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Ground-Warfighter Geospatial Data Model (GGDM) formerly Army Geospatial Data Model (AGDM)	-	0.299	0.289
Articles:	-	-	-
Description: The GGDM incorporates common data elements that conform to standards mandated by the Department of Defense Information Technology Standards Registry (DISR) for the National System for Geospatial Intelligence (NSG). Incorporating common geospatial data standards into the GGDM makes the Programs of Record (POR) consistent with new DISR-mandated geospatial intelligence standards for the NSG.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C77 / *Army Geospatial Data Master Plan*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2014 Plans: Develop GGDM 2.2 reference implementation in commercial and open source database schema required by Army Programs. Develop tools to translate legacy geospatial data into GGDM 2.2 schema. ***FY 2015 Plans:*** Perform data modeling actions necessary to develop the next version of the GGDM (ver 2.3) including aligning content from Aviation, Human Geography and adding and aligning new content from NGA's 9 domain data stores.			
Title: Geospatial Data Standards	-	0.317	0.308
Articles:	-	-	-
Description: Army Geospatial Standards including data standards and standards for services to manage process and disseminate and utilize geospatial data. ***FY 2014 Plans:*** Development and consistent integration of geospatial enterprise data standards, including standard practices for production and management of geospatial data, into Army Mission Command, Simulation and Training programs, systems and organizations. ***FY 2015 Plans:*** Development and consistent integration of geospatial enterprise data standards, including standard practices for production and management of geospatial data, into Army Mission Command, Simulation and Training programs, systems and organizations.			
Accomplishments/Planned Programs Subtotals	-	0.616	0.597

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Resources are allocated to multiple organizations for approval and execution of projects in support of the Army Geospatial Data Integrated Master Plan (AGDIMP).

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	Project (Number/Name) C77 / *Army Geospatial Data Master Plan*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Army Geospatial Model and Data Standards	Various	TBD : TBD	3.582	-		0.616		0.597		-		0.597	-	4.795	3.614
		Subtotal	3.582	-		0.616		0.597		-		0.597	-	4.795	3.614

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.582	-		0.616		0.597		-		0.597	-	4.795	3.614

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C77 / *Army Geospatial Data Master Plan*

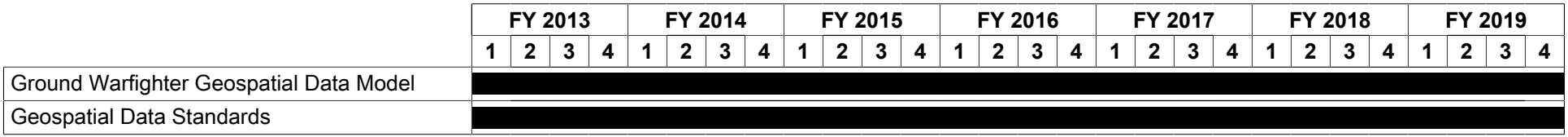

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C77 / *Army Geospatial Data Master Plan*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Ground Warfighter Geospatial Data Model	1	2012	4	2019
Geospatial Data Standards	1	2010	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	Project (Number/Name) C78 / *One Semi-Automated Forces*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
C78: *One Semi-Automated Forces*	-	10.485	11.453	8.342	-	8.342	8.543	8.662	9.051	8.898	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

One Semi-Automated Forces (OneSAF) develops and delivers a software system that represents activities of units and forces in simulation. This representation is used to support the concept evaluation, experimentation, materiel acquisition and training communities. The focus of this project is systems engineering and design for development and evolution of the architecture and software tools for a universal system of Army computer-generated forces -- OneSAF. OneSAF is a high fidelity brigade-and-below SAF that represents a full range of operations, systems and control processes in support of stand-alone and embedded training and Research, Development and Acquisition (RDA) simulation applications. OneSAF is fully interoperable with the Army's emerging virtual, live, and division-and-above constructive simulations and provides next-generation simulation products. OneSAF replaces a variety of legacy simulations currently used within the Army to support analytic and training simulation activities.

FY 2015 funding will continue development of the software product line by providing OneSAF Pre-Planned Product Improvements (P3Is) as prioritized and approved by the OneSAF Project Office - Training and Doctrine Command (TRADOC).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Engineering and Manufacturing Development (EMD) phase contract activities for the One Semi-Automated Forces program.	7.924	7.737	4.912
Articles:	-	-	-
Description: Continue EMD phase contract activities for the OneSAF program.			
FY 2013 Accomplishments: Executed the development of software capabilities to provide OneSAF Pre-Planned Product Improvements (P3Is) as prioritized and approved by the Training and Doctrine Command (TRADOC) Project Office. Completed the software development of functionality that enhances architectural services, components, synthetic environment and infrastructure capable of supporting model development. Completed software development, test and release of Version 6.0.			
FY 2014 Plans: Continues the development of software capabilities to provide OneSAF Pre-Planned Product Improvements (P3Is) as prioritized and approved by Training and Doctrine Commands (TRADOC) OneSAF Project Office. Continues enhancement of functionality			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C78 / *One Semi-Automated Forces*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
of architectural services, components, the synthetic environment and infrastructure capable of supporting model development. Performs Software development, test and release of Version 7.0. ***FY 2015 Plans:*** Will continue the development of software capabilities based on OneSAF Pre-Planned Product Improvements (P3Is) as prioritized and approved by the Training and Doctrine Command (TRADOC) OneSAF Project Office. Continues the software development of functionality that enhances architectural services, components, synthetic environment and infrastructure of the OneSAF product Line and provides for software integration, test and release of Version 8.0 and 8.0 International.			
Title: Government System Test and Evaluation for the One Semi-Automated Forces program. ***Articles:*** ***Description:*** Government System Test and Evaluation for the OneSAF program. ***FY 2013 Accomplishments:*** Performed development software, test, release and verification for Version 6.0. Provided support to the user community in conducting experiments and validation events as needed for integration into the JLCCTC federation and LVC applications. ***FY 2014 Plans:*** Perform software development, test, integration, release and verification for Version 7.0. Continue to provide support to the user community in conducting experiments and validation events as needed for integration into the JLCCTC federation and LVC applications. ***FY 2015 Plans:*** Provides for the conducting of software, test, integration and release for Version 8.0 and 8.0 international. Provides support to the user community in conducting experiments and validation events as needed for integration into the Home Station Training federation, Network Integration events, and LVC applications.	1.100 -	1.200 -	1.100 -
Title: Government Program Management for the One Semi-Automated Forces (OneSAF) program. ***Articles:*** ***Description:*** Government Program Management for the One Semi-Automated Forces (OneSAF) program. ***FY 2013 Accomplishments:*** Program Management for the One Semi-Automated Forces (OneSAF) program. ***FY 2014 Plans:***	1.461 -	2.516 -	2.330 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C78 / *One Semi-Automated Forces*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Program Management for the One Semi-Automated Forces (OneSAF) program. ***FY 2015 Plans:*** Program Management for the One Semi-Automated Forces (OneSAF) program.			
Accomplishments/Planned Programs Subtotals	10.485	11.453	8.342

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OMA: *OMA, 121014000*	3.897	5.041	3.518	-	3.518	3.648	3.681	3.761	3.827	Continuing	Continuing

Remarks

OMA funds provide for maintenance of existing OneSAF product line to include life cycle software support and OneSAF TRADOC Project Office (TPO).

D. Acquisition Strategy

Continue the yearly release of the OneSAF Software (SW) versions containing performance enhancements resulting from the development and integration of both approved Product Improvements and Co-Developer handovers. PM OneSAF continues to manage two Delivery Orders for the Development, Integration, Interoperability, and Support (I2S) of capabilities products, data, and documentation that fully serves the current and evolving needs of the user community.

The enhancements will be executed within the development line as modifications to the released baseline via Engineering Change Proposals (ECPs); Change Requests (CRs): Pre-Planned Product Improvements (P3I); and correction of deficiencies identified as Problem Test Reports (PTRs) and Deficiency Reports (DRs) by the user community.

The Development Delivery Order is primarily focused on capability enhancements within the OneSAF Product Line. The key objectives here are to develop the capabilities needed to execute the OneSAF production line and deliver OneSAF SW product line, data, and documentation to meet the needs of the growing user community. These software products will include capabilities supporting the requirements of the OneSAF program; other US Army PEOs and PMs, TRADOC Battle Labs, Research and Development Centers (RDECs) and agencies; other Service and Joint agencies; Foreign Countries; non Department of Defense government organizations and agencies; academic institutions and other Co-Developers.

The I2S Delivery Order is primarily focused on the Configuration Management and Control of the released OneSAF Product Line and executes the overarching OneSAF integration, interoperability and support efforts required for delivery of OneSAF SW, data and documentation products to the User Community. It also provides the Conceptual Modeling, Architectural and Engineering support to the OneSAF Co-Developers as required to support their OneSAF SW product deliveries; the training products and support required by the OneSAF user community; and integration of capabilities.

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C78 / *One Semi-Automated Forces*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	Project (Number/Name) C78 / *One Semi-Automated Forces*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Various	PEO STRI, Orlando, FL : Various	17.895	1.461	Dec 2012	2.516	Oct 2013	2.330	Nov 2014	-		2.330	Continuing	Continuing	Continuing
		Subtotal	17.895	1.461		2.516		2.330		-		2.330	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Architecture Dev & System Integration	C/CPFF	Science Applications International Corp : Orlando, FL	51.466	-		-		-		-		-	-	51.466	51.466
Model and Tools Development	C/CPFF	Science Applications International Corp : Orlando, FL	27.625	-		-		-		-		-	-	27.625	27.625
Environmental Runtime Component	C/CPFF	Science Applications : Orlando, FL	7.981	-		-		-		-		-	-	7.981	7.981
OneSAF Component Development	C/CPFF	Various : Various	9.648	-		-		-		-		-	-	9.648	9.648
Integrated Environment Dev	C/CPFF	Advanced Systems Technology, Inc : Orlando FL	11.702	-		-		-		-		-	-	11.702	11.702
OneSAF Bridge Contract	C/CPFF	Science Applications International Corp : Orlando, FL	3.797	-		-		-		-		-	-	3.797	3.797
Integration, Interoperability, and Support (I2S)	C/CPFF	Cole Engineering Services, Inc. : Orlando, FL	1.000	0.554	Nov 2012	0.600	Nov 2013	1.370	Dec 2014	-		1.370	Continuing	Continuing	Continuing
Software Development	C/CPFF	Science Applications International Corp : Orlando, FL	6.504	5.475	Oct 2012	5.032	Dec 2013	1.232	Dec 2014	-		1.232	Continuing	Continuing	Continuing
		Subtotal	119.723	6.029		5.632		2.602		-		2.602	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C78 / *One Semi-Automated Forces*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Analysis	Various	Various : Various	6.097	0.150	Nov 2012	0.150	Dec 2013	0.200	Oct 2014	-		0.200	Continuing	Continuing	Continuing
Domain Analysis	Various	Various : Various	5.375	0.120	Nov 2012	0.150	Dec 2013	0.100	Oct 2014	-		0.100	Continuing	Continuing	Continuing
Integrated Development Environment	Various	Various : Various	2.506	1.217	Dec 2012	1.455	Oct 2013	1.660	Oct 2014	-		1.660	Continuing	Continuing	Continuing
Architecture Engr & Tech Spt	SS/FP	MITRE FFRDC : Ft. Monmouth, NJ	3.976	0.408	Jan 2014	0.350	Oct 2013	0.350	Oct 2014	-		0.350	Continuing	Continuing	Continuing
		Subtotal	17.954	1.895		2.105		2.310		-		2.310	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
OneSAF integration, evaluation and test	Various	Various : Various	8.479	0.900	Dec 2012	0.950	Dec 2013	0.900	Dec 2014	-		0.900	Continuing	Continuing	Continuing
OneSAF Verification, Validation & Accreditation	Various	Various : Various	6.347	0.200	Dec 2012	0.250	Dec 2013	0.200	Dec 2014	-		0.200	Continuing	Continuing	Continuing
		Subtotal	14.826	1.100		1.200		1.100		-		1.100	-	-	-

	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	170.398	10.485		11.453		8.342		-		8.342	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C78 / *One Semi-Automated Forces*

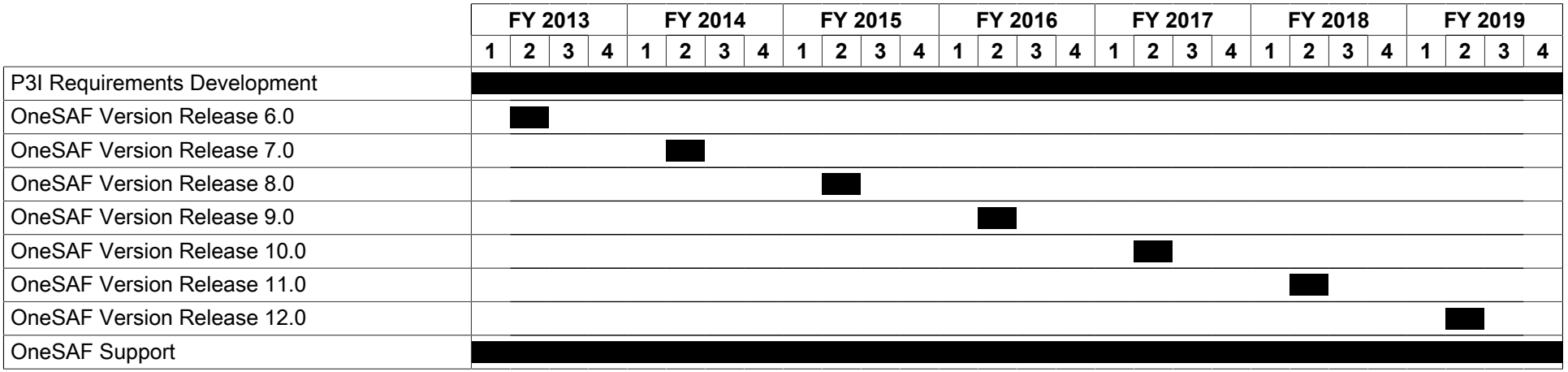

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604760A / *Distributive Interactive Simulations (DIS) - Eng Dev*	**Project (Number/Name)** C78 / *One Semi-Automated Forces*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
P3I Requirements Development	1	2006	4	2020
OneSAF Version Release 6.0	2	2013	2	2013
OneSAF Version Release 7.0	2	2014	2	2014
OneSAF Version Release 8.0	2	2015	2	2015
OneSAF Version Release 9.0	2	2016	2	2016
OneSAF Version Release 10.0	2	2017	2	2017
OneSAF Version Release 11.0	2	2018	2	2018
OneSAF Version Release 12.0	2	2019	2	2019
OneSAF Support	1	2006	4	2020

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	16.005	27.619	42.430	-	42.430	18.267	23.185	29.105	46.599	Continuing	Continuing
571: *Close Cbt Tact Trainer*	-	3.817	0.828	0.815	-	0.815	0.986	0.985	0.987	0.988	Continuing	Continuing
577: *Gaming Technology In Support Of Army Training*	-	1.310	2.117	1.769	-	1.769	1.966	2.215	2.302	2.364	Continuing	Continuing
582: *Synthetic Envir Core*	-	8.580	20.848	28.175	-	28.175	15.315	15.308	21.880	35.524	Continuing	Continuing
585: *Aviation Combined Arms Tactical Trainer*	-	2.298	3.826	11.671	-	11.671	-	4.677	3.936	7.723	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

Change Summary Explanation: AVCATT is required to design, develop and test new capabilities to enhance training in a combined mode with NCM3. SE CORE is required to generate Terrain Databases for Regionally Aligned Forces (RAF). Budget adjustment received to achieve requirements.

A. Mission Description and Budget Item Justification

The Combined Arms Tactical Trainers (CATT) represent a family of combined arms simulation systems designed to support the Army's simulation-based, Combined Arms Training Strategy. CATT enables units, from crew to the battalion task force level, to conduct a wide variety of combat tasks on a realistic, interactive, synthetic battlefield. CATT's combination of manned simulators and staff officer workstations enables units to train as a combined arms team in a cost effective manner. The primary CATT system is the Close Combat Tactical Trainer (CCTT) which provides the underlying baseline architecture and After Action Review (AAR) for CATT expansions, Pre-Planned Product Improvements (P3I) and system enhancements. The Reconfigurable Vehicle Simulator (RVS) and the Dismounted Soldier Training System (DSTS) variants support combat convoy operations and Improvised Explosive Devices (IED) tasks. Synthetic Environment (SE) Core provides for the expansion of the synthetic environment baseline to include enhanced interoperability and the products and infrastructure to support current and future combat operations and mission rehearsal required for Overseas Contingency Operations (OCO) and Unified Land Operations. The first synthetic environments expanded were in the Aviation Combined Arms Tactical Trainer (AVCATT) and the CCTT for both the Active and Reserve components. Gaming Technology provides an application to train and rehearse convoy-operations, platoon level, mounted infantry tactics, dismounted operations, rules-of-engagement training, cross-cultural communications training, IED defeat training, route clearance, ground-air coordination, Unmanned Aerial Vehicle (UAV) integration, and other small unit and individual training and mission rehearsal requirements. Soldiers can train in a common environment on geotypical or geospecific virtual terrain. It is also possible to link Gaming technology to actual communication, command, control, computer, and intelligence (C4I) systems and other CATT simulation systems to increase the utility and realism of the training. By practicing skills in CATT, units are able to effectively prepare for costly live fire and maneuver exercises, as well as train tasks deemed too hazardous to conduct in a live training environment. Fielded in both fixed site and mobile versions, CATT enables both Active and Reserve component units to prepare for real world contingency missions. By being able to use a wide array of training terrain databases and modify the behavior of the computer generated opposing forces, CATT offers an unlimited array of training options to support the Army's many regional combat missions. The combination of tough field and live fire training, and realistic simulation training in

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army	Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*

CATT, is the formula to prepare Soldiers and their Leaders for the uncertainties they face in current combat operations in Afghanistan, and their transition to Unified Land Operations.

FY 2015 base funding of $.815 million for CCTT enables the P3I for the CCTT Dismounted Soldier Training System (DSTS) in support of Infantry Brigade Combat Teams, Stryker Brigade Combat Teams, Airborne, Ranger, Special Forces units and Armor Brigade Combat Teams.

FY 2015 base funding of $1.769 million for Games for Training will integrate the flagship product into the Live-Virtual-Constructive Integrated Training Environment (LVC-ITE).

FY 2015 base funding of $28.175 million will continue the efforts of providing expanded development and production for common terrain databases. FY 2015 funds will modify the Terrain Development process for constructive Terrain Database Production, continue to enhance OneSAF in the SE Core Architecture and database generation for Regionally Aligned Forces (RAF). Maintaining OneSAF for virtual simulations enables interoperability with the Live, Virtual, Constructive Integrated Training Environment (LVC ITE) and reduces cost as individual virtual simulators will no longer develop and maintain separate SAFs. The SE Core Product Line of Common Virtual Components will continue with upgrades, integration and refinement, and the continued development of common visual models.

FY 2015 base funding of $11.671 million will design, develop and test new capabilities to enhance training when using the AVCATT and NCM3 in combined mode, including improved communications, hoist operations, slingload operations, visual realism improvements, and enhanced After Action Review capabilities. It will also design new interfaces required for interoperability with ABCS systems and Contemporary Operating Environment (COE) Compliance with the Realtime/Safety Critical/ Embedded Computing Environment (CE).

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	17.797	27.634	26.413	-	26.413
Current President's Budget	16.005	27.619	42.430	-	42.430
Total Adjustments	-1.792	-0.015	16.017	-	16.017
• Congressional General Reductions	-0.024	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.469	-			
• Adjustments to Budget Years	-0.003	-0.015	16.017	-	16.017
• Sequester Adjustments	-1.296	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	Project (Number/Name) 571 / *Close Cbt Tact Trainer*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
571: *Close Cbt Tact Trainer*	-	3.817	0.828	0.815	-	0.815	0.986	0.985	0.987	0.988	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The Close Combat Tactical Trainer (CCTT) immersively and comprehensively trains Infantry, Armor, Mechanized Infantry, Cavalry and Armored Reconnaissance units from squad through Battalion/Squadron level, to include their staffs. The primary training audience operates from full-crew simulators, reconfigurable command posts, and live battalion command posts to accomplish their combined arms training tasks. CCTT is a ground based, collective training device composed of three systems: the CCTT, the Reconfigurable Vehicle Tactical Trainer (RVTT), and the Dismounted Soldier Training System (DSTS). CCTT is comprised of full fidelity, manned simulators for the M1 Abrams main battle tank, M2 Bradley Fighting Vehicles (BFV) variants, M3 Cavalry Fighting Vehicles (CFV), and the High Mobility, Multipurpose, Wheeled Vehicle (HMMWV). RVTT is a CCTT Reconfigurable Vehicle Simulator (RVS) comprised of full fidelity, manned simulators for the HMMWV and Heavy Expanded Mobility Tactical Truck (HEMTT). DSTS is a virtual trainer providing an ability to immerse the individual soldier into the synthetic virtual environment.

FY 2015 core funding of $.815 million for CCTT enables gaming technology for maneuver training, and the P3I for the CCTT, to include DSTS, in support of Infantry Brigade Combat Teams, Stryker Brigade Combat Teams, Airborne, Ranger, Special Forces units and Armor Brigade Combat Teams.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Government Program Management for the Close Combat Tactical Trainer (CCTT) program.	0.179	0.165	0.157
Articles:	-	-	-
Description: Government Program Management for the CCTT program. ***FY 2013 Accomplishments:*** Supported government program management, engineering, technical, contracting support, and continues operational evaluation support. ***FY 2014 Plans:*** Supports government program management, engineering, technical, contracting support, and continues operational evaluation support. ***FY 2015 Plans:*** Will support government program management, engineering, technical, contracting support, and continues operational evaluation support.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the CCTT DSTS.	3.638	0.663	0.658

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 571 / *Close Cbt Tact Trainer*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: Continue EMD phase contract activities for the CCTT DSTS. ***FY 2013 Accomplishments:*** Enabled the P3I for the CCTT DSTS in support of Infantry Brigade Combat Teams, Stryker Brigade Combat Teams, Airborne, Ranger, Special Forces units and Heavy Brigade Combat Teams. ***FY 2014 Plans:*** Enables the P3I for the CCTT DSTS in support of Infantry Brigade Combat Teams, Stryker Brigade Combat Teams, Airborne, Ranger, Special Forces units and Heavy Brigade Combat Teams. ***FY 2015 Plans:*** Will enable the P3I for the CCTT DSTS in support of Infantry Brigade Combat Teams, Stryker Brigade Combat Teams, Airborne, Ranger, Special Forces units and Armor Brigade Combat Teams.			
Accomplishments/Planned Programs Subtotals	3.817	0.828	0.815

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OPA3, Appropriation NA0170: *OPA3, Appropriation NA0170*	19.958	30.063	13.406	-	13.406	50.516	28.575	44.116	53.957	Continuing	Continuing
• OMA, Appropriation 121018000: *OMA, Appropriation 121018000*	-	1.600	-	-	-	-	-	-	-	Continuing	Continuing

Remarks

The RDT&E efforts are essential to provide enhancements for the hardware and software of the program to meet warfighter mission priorities and validated requirements. These enhancements, after proper testing, will be procured and fielded with the programs procurement funds.

D. Acquisition Strategy

FY 2015 will enable military gaming technology research for maneuver training and Pre-Planned Product Improvements (P3I) for the Dismounted Soldier Training System (DSTS).

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	Project (Number/Name) 571 / *Close Cbt Tact Trainer*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	Various	PEO STRI : Orlando, FL	17.081	0.179	Dec 2012	0.165		0.157		-		0.157	Continuing	Continuing	Continuing
		Subtotal	17.081	0.179		0.165		0.157		-		0.157	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development of CCTT Dismounted Soldier Training System	C/FFP	Intelligent Decisions, Inc. : Ashburn, VA	6.896	3.638	Apr 2013	0.663	Mar 2014	0.658	Mar 2015	-		0.658	Continuing	Continuing	Continuing
		Subtotal	6.896	3.638		0.663		0.658		-		0.658	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	23.977	3.817		0.828		0.815		-		0.815	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 571 / *Close Cbt Tact Trainer*

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Development and P3I of the CCTT Dismounted Soldier Training System	[redacted]																											

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 571 / *Close Cbt Tact Trainer*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Development and P3I of the CCTT Dismounted Soldier Training System	2	2011	2	2015

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*				Project (Number/Name) 577 / *Gaming Technology In Support Of Army Training*			
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
577: *Gaming Technology In Support Of Army Training*	-	1.310	2.117	1.769	-	1.769	1.966	2.215	2.302	2.364	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

The Games for Training (GFT) Program prepares soldiers and leaders for full-spectrum military operations in the Decisive Action/Unified Land Operations (DA/ULO) with robust training and mission rehearsal capabilities. The GFT program satisfies the Active, the National Guard, and the Army Reserves's educational requirements in the Operational, Institutional, and Self-Development Training Domains with a low-overhead, flexible, persistent training capability on geo-specific and geo-typical terrain that is relevant with all military platforms & weapon systems.

FY 2015 base funding of $1.769 million will integrate the flagship product into the Live, Virtual, Constructive/Integrated Training Environment (LVC-ITE). It will also integrate new commercial and government technology products into the current gaming system.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Games for Training (GFT) program.	0.971	1.751	1.400
Articles:	-	-	-
Description: Continue EMD phase contract activities for the GFT program. ***FY 2013 Accomplishments:*** Funding provided modifications to the GFT system to ensure compliance with the LVC-IA in support of DA/ULO. ***FY 2014 Plans:*** Funding provides modifications to the GFT system to ensure compliance with the LVC-IA in support of DA/ULO. ***FY 2015 Plans:*** Funding will integrate the flagship product into the LVC-IA. It will also integrate new commercial and government technology products into the current gaming system.			
Title: Government Program Management for the GFT program.	0.339	0.366	0.369
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 577 / *Gaming Technology In Support Of Army Training*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Government Program Management for the GFT program. ***FY 2013 Accomplishments:*** Government program management, engineering, technical, contract and test support for the GFT program. ***FY 2014 Plans:*** Government program management, engineering, technical, contract and test activities provide fielding, integration of software and web hosted support to Soldier tactical training. ***FY 2015 Plans:*** Government program management, engineering, technical, contract and test activities provide fielding, integration of software and web hosted support to Soldier tactical training.			
Accomplishments/Planned Programs Subtotals	1.310	2.117	1.769

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OPA 3: *OPA 3, Appropriation NA0176 Gaming Technology in Support of Army Training*	6.513	9.955	10.165	-	10.165	13.729	15.009	17.314	19.370	Continuing	Continuing

Remarks

D. Acquisition Strategy

A combination of the transition of Government off the shelf and Commercial off the shelf products coupled with competitive contracting using the existing requirements documents and annual user Requirement Control Boards.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	Project (Number/Name) 577 / *Gaming Technology In Support Of Army Training*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	Various	PEO STRI : Orlando, FL	0.598	0.339	Dec 2012	0.366		0.369		-		0.369	Continuing	Continuing	Continuing
		Subtotal	0.598	0.339		0.366		0.369		-		0.369	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Games for Training	Various	PEO STRI : Orlando, FL	2.603	0.971	Mar 2014	1.751	Jun 2014	1.400	Aug 2015	-		1.400	Continuing	Continuing	Continuing
		Subtotal	2.603	0.971		1.751		1.400		-		1.400	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.201	1.310		2.117		1.769		-		1.769	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 577 / *Gaming Technology In Support Of Army Training*

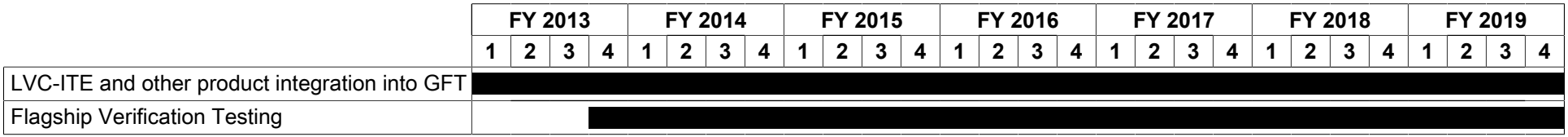

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 577 / *Gaming Technology In Support Of Army Training*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
LVC-ITE and other product integration into GFT	1	2010	4	2019
Flagship Verification Testing	4	2013	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	Project (Number/Name) 582 / *Synthetic Envir Core*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
582: *Synthetic Envir Core*	-	8.580	20.848	28.175	-	28.175	15.315	15.308	21.880	35.524	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project supports the Synthetic Environment Core (SE Core) Program. SE Core's mission is to ensure the Army's virtual training systems and simulators are integrated and interoperable. SE Core provides virtual simulators with visual models (buildings and vehicles), terrain (over which the simulator moves), and entity behaviors (models performing realistic and appropriate actions such as movement and weapon effects) that are relevant and realistic to Unified Land Operations. The result is a "Fair Fight" capability; no simulator or operator will have an inherent advantage over another. Fair Fight allows for air and ground to have coordinated and integrated training events that accurately replicate combat operations. Additionally, SE Core is building the Army's Common Virtual Environment (CVE) that provides the linkage between simulators and establishes a common environment for interoperability, allowing various simulators to be "hooked up" together for a train as we fight capability. SE Core is a foundational element in the Army's Training Transformation Plan linking the embedded systems, multi-mode Live, Virtual, Constructive, Gaming (LVCG) training capability with current systems.

The SE Core components are One Semi-Automated Forces (OneSAF) integration; terrain database production; common visual models; a virtual systems architecture; a dynamic environment; mission command development; and net ready. A major SE Core component is the Standard Terrain Database Generation Capability (STDGC) process used to produce the synthetic terrain used in simulators and simulations. This terrain produced by SE Core is a key component for virtual simulators and constructive simulations and will expand to meet the growing demands of today's and future simulations.

FY 2015 base funding of $28.175 million will continue the efforts of providing expanded development and production for common terrain databases. FY 2015 funds will modify the Terrain Development process for constructive Terrain Database Production, continue to enhance OneSAF in the SE Core Architecture and database generation for Regionally Aligned Forces (RAF). Maintaining OneSAF for virtual simulations enables interoperability with the Live, Virtual, Constructive Integrated Training Environment (LVC ITE) and reduces cost as individual virtual simulators will no longer develop and maintain separate SAFs. The SE Core Product Line of Common Virtual Components will continue with upgrades, integration and refinement, and the continued development of common visual models.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Synthetic Environment Core (SE Core) program.	6.588	17.377	24.594
Articles:	-	-	-
Description: Continue EMD phase contract activities for the SE Core program.			
FY 2013 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 582 / *Synthetic Envir Core*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Provided expansion of the production capability to meet the growing demand for synthetic terrain for training including constructive simulations. In addition, SE Core is prepared to begin development of the SAF behaviors for the Dismounted Soldier System. Efforts to improve interoperability across simulators and simulations continue. ***FY 2014 Plans:*** Provides expansion of the production capability to meet the growing demand for synthetic terrain for training including constructive simulations. Efforts to improve interoperability across simulators and simulations continue. ***FY 2015 Plans:*** Will provide expansion of the production capability to meet the growing demand for synthetic terrain for training including constructive simulations and Regionally Aligned Forces (RAF). Efforts to improve interoperability across simulators and simulations continue.			
Title: Government Program Management for the Synthetic Environment Core (SE Core) program. ***Articles:*** ***Description:*** Government Program Management for the SE Core program. ***FY 2013 Accomplishments:*** Provided program management, engineering and technical oversight, contract support, and test support (including travel for Subject Matter Experts) for development of SE Core. ***FY 2014 Plans:*** Provides program management, engineering and technical oversight, contract support, and travel for Subject Matter Experts for the development of SE Core. ***FY 2015 Plans:*** Will provide program management, engineering and technical oversight, contract support, and travel for support of site surveys and Subject Matter Experts for the development of SE Core.	1.992 -	3.471 -	3.581 -
Accomplishments/Planned Programs Subtotals	8.580	20.848	28.175

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OMA, Appropriation, 121014000: *OMA, Appropriation 121014000, TBWG*	4.450	9.982	5.673	-	5.673	17.022	17.499	20.183	24.378	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 582 / *Synthetic Envir Core*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

SE Core awarded Science Applications International Corporation (SAIC) a cost plus fixed fee (CPFF) contract in August 2011, with a period of performance start date of December 2011. This contract has a one year base with four option years. SE Core exercised the first option in December 2012 and second option in December 2013. At this time, SE Core continues to evaluate the contractor's performance and fully expects to exercise the third option in December 2014.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	Project (Number/Name) 582 / *Synthetic Envir Core*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	Various	Various : Various	3.622	-		-		-		-		-	-	3.622	3.622
Government Program Management Support	Various	PEO STRI : Orlando, FL	16.979	1.992	Dec 2012	3.471	Dec 2013	3.581	Dec 2014	-		3.581	Continuing	Continuing	Continuing
		Subtotal	20.601	1.992		3.471		3.581		-		3.581	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Development - Architecture and Integration	C/CPFF	SAIC : Orlando, FL	6.946	-		-		-		-		-	-	6.946	6.946
Technology Development -Architecture and Integration	C/CPFF	SAIC : Orlando, FL	50.785	-		-		-		-		-	-	50.785	50.785
Technology Development -Database Virtual Environment Development	C/CPFF	CAE, USA : Orlando, FL	56.179	-		-		-		-		-	-	56.179	56.179
Technology Development-Common Virtual Environment & Management	C/CPFF	SAIC : Orlando, FL	11.604	6.588	Dec 2012	17.377	Dec 2013	24.594	Dec 2014	-		24.594	Continuing	Continuing	Continuing
		Subtotal	125.514	6.588		17.377		24.594		-		24.594	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Development - Test Support	Various	Test Community : Various	0.125	-		-		-		-		-	-	0.125	0.125
		Subtotal	0.125	-		-		-		-		-	-	0.125	0.125

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	Project (Number/Name) 582 / *Synthetic Envir Core*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks															
Not Applicable															

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	146.240	8.580		20.848		28.175		-		28.175	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 582 / *Synthetic Envir Core*

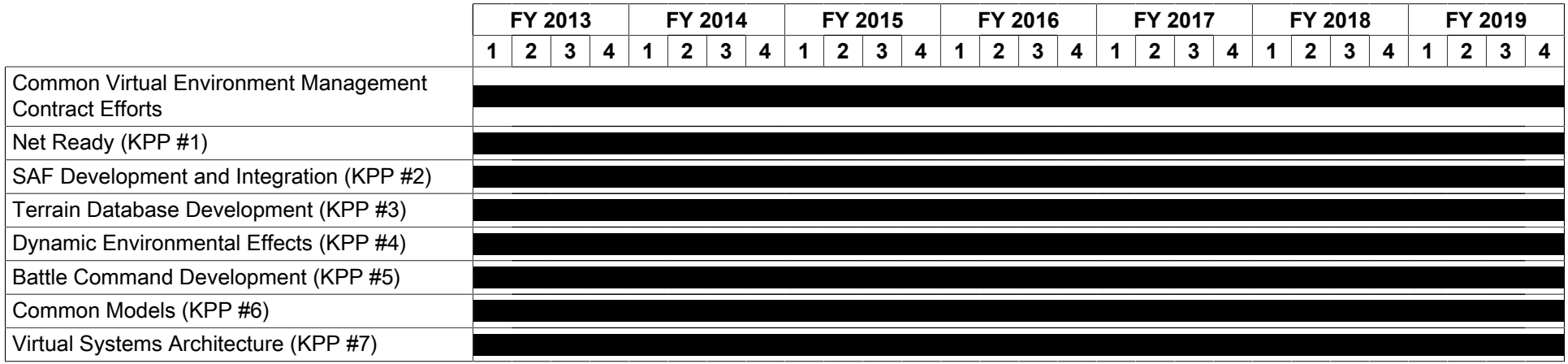

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 582 / *Synthetic Envir Core*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Common Virtual Environment Management Contract Efforts	4	2011	1	2021
Net Ready (KPP #1)	1	2013	1	2021
SAF Development and Integration (KPP #2)	2	2006	1	2021
Terrain Database Development (KPP #3)	1	2008	1	2021
Dynamic Environmental Effects (KPP #4)	1	2008	1	2021
Battle Command Development (KPP #5)	1	2008	1	2021
Common Models (KPP #6)	1	2008	1	2021
Virtual Systems Architecture (KPP #7)	1	2011	1	2021

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*				Project (Number/Name) 585 / *Aviation Combined Arms Tactical Trainer*			
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
585: *Aviation Combined Arms Tactical Trainer*	-	2.298	3.826	11.671	-	11.671	-	4.677	3.936	7.723	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The Aviation Combined Arms Tactical Trainer (AVCATT) is Army Aviation's only Collective Training System of Record for Active, Reserve and Army National Guard Aviation Units. AVCATT enables unit collective and combined arms air-ground training for AH-64, UH-60, CH-47, and OH-58 aircrews within the Live, Virtual, Constructive, & Gaming (LVC-G) Integrated Training Environment (ITE). The AVCATT also supports the training of Non-Rated crew members in crew coordination, flight, aerial gunnery, hoist and slingload related tasks via the Non-Rated Crewmember Manned Module (NCM3); which can be linked to AVCATT's UH-60 and CH-47 cockpit configurations to support a unit's specific Mission Training Requirements.

FY 2015 base funding of $11.671 million will design, develop and test new capabilities to enhance training when using the AVCATT and NCM3 in combined mode, including improved communications, hoist operations, slingload operations, visual realism improvements, and enhanced After Action Review capabilities. It will also design new interfaces required for interoperability with Mission Command Systems (MCS) and Contemporary Operating Environment (COE) compliance within the Realtime/Safety Critical/Embedded Computing Environment (CE). It will also design new interfaces and protocols for a Voice Communication System Upgrade to remain synchronized with improvements to tactical radios for Rotary Wing Aviation (RWA) platforms.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Aviation Combined Arms Tactical Trainer (AVCATT) program.	2.298	3.826	11.671
Articles:	-	-	-
Description: Continue EMD phase contract activities for the AVCATT program.			
FY 2013 Accomplishments: Developed the capability to transmit and receive Unmanned Aerial System (UAS) video feeds to/from the AVCATT helicopter platforms in support of Manned/Unmanned Teaming (MUM-T) Collective training requirements defined in the Capabilities Production Document (CPD). Research, design, and prototype alternate display solutions for the AVCATT visual system to improve quality and reliability while reducing life cycle costs.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 585 / *Aviation Combined Arms Tactical Trainer*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Design, develop, and test dynamic terrain capabilities for the AVCATT system to improve the simulated battlefield training capabilities for the Aviator. ***FY 2014 Plans:*** Design new capabilities to enhance training when using the AVCATT and NCM3 in combined mode, including improved communications, hoist operations, slingload operations, and visual system realism improvements. ***FY 2015 Plans:*** Design, develop, and test new capabilities to enhance training when using the AVCATT and NCM3 in a combined mode. Develop aerial gunnery training capabilities in NCM3, per CPD requirements. Design new interfaces required for interoperability with Mission Command Systems (MCS) and COE compliance within the Realtime/Safety Critical/Embedded Computing Environment. Design, develop, and test new interfaces and protocols for a Voice Communication System Upgrade to remain synchronized with improvements to tactical radios for the AVCATT RWA platforms.			
Accomplishments/Planned Programs Subtotals	2.298	3.826	11.671

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OPA3: *OPA3, Appropriation NA0173 Aviation Combined Arms Tactical Trainer*	11.962	34.913	14.440	-	14.440	37.008	35.752	37.541	38.233	Continuing	Continuing

Remarks

D. Acquisition Strategy

Small Business Set Aside for new development efforts including AVCATT/NCM3 combined mode design, development, testing and future interoperability requirements.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	Project (Number/Name) 585 / *Aviation Combined Arms Tactical Trainer*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AVCATT Manned Unmanned Teaming (MUM-T)	C/CPFF	Applied Visual Technologies : Orlando, FL	0.000	1.880	Aug 2013	-		-		-		-	-	1.880	-
AVCATT Visual Display Research	C/CPFF	Batelle Memorial Institute : Columbus, OH	0.000	0.318	Dec 2013	-		-		-		-	-	0.318	-
AVCATT Dynamic Terrain	SS/CPFF	TBS : TBS	0.000	0.100	Jun 2014	-		-		-		-	-	0.100	-
AVCATT NCM3 Development	C/CPFF	TBS : TBS	0.000	-		3.826	Mar 2014	4.934	Feb 2015	-		4.934	-	8.760	-
AVCATT Interoperability	C/CPFF	TBS : TBS	0.000	-		-		2.788	May 2015	-		2.788	-	2.788	-
AVCATT Voice Communication Upgrade	C/TBD	TBS : TBS	0.000	-		-		2.767	Mar 2015	-		2.767	-	2.767	-
AVCATT Training Effectiveness Analysis	C/TBD	TBS : TBS	0.000	-		-		1.182	Mar 2015	-		1.182	-	1.182	-
		Subtotal	0.000	2.298		3.826		11.671		-		11.671	-	17.795	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	2.298		3.826		11.671		-		11.671	-	17.795	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 585 / *Aviation Combined Arms Tactical Trainer*

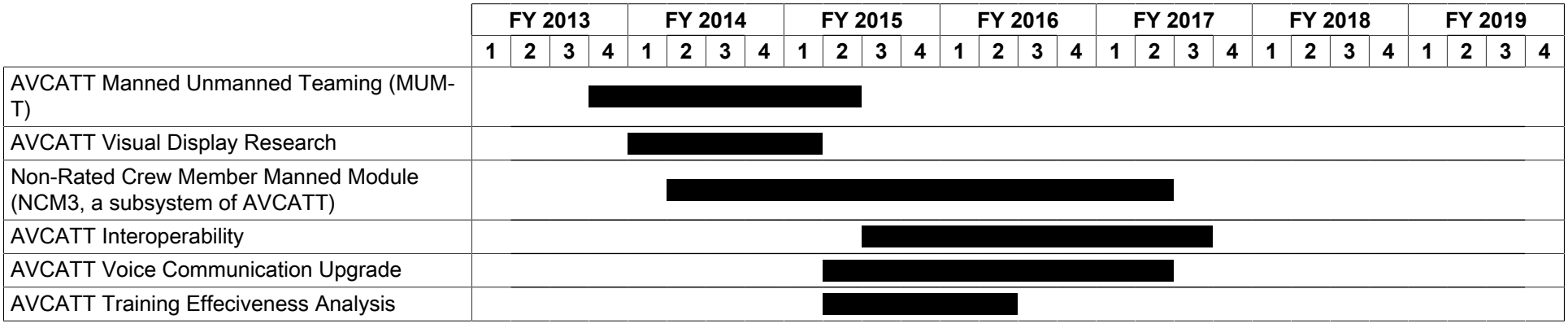

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604780A / *Combined Arms Tactical Trainer (CATT) Core*	**Project (Number/Name)** 585 / *Aviation Combined Arms Tactical Trainer*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
AVCATT Manned Unmanned Teaming (MUM-T)	4	2013	2	2015
AVCATT Visual Display Research	1	2014	1	2015
Non-Rated Crew Member Manned Module (NCM3, a subsystem of AVCATT)	2	2014	2	2017
AVCATT Interoperability	3	2015	3	2017
AVCATT Voice Communication Upgrade	2	2015	2	2017
AVCATT Training Effeciveness Analysis	2	2015	2	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	191.065	99.947	105.279	-	105.279	118.096	116.571	113.470	113.653	Continuing	Continuing
DU8: *Systems Under Evaluation (SUE) Analysis*	-	40.565	-	-	-	-	-	-	-	-	-	40.565
DU9: *System Of Systems Engineering*	-	9.017	-	-	-	-	-	-	-	-	-	9.017
DV1: *BCT Equipping Integration And Experimentation*	-	141.483	-	-	-	-	-	-	-	-	-	141.483
DY3: *NIE Test & Evaluation*	-	-	14.992	24.785	-	24.785	17.621	16.685	14.800	14.823	Continuing	Continuing
DY4: *Network Integration Support*	-	-	15.792	20.418	-	20.418	18.549	17.569	15.589	15.613	Continuing	Continuing
DY5: *Production/Field Coordination for Capability Sets*	-	-	4.198	2.802	-	2.802	4.953	4.681	4.145	4.155	Continuing	Continuing
DY6: *Brigade and Platform Integration Support*	-	-	44.576	43.606	-	43.606	52.996	54.940	58.807	58.895	Continuing	Continuing
DY7: *Army Systems Engineering, Architecture & Analysis*	-	-	14.392	9.642	-	9.642	16.913	16.016	14.209	14.231	Continuing	Continuing
DZ6: *Army Integration Management & Coordination*	-	-	5.997	4.026	-	4.026	7.064	6.680	5.920	5.936	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The FY 2013 President's Budget submission was broken down into three projects to support the initial concept of execution of the Army's Agile process, they are:

Project DV1; BCT Equipment Integration and Experimentation, in FY 2013 it provided funds for development of the NIE architecture, Lab Based Risk Reduction, systems integration engineering for the NIE of both platforms and the Network, A-Kit development and vehicle integration, coordination of the NIE events, risk reduction activities, NIE test activities and data collection and analysis, and troubleshooting/fixing integration and network problems in support of the Network Integration Evaluation events.

Project DU8; Systems Under Evaluation Analysis and Integration, in FY 2013 it provided funding for the Industry and government programs that meet or exceed known technological gaps and funds prototypes (if required), FSR support, and platform and network integration into the Army's Network Integration Evaluation (NIE) Events.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army	Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604798A *I Brigade Analysis, Integration and Evaluation*

Project DU9; System of Systems Engineering, in FY 2013 in provided for the development of the Army's Baseline System of System Architecture and associated standards and guidelines, the supporting System of Systems Engineering to develop the standards and guidelines for the Army and the development and implementation of the Army's Common Operating Environment (COE) standards and validation and verification of systems against these standards.

The FY 2015 funding supports all of the efforts to plan and execute NIE 15.2 and 16.1 and Tactical Capability Set Synchronized Fielding Events. The specific evaluation requirements for these NIEs will be derived from the gaps identified by the users in the Afghanistan Theater and the lessons learned from NIEs 13.2 and 14.1. Current technologies are selected for integration into each Tactical Capability Set based upon its operational maturity relative to the Army's needs and its cost and schedule.

Project DY3; NIE Test & Evaluation, in FY 2015, it provides for the planning and conduct of detailed experiments (NIE evaluations), tests and evaluation of potential Network, Software and Hardware systems for procurement and integration into the Army's Warfighter system. It includes all test support activities such as Blade time for Helicopters, Satellite time for the network, med evacuation, and protection for the soldier.

Project DY4; Network Integration Support, in FY 2015, it provides for Network Integration of all Network Systems Under Evaluation (SUE) (industry and government) Hardware/Software into existing Communications Electronics Research, Development and Engineering Center (CERDEC) System Integration Laboratories at Aberdeen Proving Ground (APG) to simulate the Brigade Network for NIE and determine if new capabilities successfully resolve know gaps. It includes the refinement of US Army Training and Doctrine Command (TRADOC) developed requirements and development of the sources sought, Request For Proposal (RFP) and Horseblanket in support of upcoming NIE Events. It also conducts evaluations in the labs of industry and government SUEs to ensure the systems fulfill known capability gaps and are integrated into the network prior to going to the field base evaluation. Provides industry feedback of performance in the Lab and Network. Lab Based risk reduction is also funded by this line to improve Network performance prior and when in the field. It also includes any hardware and Field Service Representative (FSR) support required to support the lab based integration and risk reduction,

Project DY5; Production/Fielding Coordination for Tactical Capability Sets, in FY 2015, it provides for the development and coordination of Programs to produce, integrate, and field the NIE evaluated Brigade improvements to the Brigade Combat Teams (BCTs). This effort does not fund the production, or integration, or fielding of the Tactical Capability Set, but it does fund the coordination of requirements and integration along with scheduling of all activities for the Army through the supporting Program Executive Offices (PEOs), Program Managers (PMs) and Research, Development and Engineering Command (RDECOMs).

Project DY6; Brigade and Platform Integration Support, in FY 2015, it provides for the integration of the lab developed network solution onto soldier and vehicle systems to ensure an integrated network across the Brigade and battle field and the facility support requirements to complete these efforts. This includes contractor, FSR and Government support to conduct vehicle integration along with integration of the network and vehicles into a Brigade Combat Team (BCT) for the NIE test. This project funds the hardware and FSR support from contractors to support integration and evaluation. This includes the support for the four phases of integration and test evaluation conducted at the NIE. It also includes de-modification of vehicles after completion of the event. Provides industry and Army leadership feedback of performance from the NIE to decide what systems to procure and field as part of the Tactical Capability Set.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army	Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604798A *I Brigade Analysis, Integration and Evaluation*

Project DY7; Army System Engineering, Architecture & Analysis, in FY 2015, it provides for basis of all Agile Process Planning and implementation. This includes the System of Systems SOS engineering and analysis that creates the Army top level architectures, Basis of Issue Plan (BOIP), and design that feed the planned Tactical Capability Sets, NIE plans, and Army Program Objective Memorandum (POM).

Project DZ6; Army Integration Management & Coordination, in FY 2015, it provides for all "shared" functions (Human resources, Budget development and executions, Acquisition, Operations, Program Coordination, Facilities management) and headquarters functions that supports the technical aspects of the Network integration, Platform integration, Brigade Integration and the Production Integration and coordination and synchronized fielding teams.

Execution of the above projects is in accordance with the Army Acquisition Executive's NIE and TCS Business Execution Ground Rules dated August, 1, 2012.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	214.270	193.748	205.000	-	205.000
Current President's Budget	191.065	99.947	105.279	-	105.279
Total Adjustments	-23.205	-93.801	-99.721	-	-99.721
• Congressional General Reductions	-17.207	-0.053			
• Congressional Directed Reductions	-	-93.748			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-5.998	-			
• Adjustments to Budget Years	-	-	-99.721	-	-99.721

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DU8 / *Systems Under Evaluation (SUE) Analysis*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DU8: *Systems Under Evaluation (SUE) Analysis*	-	40.565	-	-	-	-	-	-	-	-	-	40.565
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

This project (DU8) was created to support the Army's Brigade Analysis, Integration and Evaluation mission. The FY 2013 President Budget submission reflects Program Element (PE) 604798A broken down into three projects; DV1, DU8, and DU9. Beginning with FY 2014 Presidents Budget submission this PE is now broken down into six projects to better align the funding with the progressive changes to the development and execution of both Network Integration Events (NIE) and Tactical Capability Set-Synchronized Fielding (CS-SF) missions. These projects are: DY3; NIE Test Evaluation, DY4; Network Integration Support, DY5; Production /Fielding Coordination for Capability Sets, DY6; Brigade and Platform Integration Support, DY7; Army System Engineering, Architecture & Architecture & Analysis, and DZ6; Army Integration Management & Coordination. Beginning in FY 2014 the activities within this project are divided among all of the new Projects as outlined above.

A. Mission Description and Budget Item Justification

This project supports the integration of both industry and DOD emerging and existing technologies into the current Army force structure. It includes all integration and test support efforts for the Network Integration Evaluation (NIE)s, which includes; Lab Based Risk Reduction for Network Integration, Platform Integration of Network Components, Software loading exercises and checkout (LOADEX), and comprehensive communication exercises (COMMEX), culminating in the Army's NIE. The specific evaluation requirements for these NIEs will be derived from the gaps identified by the user based on lessons learned from Iraq, and Afghanistan and previous NIEs.

For industry SUEs, this project will integrate the industry SUE into the Network and onto a platform, if required. It will also purchase any additional hardware and support above and beyond the contractors proposed support. For Government SUEs, this project funds integration support that consists of FSRs to support integration and the test. If the NIE program requires additional prototypes above and beyond the Program of Record it will also purchase this equipment. This project also funds keeping the Network baseline up to date so that integration is always into the baseline network.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Systems Under Evaluation (SUE) Integrations	40.565	-	-
Articles:	-	-	-
Description: Funding is provided for the following effort: To support integration of both industry and DOD emerging and existing technologies into the current Army force structure. This includes all integration support and test support for 13.2 and 14.1 SUEs.			
FY 2013 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DU8 / *Systems Under Evaluation (SUE) Analysis*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
This effort included working with TRADOC and G-3/5/7 directorates to finalize the operational gaps and then to develop either a sources sought, Government Call for Mature Solutions or Requests For Proposals (RFP)s. This effort supported competitive select of industry and government SUEs to resolve identified gaps. This also included the development of Scope of work, evaluation and down-selection criteria and then evaluation of any and all sources sought and RFP proposals to include black box testing to verify that the hardware/software performs to the requirement. This effort included the management of the down-selections for each event, delivery of the final horseblanket architecture and design for each NIE. It also includes all program, information, security, business, schedule, personal management, network integration, evaluation, and reporting efforts required to support phases 1-3 of the NIE process. This effort also included the management and implementation of phase VI system recommendations and execution across the ASA(ALT) PEO community. Provided funding to support integration and evaluation, twice a year, of approximately 40 - 50 industry and government technologies which were being selected as Systems Under Evaluation (SUE) for participation into the Army's Network Integration Evaluation (NIE). These funds covered the NIE participant's (Emerging and existing technologies, Program Managers and contractors) costs for travel, and shipment of equipment, Contractor Field Service Representatives (CFSRs) and Government Subject Matter Experts (GSMEs) required to support integration activities, integration A-kit development, and the purchase of additional prototypes when needed to effectively complete detailed evaluations of the complete network architecture. Includes costs for development and fabrication of integration hardware and software. The participating units then deployed to the tactical training/evaluation area, White Sands Missile Range (WSMR) to complete a comprehensive rehearsal (4 weeks) in preparation for the detailed Network Integration Evaluation (2 weeks) event. NIE 13.2 included eight Systems Under Evaluation (SUEs) and four Systems Under Test (SUTs), one of which was an Acquisition Category 1D program. The results of NIE 13.2 recommended three SUTs and two SUEs for fielding. NIE 14.1 included four SUTs and nineteen SUEs; the Decision Point 3 for NIE 14.1 is scheduled to be held February 2014.			
Accomplishments/Planned Programs Subtotals	40.565	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

During the planning of NIE 11.1 through NIE 13.1 the government will focus on identifying and evaluating systems against the Army's known gaps and will utilize a Sources Sought solicitation to invite industry's participation in each NIE, which results in industry's participation at No Cost to the government. Beginning with NIE 13.2 the government will continue to focus on identifying and evaluating against the Army's identified gaps. For FY 2013 and out the government will use one of two acquisition strategies. First the government will issue a sources sought request to fill the known gaps. The government will then use either an existing government contract or an Request for Proposal (RFP) as the means of solicitation for industry's participation in the NIE, and will also include the participant's production options.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DU8 / *Systems Under Evaluation (SUE) Analysis*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DU8 / *Systems Under Evaluation (SUE) Analysis*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
LBRR SUE HW & Integration Support	TBD	Various Note:1 : TBD	0.000	5.244	Oct 2012	-		-		-		-	-	5.244	-
NIE SUE HW & Integration Support	TBD	Various Note: 1 : TBD	0.000	35.321	Oct 2012	-		-		-		-	-	35.321	-
		Subtotal	0.000	40.565		-		-		-		-	-	40.565	-

Remarks

Note: 1
- All funding executed form SoSI (Warren)
- Program Activities performed at FT Bliss (TX), White Sands Missile Range (NM), Aberdeen Proving Ground (MD), TACOM (Warren MI)
- Program Integration support through various PMs, PEOs, RDECOM, and a multitude of small support and industry contractors.

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	40.565		-		-		-		-	-	40.565	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DU8 / *Systems Under Evaluation (SUE) Analysis*

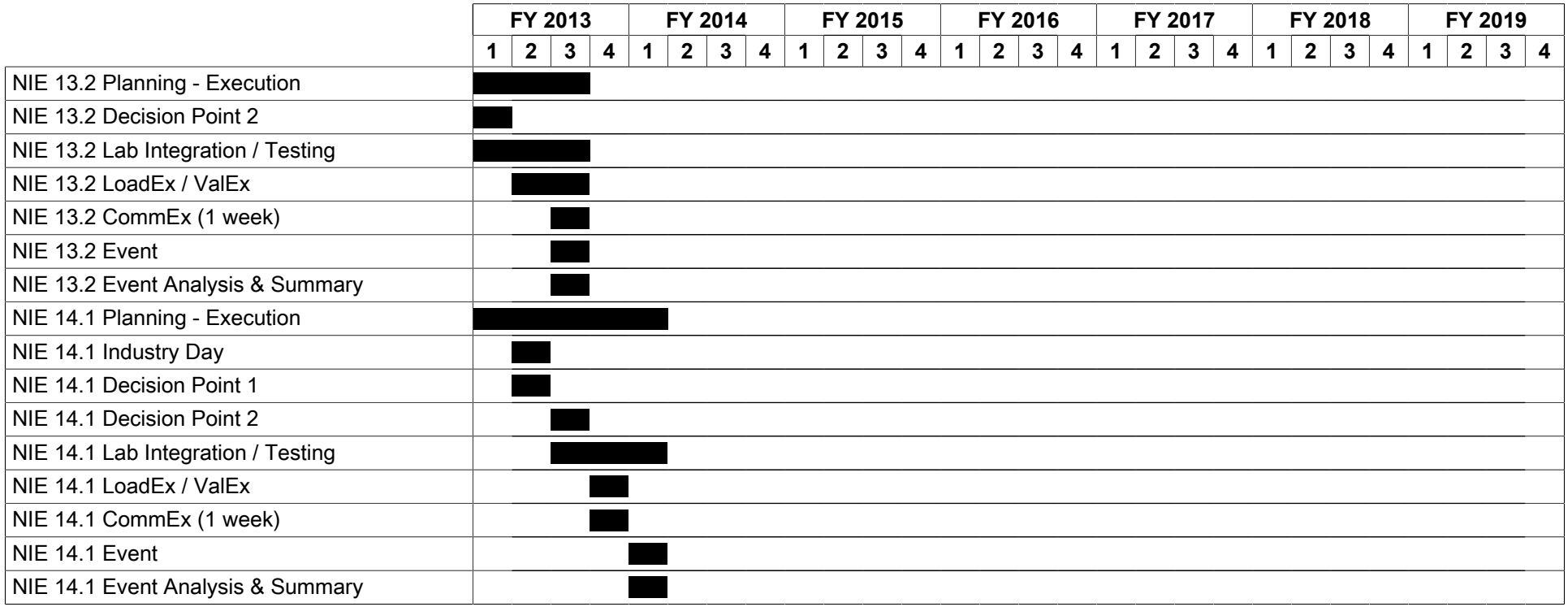

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
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Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 13.2 Planning - Execution	2	2012	3	2013
NIE 13.2 Decision Point 2	1	2013	1	2013
NIE 13.2 Lab Integration / Testing	1	2013	3	2013
NIE 13.2 LoadEx / ValEx	2	2013	3	2013
NIE 13.2 CommEx (1 week)	3	2013	3	2013
NIE 13.2 Event	3	2013	3	2013
NIE 13.2 Event Analysis & Summary	3	2013	3	2013
NIE 14.1 Planning - Execution	3	2012	1	2014
NIE 14.1 Industry Day	2	2013	2	2013
NIE 14.1 Decision Point 1	2	2013	2	2013
NIE 14.1 Decision Point 2	3	2013	3	2013
NIE 14.1 Lab Integration / Testing	3	2013	1	2014
NIE 14.1 LoadEx / ValEx	4	2013	4	2013
NIE 14.1 CommEx (1 week)	4	2013	4	2013
NIE 14.1 Event	1	2014	1	2014
NIE 14.1 Event Analysis & Summary	1	2014	1	2014

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*				Project (Number/Name) DU9 / *System Of Systems Engineering*			
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
DU9: *System Of Systems Engineering*	-	9.017	-	-	-	-	-	-	-	-	-	9.017
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

This project (DU9) was created to support the Army's Brigade Analysis, Integration and Evaluation mission. The FY 2013 President Budget submission reflected Program Element (PE) 604798A broken down into three projects; DV1, DU8, and DU9. Beginning with the FY 2014 Presidents Budget submission this PE is now broken down into six projects to better align the funding with the progressive changes to the development and execution of both Network Integration Events (NIE) and Tactical Capability Set-Synchronized Fielding (CS-SF) missions. These projects are: DY3; NIE Test Evaluation, DY4; Network Integration Support, DY5; Production / Fielding Coordination for Capability Sets, DY6; Brigade and Platform Integration Support, DY7; Army System Engineering, Architecture & Architecture & Analysis, and DZ6; Army Integration Management & Coordination. Beginning in FY 2014 the activities within this project are divided among all of the new Projects as outlined above.

A. Mission Description and Budget Item Justification

This project provides the Army's leadership and materiel developers with the necessary system of systems analysis defining engineering and architectural products to manage and shape the Army's materiel portfolio; to ensure Systems Engineering discipline across the Materiel developer community throughout the acquisition life cycle and grow the System Engineering capability within the Army through education, engineering policy, guidelines and adoption of best industry practices. Create an environment that empowers the Acquisition Community through an unsurpassed agile, collaborative, productive, lean and trusted information enterprise.

This project establishes the capability to develop & deliver the architecture products that facilitate analysis & trades and provide timely relevant information to inform decision makers and guide the Army's efforts. This project provides for the development and implementation of a comprehensive set of system architectures & analysis results that can shape the Army's priorities and processes, and ensures that the analysis & architecture development capability across ASA (ALT) is cohesive within the Agile process. It provides for the overarching view of the Army's Reference System of Systems Architecture requirements and organizational responsibility, it provides for single authority within ASA (ALT) for Reference System Architecture oversight to manage governance and approvals of emerging designs, it also ensures the linkage of architecture products to events, processes, and customer requirements. It further establishes Reference Architectures for all Key components of the Network Architecture and all Army formations and installations, across time, that form the basis for representing and communicating the Army's programmed plan to Program Executive Officers / Program Managers (PEOs/PMs). It also enables trades and analyses that use these architecture data to support informed systems acquisition decisions across the life cycle. The data is organized in order to support views and analysis across organizational, portfolio, and budgeting bins.

In early 2012 the U.S. Army ASA(ALT) formally unveiled its Common Operating Environment (COE) Implementation Plan designed to help industry partners and Army program managers by offering an approved set of network standards, processes and products, designed to enable them to quickly and efficiently develop and field interoperable software capabilities. The plan helps establishes and makes public Army Network technical standards, which any sized vendor can understand, internalize

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
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and build towards. This will help increase competition and help lower software and hardware integration burden and costs. The implementation plan is a living document that will remain flexible as the Army continues to evolve its network standards and fielding methods. The Army will continuously seek industry and service input as they transition to the COE. This project provides for technical support to oversee the execution of the COE Implementation plan, COE Orchestration, Verification and Validation (V&V), and Governance. It also provides for the development and execution of COE integration policies and procedures, the development and implementation of backwards capability testing, integration checklists and their verification, test hardware development and implementation support. Provides for COE architecture validation, design baseline validation, and the verification of COE reference architecture compliance. Provides for the accreditation, certification and refinement of test plans and events.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Army Systems Engineering & (COE) Development/Validation to Provide Technical Support for the Execution of the Army System Engineering and Architecture in COE Implementation	9.017	-	-
System Engineering and Arch	-	-	-
Articles:			

Description: To provide technical support for the execution of the Army's Systems Engineer Architecture for COE.

FY 2013 Accomplishments:
The funds provided: Technical support to oversee the execution of the COE Implementation plan, COE Orchestration, Governance, Cross-Cutting Capabilities Definition, and Implementation Plan. Updated, Software Build (SWB)/COE Configuration Control Board (CCB) and Test Support transition, Integrated Master Schedule, Government oversight of the Army's Strategic Software Improvement Program (ASSIP), Coordination with Army Staff, Technical Reference Model, Metrics for assessing compliance, Technical Advisory Board (TAB), Chief Engineer (CE) compliance, COE assessment criteria. Assessed systems during the System Under Evaluation (SUE) Technical Interface Meeting (TIM), System software configuration baseline data collection, and System software configuration baseline updates, Control Point/Interface Definition and Agreements, Afghan Mission Network, Ops/Intel Convergence, Transport Convergence. Provided analytical support to Network Synchronization Working Group, Joint Interoperability & Mission Thread Architecture Office of Secretary Defense (OSD) Director Defense Research and Engineering (DDR&E), Integrated Base Defense, Basing and Basing Computing/Communications Analysis. Hosted Based Security System (HBSS), GNEC Implementation Plan, Radio Procurement Requests, and Organizing & Synchronizing of the Architecture space. Established Technical foundation for Army Network Architecture. Conducted Network Architecture Analysis for BCT formations, SoS Engineering Construct for the Network, Organizing the SoS Engineering trade space for Platforms, Standards for the Platforms (VICTORY & FACE), Size Weight and Power (SWAP) working group, Software Blocking (SW), and NIE Gaps. Conducted, Candidate Assessment for Upcoming NIE, and Technologies assessment, of Systems Engineering Plan (SEP) policy, and Program Protection Plan (PPP). Developed and Reviewed reviews, Reliability policy technical support, Standards & Speciation adoption across ASA(ALT), (OSD/Joint), the Development Planning model, Integrated Base Defense, and Basing Pilot) documents. It also provided for the development and execution of COE integration policies and procedures, the development and implementation of backwards capability testing, integration checklists and their verification,

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DU9 / *System Of Systems Engineering*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
test hardware development and implementation support. The development and effective utilization of emulator and integration tools. Provided for COE/CE architecture validation, design baseline validation, and the verification of COE reference architecture compliance. The verification of COE critical enabler implementation, conducting risk assessments and analysis, accreditation and certification process refinement, and verification of technical test harness and tool development. Provides for the accreditation, certification and refinement of test plans and events. FY13Additional Accomplishments: • Co-led Capability Set Management Board Working Group Established and led the Network Capability Set (NCS) Architecture Integrated Product Team (IPT) • Delivered the LandWarNet (LWN) NCS System of Systems (SoS) Reference Architecture (RA) & Specification (Coordinating Draft) • Delivered the LWN NCS Institutional SoS RA (Coordinating Draft) • Delivered IBD OCONUS Base Camps RA FY16 (Update) • Delivered IBD OCONUS Base Camps RA FY17 (Annual) • Delivered IBD CONUS Installations RA FY16 (Update) • Delivered IBD CONUS Installations RA FY17 (Annual) • Delivered Communications and Computing Infrastructure (CCI) OCONUS Base Camps RA FY16 (Annual) • Delivered Integrated Metrics Hierarchy for Base Camps (Joint product of ASA(ALT) / TRADOC / Office of Army Chief Engineer) • Achieved 3-Star Verification of the Communications and Computing Infrastructure (CCI), Integrated Base Defense (IBD) and Base Infrastructure (BI) OCONUS Base Camps Operational Architecture (OA) by Architecture Integration and Management Division (AIMD) of Army Capabilities Integration Center (ARCIC) of Training & Doctrine Command (TRADOC)			
Accomplishments/Planned Programs Subtotals	9.017	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Not applicable for this item.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Architecture	TBD	ASA(ALT), : Various Locations	0.000	1.824	Dec 2012	-		-		-		-	-	1.824	-
System Engineering and COE	TBD	ASA(ALT), : Various Locations	0.000	7.193	Dec 2012	-		-		-		-	-	7.193	-
		Subtotal	0.000	9.017		-		-		-		-	-	9.017	-

	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	9.017		-		-		-		-	-	9.017	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
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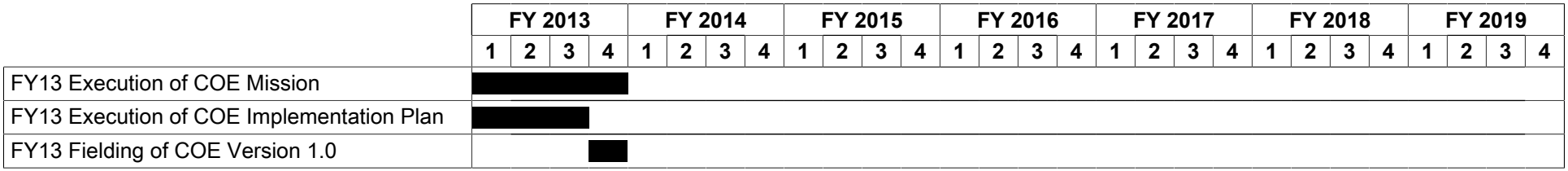

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
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Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
FY13 Execution of COE Mission	1	2013	4	2013
FY13 Execution of COE Implementation Plan	1	2013	3	2013
FY13 Fielding of COE Version 1.0	4	2013	4	2013

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
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COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
DV1: *BCT Equipping Integration And Experimentation*	-	141.483	-	-	-	-	-	-	-	-	-	141.483
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

This project (DV1) was created to support the Army's Brigade Analysis, Integration and Evaluation mission. The Program Element 604798A is broken into three projects; Project DV1, includes all System of Systems Integration (SoSI) management effort and associated integrated support required to build the Brigade Network, integrate these capabilities on a brigade's tactical vehicles, and then evaluate the operational effectiveness of this brigade. Project DU8 provides funding for industry and government Systems Under Evaluation (SUEs) to bring new technologies to integrate into the brigade. Project DU9 funds the Army's development of the Division and Brigade architecture and standards to enable integration, commonality and compatibility. Project DV1's, R2a Exhibit "Accomplishments/Planned Program" has been restructured to better represent the activities required for network integration, platform integration, brigade integration, brigade evaluation, and eventual production and fielding.

A. Mission Description and Budget Item Justification

This project includes government and contractor efforts to integrate and validate that the Army is fielding platforms, components and software that are integrated together to provide increased capabilities for the soldier that are supportable and trainable. This project includes efforts associated with designing the Army's integrated network and associated architecture, developing the infrastructure and test plans, conducting the integration and risk reduction activities, evaluating the potential solutions, and determining the final solution set for the next Capability Package. It includes all integration and test/evaluations efforts for the Network Integration Evaluation (NIE) 13.2 and 14.1 events, which includes Lab Based Risk Reduction (LBRR), Network Integration, Software Loading Exercises (LOADEX) and checkout, comprehensive Communication Exercises (COMMEX), and culminates in the Army's Network Integration Evaluation (NIE) field event. The specific evaluation requirements for these NIEs are derived from the gaps identified by the users in the Afghanistan Theater and lessons learned from previous NIEs.

The Agile Process consists of the following phases, which are coordinated and executed by the System of Systems Integration (SoSI) Directorate, Brigade Modernization Command (BMC) and Army Test and Evaluation Command (ATEC): In Phase 0, Army Training and Doctrine Command (TRADOC) defines near-term gaps in current operational capabilities using existing Operational Needs Statements and relevant assessments from ongoing and past analyses. This analysis will be the basis for requirement sets for future Capability Packages. Network test and evaluation will focus on improving and integrating emerging and existing technologies to minimize existing operational gaps. During Phase I, SoSI solicits potential solutions from existing Army programs, tech base programs, and industry. Also during this phase, SoSI obtains buy-in from stakeholders, funding and support, establishes initial objectives, solidifies architecture objectives, and establishes the viable candidate list for the NIE. During Phase II, SoSI compiles the list of potential solutions that could meet the identified gaps and begins to develop the integration and testing concepts for the next capability package. Phase III includes the coordinated efforts between BMC, ATEC and SoSI to finalize the brigade architecture, integration and test plans, training materials and combat mission evaluations. Phase III also includes the initial integration phase where industry and Department of Defense

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
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(DoD) network hardware and software are integrated and initially evaluated for follow-on consideration at a government integration and test facility located at Aberdeen Proving Ground (APG). The results of this initial evaluation determine which industry and DoD SUEs continue in the NIE process. It also develops the initial network configuration that will be used in execution of the NIE field event. During Phase IV, SoSI details plans and executes the integration of all hardware and software into the brigade network. The integration is validated and verified through the LBRR process. In Phase V, SoSI executes the in-depth NIE field event. Results of the NIE field event address and answer senior Army leadership's questions about force makeup and effectiveness, and provides Army leadership recommendations for improving operational requirements and enhancing technical specifications. The results of Phase V are utilized during Phase VI, where the Army determines which systems to procure and field to improve the Army's Network.

This project includes the following government efforts: System of system architecture and design standards for the NIE, Brigade Combat Team (BCT) Integration to support the NIE (hardware and software), A-Kit development and fabrication to support network integration onto platforms, integration of program of record, and non-program of record equipment and systems (both hardware and software) into a single synchronized network, BCT simulation to determine solution sets to potentially fill gaps, BCT experimentation and testing to validate and verify the increased capability for the soldier, and BCT Synchronized Fielding (logistics and training). Based on feedback from integration and testing, SoSI provides input and changes to both operational requirements and technical specification for improved operational capabilities. This project includes support to other DoD agencies for joint programs and collaboration efforts with SoSI and Capability Package portfolio integration. The government effort includes cost for salaries, travel, overtime, training, supplies, facilities, and Information Technology (IT) support.

FY 2014 will continue the NIE gaps and evaluation process. For example, during NIE 13.1 there were 5 Systems Under Test (SUTs) and 24SUEs evaluated against one of the Army's nine NIE 13.1 gaps. Out of the 96 SUE candidates that responded to the solicitation for NIE 13.1, the number of systems evaluated were 5 Systems Under Test (SUTs) and 24 SUEs. The NIE 13.2 gaps are: (1) Commander's Applications for Mobile and Handheld Platforms, (2) Brigade S6 Staff Element Working Group, (3) Command Post Collaboration and Visualization, (4) Company Information Architecture, (5) Network Operations Visualized in the COP, (6) Aerial Layer Network - Air Ground Integration, (7) Cyber Electromagnetic (CEM) Staff Element, and (8) Integrated Employment of LandWarNet. The NIE 14.1 gaps are: (1) Brigade/ Battalion Company Command Post Mobility and Scalability, (2) Commander's Applications for Mobile and Handheld Devices , (3) Network Visualization on the Common Operational Picture, (4) Integrated LandWarNet, Installation Networks and Training Resources, (5) Aerial Layer Network Extension, (6) Air/Ground Network Architecture Roamers, (7) Low Overhead Products and Enablers for Home Station Small Unit Training, (8) Operational Energy – Monitor and Manage System Power, Supply and Demand, and (9) Operational Energy – Reduce Reliance on Petroleum Based Energy.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Test Experimentation	52.506	-	-
Articles:	-	-	-
Description: Funding is provided for the following effort:			
FY 2013 Accomplishments: Planned and conducted detailed experiments, tests and evaluations of 4 SUTs & 8 SUEs for NIE 13.2 and 4 SUTs and 19 SUEs for NIE 14.1which are potential Network, Software and Hardware systems for procurement and integration into the Army's Warfighter system. Completed test planning, coordination of requirements, assets planning, range planning and Soldier planning			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
for 4 key systems. Conducted test planning and management, which included coordination of requirements with Army Evaluation Command (AEC), Operational Test Center (OTC), and Developmental Test Command (DTC). This coordination included: development and procurement of modeling and simulation tools, instrumentation for data collection, maintaining facilities required for storing and maintaining equipment, and the facilities required to integrate capabilities, other test equipment, and REDFORCE systems. Conducted coordination for procuring range resources to include range time, range personnel, test engineering support, operators and subject matter experts on systems under evaluation. Included costs of management of the test/experiment and support all demonstrations experiments and tests. Included costs for distributed networking capability (i.e. DREN, I/O Range, circuits, etc) and other electronic infrastructure data transfer medias between APG, EPG, Ft. Bliss and White Sands Missile Range. Conducted coordination with AEC on the development of System Evaluation Plans (SEP) and Operational Milestone Assessment Reports (OMAR) and maintaining all data bases of evaluation analysis.			
Title: Integration Efforts: System of Systems Integration Directorate (SoSI)	59.049	-	-
Articles:	-	-	-
Description: Provides for SoSI staff and facilities that supports the following three main operations: Capability Package Future: planning for future NIE events. Capability Package Current: planning and execution of current NIE events. Headquarters management and oversight of the complete Agile process. ***FY 2013 Accomplishments:*** Conducted planning with Government and contract personnel to develop the overarching plans for the Network Integration Evaluation (NIE). NIE 13.2 included eight Systems Under Evaluation (SUEs) and four Systems Under Test (SUTs), one of which was an Acquisition Category 1D program. The results of NIE 13.2 recommended three SUTs and two SUEs for fielding. NIE 14.1 included four SUTs and nineteen SUEs. Completed Capability Package (CP) development which included defining what is affordable, and defining what could be realistically accomplished within the NIE window. Conducted requirements traces across the NIE portfolio via current requirements analysis, which identified gaps, overlaps and solution sets. Conducted Network Analysis for the NIE through completion of initial and high-level fidelity reviews. In support of the NIE: conducted sources sought procedures; Request for Proposal (RFP) activities; completed evaluation of submissions; planed vignettes; completed architecture analysis; developed and published what systems participated in the NIE as either a System Under Test (SUT) or a System Under Evaluation (SUE); and defined which Tech Base capabilities would also be included in the evaluation. Conducted data and configuration management. Conducted vehicle integration and Size, Weight, and Power (SWaP) analysis in support of the NIE. Completed development of standardization of hardware and software to optimize integration and interoperability. Developed Network Operations (NETOPS) through defined communications settings, interfaces, configuration, and includes Traffic Engineering (Shared Networks) for Software Services and Communications in order to maximize the use of bandwidth. Developed and managed an Integrated Master Schedule (IMS). Developed budget and managed budget execution. Developed Knowledge Management plans and procedures into the NIE. Conducted security planning and technology services. Conducted			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
logistics development and planning in support of the NIE. Coordinated with ASA(ALT) as they assigned Program Managers to be Non-Program of Record (POR) SUE sponsors and as they determine which POR/SUEs are in each NIE. Conducted daily operations and the execution of the NIE plan by maintaining a daily battle rhythm, synchronizing the calendar, conducting operational meetings, developing and submitting reports, tracking and maintaining accountability of all assets and the operational scheduling of assets and personnel. Developed the brigade level architecture from the top level plan provided by CP Future which included: the development of detailed network designs for the Systems Under Test and Systems Under Evaluation, which were assigned to the maneuver brigades during the Network Integration Evaluation. Conducted detailed planning and development of the architecture, vignettes, and information assurance. Established metrics and measures across the SUTs/ SUEs, and identified and implemented tools, data points and data collection measures for the NIE. Completed analysis and assessment of integrated experimental systems to determine optimal brigade configuration and the best solutions to fill the known requirements gaps. Conducted Information Assurance (IA), which includes planning/executing C4ISR/vehicle/platform integration, system checkout, and the coordination of system support between training and logistics assets. Coordinated Contractor Field Support Representatives (CFSRs) and Government Subject Matter Experts (GSME) to integrate hardware and software in support of the NIE events. Conducted infrastructure and facilities management, which included establishment/ maintenance and communications tracking during the NIE within a 7,600 square mile footprint, and maintain IT and equipment support within buildings disbursed over 7,600 square miles. Set up and maintained security access for over an estimated 7,000 soldiers, government, contracted and industry personnel during the NIE. Conducted international, integration and interoperability procedures. Conducted Information Assurance (IA), accreditation and certification, which included test and verification, coordination for Designated Approval Authority (DAA) approvals, and all technology services. Conducted After Action Reviews (AARs) to provide Army leadership recommendations for improving operational requirements and enhancing technical specifications. Conducted command and control and staff support for the complete Agile Process, which included Program Management, Administrative, Tech Services, IT, Graphics, Defense Travel System (DTS) support, Facilities Execution, Knowledge Management Execution, Security Execution, Business Management, and Acquisition Management. Developed and supported budget submittals and all program inquiries. Conducted personnel management support for the SoSI directorate. Coordinated all higher headquarters, congressional, and media inquiries, questions and audits.			
Title: Architecture Development and System Engineering	13.914	-	-
Articles:	-	-	-
Description: These funds provides for government and contractor support staff to System of Systems Integration Director (SoSI) to support their technological specialty in completing the Agile Process, NIE Architecture, NIE System Engineering, and NIE Systems Integration.			
FY 2013 Accomplishments:			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Provided for Subject Matter Expertise from other Army PEOs and PMs that support SoSI in conducting the following: Assisted in developing and defining what was affordable and could be realistically accomplished within the integration and test NIE window to support future Capability Sets. Conducted requirements traces across the various Brigade Combat Team (BCT) portfolios by conducting current requirements analysis, identifying gaps and overlaps, and identifying solution sets. In support of the Agile processes, participated in sources sought procedures, completing evaluation of submissions, planning vignettes, and completing architecture analysis. Assisted in the development of the Network Operations (NETOPS) by defining communications settings, interfaces, and configuration which included; Traffic Engineering (Shared Networks) for Software Services & Communications in order to maximize the use of bandwidth. Support Information Assurance (IA) coordination. Participated in System Under Test/ System Under Evaluation (SUT/SUE) network integration assessments and analysis for NIE. Supported the development of the brigade level network architecture for the NIE events. Supported the detailed planning of the architecture and vignettes, and information assurance plan. Supported the establishment of metrics and measures across the SUTs/SUEs, identified and implemented tools, data points and data collection measures for each NIE. Assisted in integrating hardware and software from different systems into existing platforms. Supported the development of test tools and instrumentation to support data analysis, Army force structure and recommendations. Supported Information Assurance which included; plan/execute, Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance, (C4ISR)/vehicle/platform integration, system checkout, and the coordination of system support between training and logistics assets. Coordinated Contractor Field Support Representatives (CFSRs) and Government Subject Matter Experts (GSME), to integrate hardware and software in support of each NIE event. Conducted Information Assurance accreditation and certification which included; test but verify, coordinating for Designated Approving Authority (DAA) approvals, and all technology services. Applied lessons learned from the previous test cycle to improve tools, processes and procedures, while informing the Requirements, Budgeting and Acquisition processes. FY13 Accomplishments: • Conducted Network Architecture Systems reviews in support of CS 13 and CS14 • Delivered CS13 Implementation Architectures for 4 Brigade Combat Teams (BCT)s • Delivered CS14 Design Book to support 8 BCTs and 2 Division Headquarters • Delivered CS14 Reference Architecture to support 8 BCTs and 2 Division Headquarters			
Title: NIE Infrastructure	16.014	-	-
Articles:	-	-	-
Description: Provides for Infrastructure, (facilities, Information Technology (IT) support, computers, Black Berries, program IA, etc.) at all SOSI locations. ***FY 2013 Accomplishments:*** Provided for setup, utilities, furniture, equipment and maintenance, of all facilities at Fort Bliss, TX (FTBX), White Sands Missile Range, NM (WSMR) , Warren, MI, Aberdeen Proving Ground, MD (APG), and Washington Capital Region. Included lease and			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DV1 / *BCT Equipping Integration And Experimentation*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
support maintenance of Government Service Administration (GSA)/Government Furnished Equipment (GFE) vehicles that support the NIE mission at FTBX/WSMR purchase or lease, integrate, and maintain telecommunications, routers, network management software, blackberries and PDAs, computers, Antennas, display screens, radios, and associated mounting hardware and cables to support NIE mission. Purchased and integrated computer software to support scheduling, Agile Request For Information (RFI) selection and evaluation process, budget process, integration analysis, modeling and simulation, network analysis, data collection, and analyzing test results. Included costs of facilities required to store/maintain/integrate capabilities on to military platforms.			
Accomplishments/Planned Programs Subtotals	141.483	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

During the planning of NIE 13.2 the government will focus on identifying and evaluating systems against the Army's known gaps and will utilize a Sources Sought solicitation to invite industry's participation in each NIE, which results in industry's participation at No Cost to the government. For FY13 and out the government will use one of two acquisition strategies; First the government will issue a sources sought request to fill the known gaps (utilizing current practices), or the government will use either an existing government contract or a Request for Proposal (RFP) as the means of solicitation for industry's participation in the NIE, the RFP and contracts this will include a participant's production option.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DV1 / *BCT Equipping Integration And Experimentation*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Network Design, Arch	TBD	Various Note:1 : TBD	0.000	8.652	Oct 2012	-		-		-		-	-	8.652	-
Network Integration	TBD	Various Note: 1 : TBD	0.000	17.141	Oct 2012	-		-		-		-	-	17.141	-
Platform/BDE Integration	TBD	Various Note: 1 : TBD	0.000	54.576	Oct 2012	-		-		-		-	-	54.576	-
Prod Coord and SYNC Fielding	TBD	Various Note: 1 : TBD	0.000	6.833	Oct 2012	-		-		-		-	-	6.833	-
SoSI SPM and Integration	TBD	Various Note:1 : TBD	0.000	17.246	Oct 2012	-		-		-		-	-	17.246	-
		Subtotal	0.000	104.448		-		-		-		-	-	104.448	-

Remarks

Note:1
- All funding executed from SoSI (Warren MI)
- Program Activities performed at Ft Bliss (TX), White Sands Missile Range (NM), Aberdeen Proving Ground (MD), TACOM (Warren MI)
- Program Integration support through various PMs, PEOs, RDECOM, and a multitude of small support and industry contractors.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Infrastructure Support	Allot	Various Note: 1 : TBD	0.000	6.156	Oct 2012	-		-		-		-	-	6.156	-
		Subtotal	0.000	6.156		-		-		-		-	-	6.156	-

Remarks

Note:1
- All funding executed from SoSI (Warren MI)
- Program Activities performed at Ft Bliss (TX), White Sands Missile Range (NM), Aberdeen Proving Ground (MD), TACOM (Warren MI)

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DV1 / *BCT Equipping Integration And Experimentation*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Event/Optempo	TBD	Various Note:1 : TBD	0.000	30.879	Oct 2012	-		-		-		-	-	30.879	-
		Subtotal	0.000	30.879		-		-		-		-	-	30.879	-

Remarks

Note:1
- All funding executed from SoSI (Warren MI)
- Program Activities performed at Ft Bliss (TX), White Sands Missile Range (NM), Aberdeen Proving Ground (MD)

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	141.483		-		-		-		-	-	141.483	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DV1 / *BCT Equipping Integration And Experimentation*

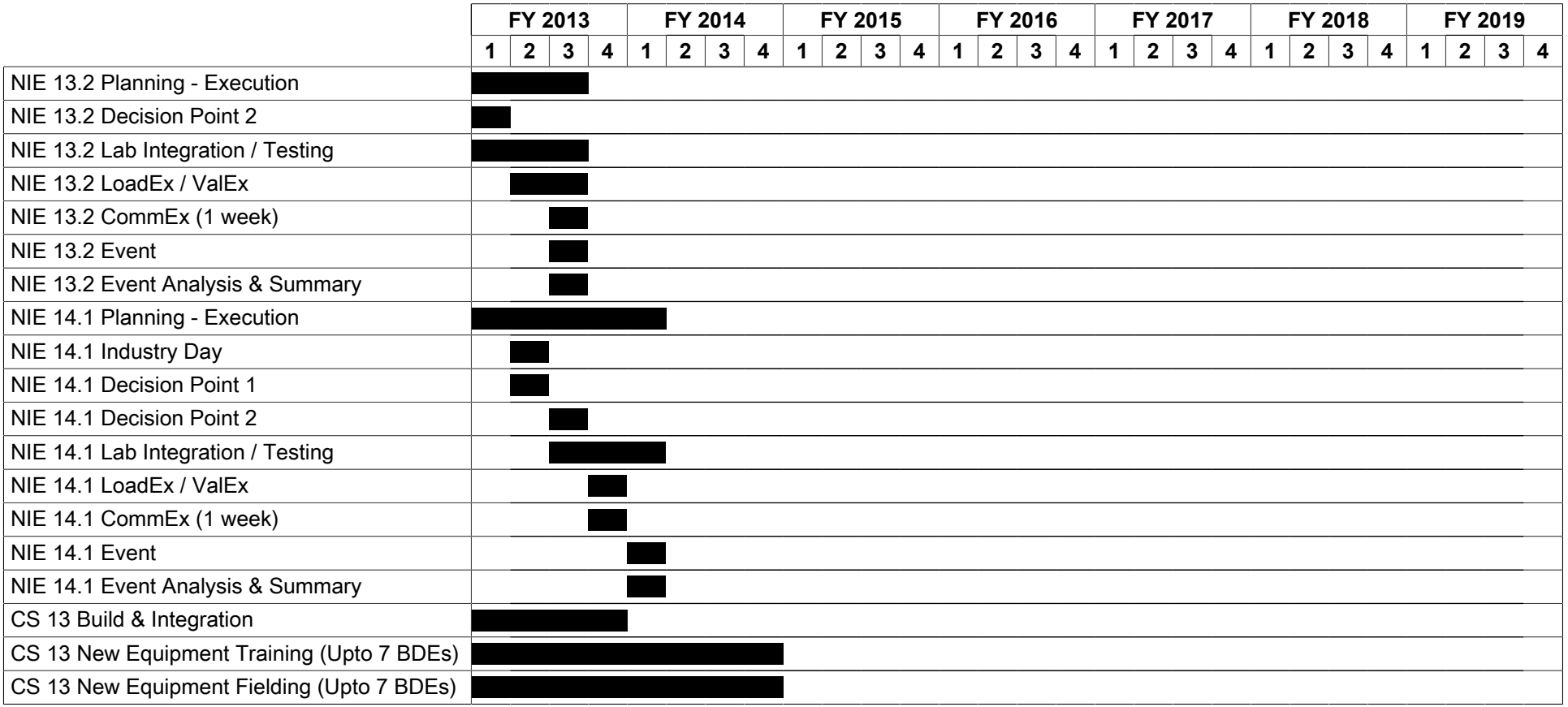

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DV1 / *BCT Equipping Integration And Experimentation*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 13.2 Planning - Execution	2	2012	3	2013
NIE 13.2 Decision Point 2	1	2013	1	2013
NIE 13.2 Lab Integration / Testing	1	2013	3	2013
NIE 13.2 LoadEx / ValEx	2	2013	3	2013
NIE 13.2 CommEx (1 week)	3	2013	3	2013
NIE 13.2 Event	3	2013	3	2013
NIE 13.2 Event Analysis & Summary	3	2013	3	2013
NIE 14.1 Planning - Execution	3	2012	1	2014
NIE 14.1 Industry Day	2	2013	2	2013
NIE 14.1 Decision Point 1	2	2013	2	2013
NIE 14.1 Decision Point 2	3	2013	3	2013
NIE 14.1 Lab Integration / Testing	3	2013	1	2014
NIE 14.1 LoadEx / ValEx	4	2013	4	2013
NIE 14.1 CommEx (1 week)	4	2013	4	2013
NIE 14.1 Event	1	2014	1	2014
NIE 14.1 Event Analysis & Summary	1	2014	1	2014
CS 13 Build & Integration	4	2012	4	2013
CS 13 New Equipment Training (Upto 7 BDEs)	1	2013	4	2014
CS 13 New Equipment Fielding (Upto 7 BDEs)	1	2013	4	2014

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY3 / *NIE Test & Evaluation*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DY3: *NIE Test & Evaluation*	-	-	14.992	24.785	-	24.785	17.621	16.685	14.800	14.823	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project supports test and evaluation portion of Phase V of the Army's Agile Network Integration process. The project will conduct the actual Network Integration Evaluation at White Sands Missile Range, NM which evaluates the integrated soldier and weapon systems operational impact on the brigade to include DOTMLPF. The results of Phase V will address and answer senior Army leadership's questions about force makeup and effectiveness and provides Army leadership recommendations for improving operational requirements and enhancing technical specifications. The Army leadership will then determine which systems to procure and field in future Tactical Capability Sets to improve the Army's Network and Brigade Capability. This project includes government and contractor efforts to develop detailed test scenarios and evaluation criteria for field based evaluations of the Brigade Combat Team, and then conduct the evaluations and verifications of the Brigade as part of that NIE. As part of the evaluation process, this project includes the development of the data collection plans, the instrumentation of the systems in the Brigade, and also the data collectors and analysis of the test results. This project also includes the development and distribution of the detailed, technical evaluation reports which provides the ability to identify which equipment; needs further development, is ready for NIE participation, or is ready for integration into a future Tactical Capability Set. Lastly, this project includes all the costs for supporting the test, such as, but not limited to; SATCOM satellite time, MEDEVAC support during test, helicopter blade time, POL and other test support materials, equipment, personnel and facilities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: NIE Test and Evaluation Costs	-	9.145	15.119
Articles:	-	-	-
Description: These funds provide for planning and conducting detailed experiments, tests and evaluations of potential Network, Software and Hardware systems for procurement and integration into the Army's Warfighter system.			
FY 2014 Plans: Complete test planning, coordination of requirements, assets planning, range planning and soldier planning. Conduct test planning and management which includes, conduct coordination of requirements with Army Evaluation Command (AEC), Operational Test Center (OTC), White Sands Missile Range (WSMR). This coordination includes; development and procurement of modeling and simulation tools, instrumentation for data collection, facilities required to store and maintain equipment, facilities required to integrate capabilities, other test equipment, and REDFORCE systems. Conduct experimentation, tests, and evaluation by coordinating and procuring range resources to include range time, range personnel, test engineering support, operators and subject matter experts on systems under evaluation. Includes costs of management of the test/experiment and support all demonstrations experiments and tests. Includes costs for distributed networking capability (i.e. Defense Research Engineering			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
(DREN), I/O Range, circuits, etc) and other electronic infrastructure data transfer medias between Aberdeen Proving Grounds (APG), Electronic Proving Grounds (EPG), FT Bliss and White Sands Missile Range. Conduct coordination with AEC on the development of System Evaluation Plans (SEP) and Operational Milestone Assessment Reports (OMAR) and maintain all data bases of evaluation analysis. ***FY 2015 Plans:*** For baselining events, complete test planning, coordination of requirements, assets planning, range planning, and soldier planning. Conduct test planning and management which includes, conduct coordination of requirements with Army Evaluation Command (AEC), Operational Test Center (OTC), White Sands Missile Range (WSMR). This coordination includes; development and procurement of modeling and simulation tools, instrumentation for data collection, facilities required to store and maintain equipment, facilities required to integrate capabilities, other test equipment, and REDFORCE systems. Conduct experimentation, tests, and evaluation by coordinating and procuring range resources to include range time, range personnel, test engineering support, operators and subject matter experts on systems under evaluation. Includes costs of management of the test/experiment and support all demonstrations experiments and tests. Includes costs for distributed networking capability (i.e. Defense Research Engineering (DREN), I/O Range, circuits, etc) and other electronic infrastructure data transfer medias between Aberdeen Proving Grounds (APG), Electronic Proving Grounds (EPG), FT Bliss and White Sands Missile Range. Conduct coordination with AEC on the development of System Evaluation Plans (SEP) and Operational Milestone Assessment Reports (OMAR) and maintain all data bases of evaluation analysis.			
Title: Other Support Cost	-	5.847	9.666
Articles:	-	-	-
Description: Other Support Cost required for NIE Event. ***FY 2014 Plans:*** Procure and manage satellite time, POL, security support, facilities, MEDEVAC support, blade time for helicopters, and others services, equipment and maintenance of facilities to ensure a successful evaluation/test. ***FY 2015 Plans:*** Procure and manage satellite time, POL, security support, facilities, MEDEVAC support, blade time for helicopters, and others services, equipment and maintenance of facilities to ensure a successful evaluation/test.			
Accomplishments/Planned Programs Subtotals	-	14.992	24.785

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• DY4: *DY4 Network Integration Support*	-	15.792	20.418	-	20.418	18.549	17.569	15.589	15.613	Continuing	Continuing
• DY5: *DY5 Production/Fielding Coordination for Capability Sets*	-	4.198	2.802	-	2.802	4.953	4.681	4.145	4.155	Continuing	Continuing
• DY6: *DY6 Brigade and Platform Integration Support*	-	44.576	43.606	-	43.606	52.996	54.940	58.807	58.895	Continuing	Continuing
• DY7: *DY7 Army Systems Engineering, Architecture and Analysis*	-	14.392	9.642	-	9.642	16.913	16.016	14.209	14.231	Continuing	Continuing
• DZ6: *DZ6 Army Integration & Coordination Management*	-	5.997	4.026	-	4.026	7.064	6.680	5.920	5.936	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project includes Army Test Evaluation Center competitive contracts for test support services. Additional competitive contracts are awarded by Defense Information Systems Agency (DISA) for satellite support.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY3 / *NIE Test & Evaluation*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Support Costs	TBD	Various Note:1 : TBD	0.000	-		5.847	Nov 2013	9.666	Nov 2014	-		9.666	-	15.513	-
		Subtotal	0.000	-		5.847		9.666		-		9.666	-	15.513	-

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed, Aberdeen Proving Grounds (MD), FT Bliss (TX), White Sands Missile Range (NM).
- Includes support services from DISA (for satellite time) and other governments agencies

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NIE ATEC Test and Evaluation Costs	TBD	Various Note:1 : TBD	0.000	-		9.145	Nov 2013	15.119	Nov 2014	-		15.119	-	24.264	-
		Subtotal	0.000	-		9.145		15.119		-		15.119	-	24.264	-

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), Electronic Proving Grounds (AZ), FT Bliss (TX), White Sands Missile Range (NM).
- Program Test support through ATEC

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		14.992		24.785		-		24.785	-	39.777	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

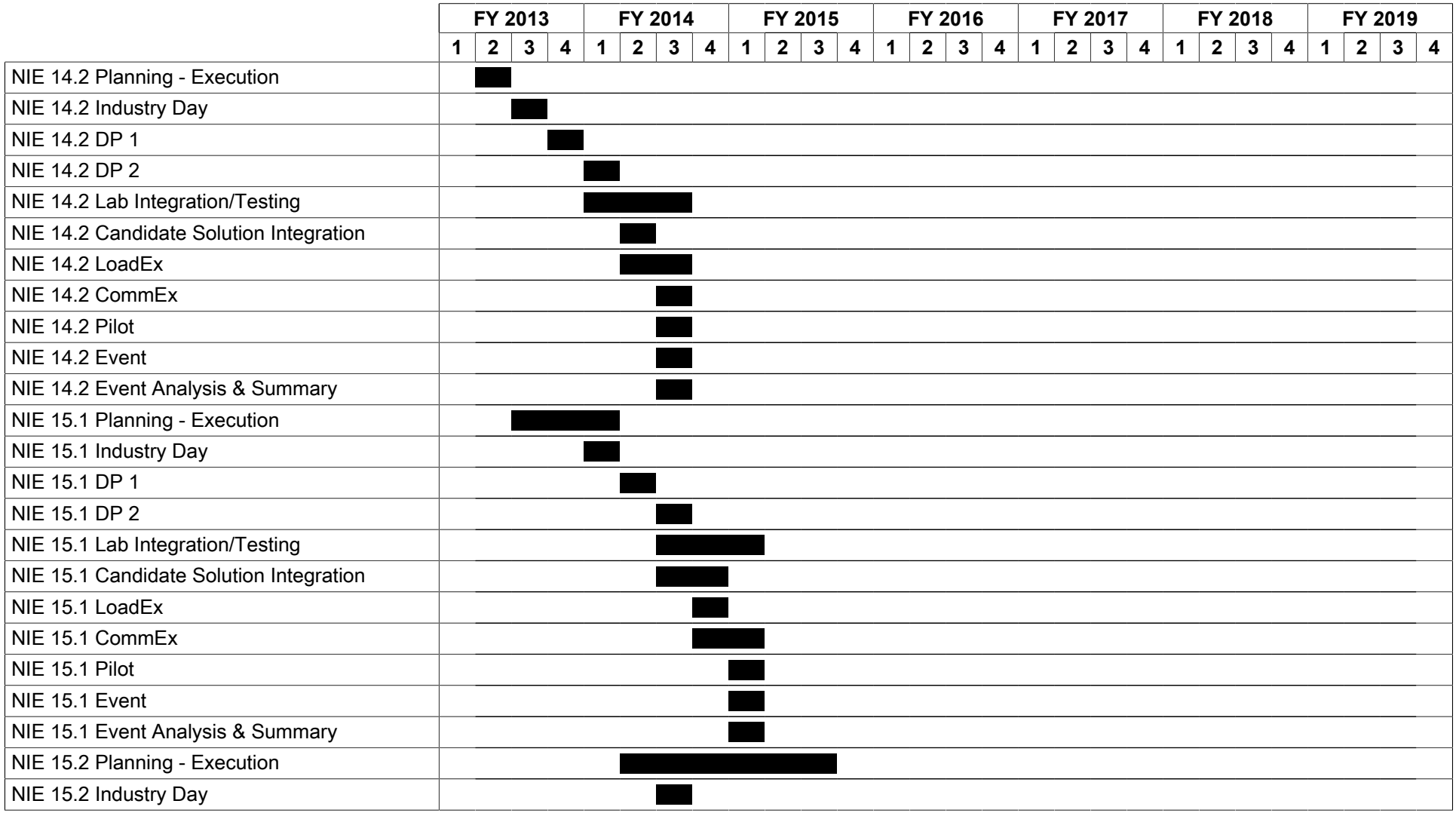

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

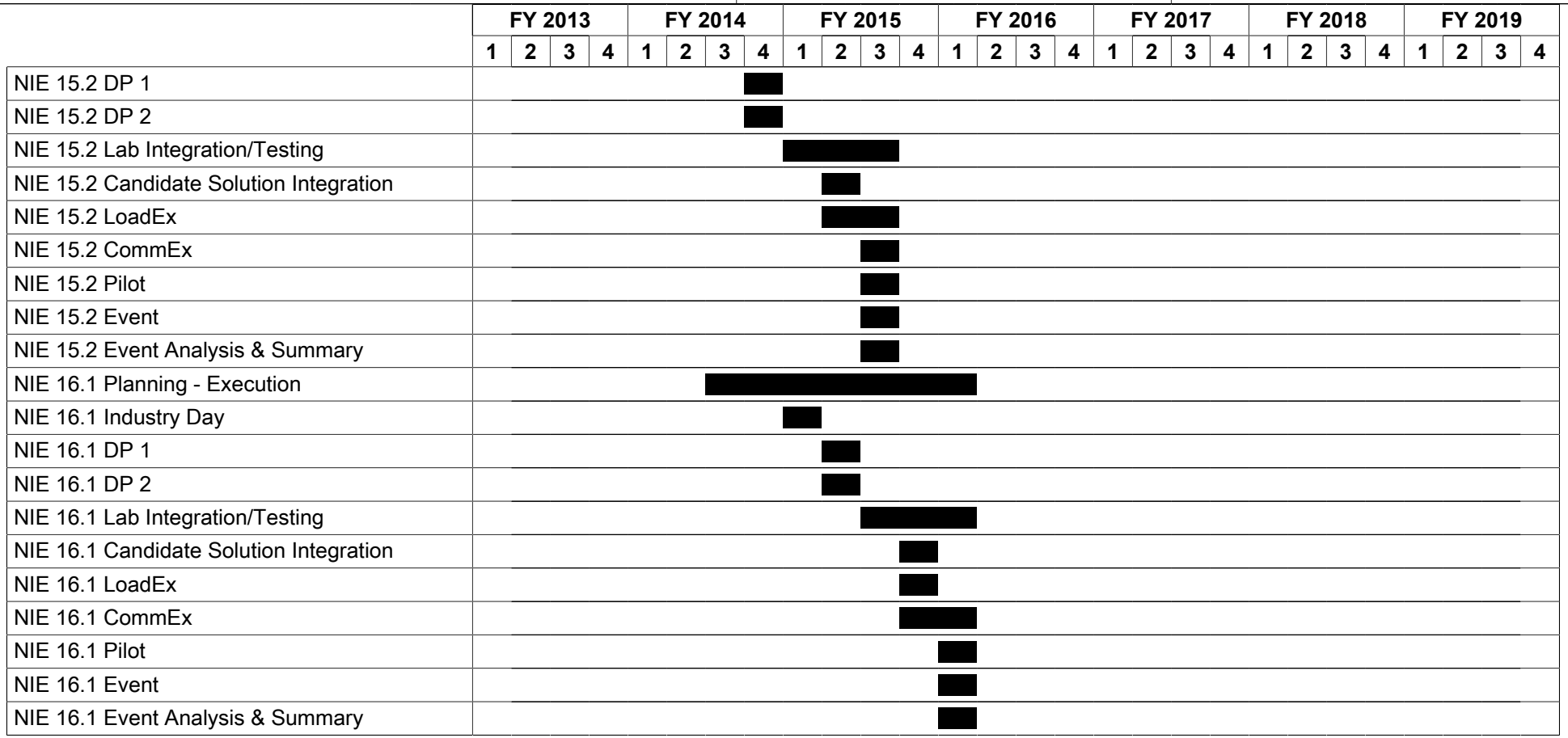

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 14.2 Planning - Execution	2	2013	2	2013
NIE 14.2 Industry Day	3	2013	3	2013
NIE 14.2 DP 1	4	2013	4	2013
NIE 14.2 DP 2	1	2014	1	2014
NIE 14.2 Lab Integration/Testing	1	2014	3	2014
NIE 14.2 Candidate Solution Integration	2	2014	2	2014
NIE 14.2 LoadEx	2	2014	3	2014
NIE 14.2 CommEx	3	2014	3	2014
NIE 14.2 Pilot	3	2014	3	2014
NIE 14.2 Event	3	2014	3	2014
NIE 14.2 Event Analysis & Summary	3	2014	3	2014
NIE 15.1 Planning - Execution	3	2013	1	2014
NIE 15.1 Industry Day	1	2014	1	2014
NIE 15.1 DP 1	2	2014	2	2014
NIE 15.1 DP 2	3	2014	3	2014
NIE 15.1 Lab Integration/Testing	3	2014	1	2015
NIE 15.1 Candidate Solution Integration	3	2014	4	2014
NIE 15.1 LoadEx	4	2014	4	2014
NIE 15.1 CommEx	4	2014	1	2015
NIE 15.1 Pilot	1	2015	1	2015
NIE 15.1 Event	1	2015	1	2015
NIE 15.1 Event Analysis & Summary	1	2015	1	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY3 / *NIE Test & Evaluation*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 15.2 Planning - Execution	2	2014	3	2015
NIE 15.2 Industry Day	3	2014	3	2014
NIE 15.2 DP 1	4	2014	4	2014
NIE 15.2 DP 2	4	2014	4	2014
NIE 15.2 Lab Integration/Testing	1	2015	3	2015
NIE 15.2 Candidate Solution Integration	2	2015	2	2015
NIE 15.2 LoadEx	2	2015	3	2015
NIE 15.2 CommEx	3	2015	3	2015
NIE 15.2 Pilot	3	2015	3	2015
NIE 15.2 Event	3	2015	3	2015
NIE 15.2 Event Analysis & Summary	3	2015	3	2015
NIE 16.1 Planning - Execution	3	2014	1	2016
NIE 16.1 Industry Day	1	2015	1	2015
NIE 16.1 DP 1	2	2015	2	2015
NIE 16.1 DP 2	2	2015	2	2015
NIE 16.1 Lab Integration/Testing	3	2015	1	2016
NIE 16.1 Candidate Solution Integration	4	2015	4	2015
NIE 16.1 LoadEx	4	2015	4	2015
NIE 16.1 CommEx	4	2015	1	2016
NIE 16.1 Pilot	1	2016	1	2016
NIE 16.1 Event	1	2016	1	2016
NIE 16.1 Event Analysis & Summary	1	2016	1	2016

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY4 / *Network Integration Support*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DY4: *Network Integration Support*	-	-	15.792	20.418	-	20.418	18.549	17.569	15.589	15.613	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project supports Phases I through IV of the Army's Agile process. Phase I solicits potential solutions from existing Army programs, tech base programs, and industry to eliminate capability gaps in the current force structure. It establishes initial objectives, solidifies the architecture baseline and will establish a viable candidate list for Network Integration Evaluation (NIE). During Phase II, the project supports the compilations of potential solutions that could meet the US Army Training and Doctrine Command (TRADOC) identified gaps and begins to develop the integration and testing concepts for the NIE. Phase III includes the coordinated efforts between System of Systems Integration (SOSI), Brigade Modernization Command (BMC) at Ft Bliss and the Army Test and Evaluation Command (ATEC) to finalize the brigade architecture "horseblanket", integration and test plans, training materials and combat mission evaluations. Phase III also includes the initial integration phase where industry and government System Under Evaluation (SUE) hardware and software are integrated and initially evaluated for follow-on consideration at Aberdeen Proving Ground's (APG) Communications Electronics Research, Development and Engineering Center (CERDEC) labs through the Lab Based Risk Reduction (LBRR) process. This effort continues into Phase IV as the network matures and becomes functional in the Lab. The results of this detailed lab based testing/evaluations will determine which industry and government SUEs will continue in the NIE (Phases IV/V of the Army's Agile Network Integration process) and develops the initial Network configuration that will be used in NIE. It also reduces risk to NIE execution by testing the Network in the lab, resolving issues found in the Network lab test and optimizing the Networks performance. This is done in a lab environment that facilitates very efficient, cost effective determination of problems, and their subsequent corrections. This project provides for Network Integration of all SUEs (industry and government) Hardware/Software into existing CERDEC System Integration Laboratories at APG to simulate the Brigade Network for NIE and it determines if new capabilities successfully resolve known gaps and meets network performance requirements.

For industry SUEs, this project will integrate the industry SUE into the Network at the CERDEC labs which helps industry to include small businesses, interface and integrate with Government programs of record with unique military secure interfaces and protocols. It also provides industry with technical assessment of their products in respect to Army know gaps/requirements. Purchase of any additional hardware and support above and beyond the contractors proposed support if required for Lab Based Risk Reduction is also funded within this project. For Government SUEs, this project funds integration support at the CERDEC Labs. If the NIE program requires additional prototypes above and beyond the Program of Record for the Lab based Risk Reduction, it will also purchase this equipment. This project also funds keeping the Network baseline up to date so that integration is always into the current baseline network.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: NIE Network Integration and Lab Based Risk Reduction	-	9.311	12.043
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: These funds provide for the following: Network Integration of all industry and government SUEs, SUTs, and baseline Hardware/Software into existing CERDEC System Integration Laboratories at Aberdeen Proving Grounds (APG) to simulate the Brigade Network for NIE and determine if SUE's capabilities successfully resolve known gaps. ***FY 2014 Plans:*** The funding provides for the Lab Based Network Analysis and evaluations for NIE 14.2 and NIE 15.1 Brigade Network. In the CERDEC labs, engineers create a representative NIE network architecture incorporating radios, satellite-based systems, handheld devices, mission command applications, routers, software, cables and other network components. Through a combination of actual and simulated hardware and software they recreate the end-to-end NIE network, allowing industry and government organizations the ability to "plug" their systems into the NIE architecture for early assessment and integration risk mitigation. The lab activity validates the NIE network architecture products and network configurations using a Brigade-scale network consisting of a mixture of live and virtualized hardware and software. Products include; plans/execution/reports of the following: system level specification verification, instrumentation verification, pre-event analysis, Network Integration Requirements Levels, Measures of Performance, communication load plan, automated performance assessment of technical, configuration control, transport and software basis of issue, instrumentation plan, field troubleshooting and reach back support during event execution, routing design for NIE, and technical input to the reports to industry of system performance and issues. ***FY 2015 Plans:*** The funding provides for the Lab Based Network Analysis and evaluations for NIE 15.2 and NIE 16.1 Brigade Network. In the CERDEC labs, engineers create a representative NIE network architecture incorporating radios, satellite-based systems, handheld devices, mission command applications, routers, software, cables and other network components. Through a combination of actual and simulated hardware and software they recreate the end-to-end NIE network, allowing industry and government organizations the ability to "plug" their systems into the NIE architecture for early assessment and integration risk mitigation. This effort plans and conducts detailed Network experiments. The lab activity validates the NIE network architecture products and network configurations using a Brigade-scale network consisting of a mixture of live and virtualized hardware and software. Products include; plans/execution/reports of the following: system level specification verification, instrumentation verification, pre-event analysis, Network Integration Requirements Levels, Measures of Performance, communication load plan, automated performance assessment of technical, configuration control, transport and software basis of issue, instrumentation plan, field troubleshooting and reach back support during event execution, routing design for NIE, and technical input to the reports to industry of system performance and issues.			
Title: NIE and LBRR Requirements Definition Support	-	4.442	5.740
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: These funds provide for all government and contract personnel and equipment which work with TRADOC and Army G-3/5/7 to finalize the architecture, requirements, and horseblanket for each NIE. ***FY 2014 Plans:*** This effort includes working with TRADOC and G-3/5/7 directorates and ASA(ALT) PEOs to finalize the operational gaps and then to develop either sources sought or Requests For Proposals (RFP)s to competitively select industry and government SUEs to resolve these gaps. This also includes the development of Scope of works, evaluation and down-selection criteria and then evaluation of any and all sources sought and RFP proposals to verify that the hardware/software performs to the requirement. This effort includes management of the down-selections for each event, development and delivery of the final implementation horseblanket architecture and design for each NIE. It also includes all program, information, security, business, schedule, personal management, network integration, evaluation, and reporting efforts required to support phases 1-3 of the NIE process. This effort also includes the management and implementation of phase VI system recommendations across the ASA(ALT) PEO communities. ***FY 2015 Plans:*** This effort includes working with TRADOC and G-3/5/7 directorates and ASA(ALT) PEOs to finalize the operational gaps and then to develop either sources sought or Requests For Proposals (RFP)s to competitively select industry and government SUEs to resolve these gaps. This also includes the development of Scope of works, evaluation and down-selection criteria and then evaluation of any and all sources sought and RFP proposals to include black box testing to verify that the hardware/software performs to the requirement. This effort includes management of the down-selections for each event, development and delivery of the final implementation horseblanket architecture and design for each NIE. It also includes all program, information, security, business, schedule, personal management, network integration, evaluation, and reporting efforts required to support phases 1-3 of the NIE process. This effort also includes the management and implementation of phase VI system recommendations across the ASA(ALT) PEO communities.			
Title: NIE SUE Hardware/Software for Lab & FSR Support for Network Integration	-	1.379	1.782
Articles:	-	-	-
Description: The effort includes procurement of Hardware and Software required by the Lab to fully simulate the Brigade Network it includes the FSR Support from Contractors to fully integrate their systems into the Network. ***FY 2014 Plans:*** Provides funding to support Network integration and evaluation at the CERDEC Lab at APG. This supports semi-annual Network Integration of industry and government technologies which are being selected as Systems Under Evaluation (SUE) for participation into the Army's Network Integration Evaluations (NIE) 14.2 & 15.1. These funds cover the selected SUE's			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
participation in the lab integration event. This includes contractor's costs for travel, and shipment of equipment, Contractor Field Service Representatives (CFSRs) required to support Network integration activities, and the purchase of additional prototypes required for the CERDEC Lab when needed to effectively complete detailed evaluations of the complete brigade network architecture ***FY 2015 Plans:*** Provides funding to support Network integration and evaluation at the CERDEC Lab at APG. This supports semi-annual Network Integration of industry and government technologies which are being selected as Systems Under Evaluation (SUE) for participation into the Army's Network Integration Evaluations (NIE) 15.2 & 16.1. These funds cover the selected SUE's participation in the lab integration event. This includes contractor's costs for travel, and shipment of equipment, Contractor Field Service Representatives (CFSRs) required to support Network integration activities, and the purchase of additional prototypes required for the CERDEC Lab when needed to effectively complete detailed evaluations of the complete brigade network architecture.			
Title: Facilities and IT Support	-	0.660	0.853
Articles:	-	-	-
Description: Provides funding for infrastructure/facilities and IT support. ***FY 2014 Plans:*** Provides funding for infrastructure/facilities. In addition it includes the cost for IT support from Network connectivity for purchasing/ leasing hardware, software, computers, communications equipment and services for the government staff. ***FY 2015 Plans:*** Provides funding for infrastructure/facilities. In addition it includes the cost for IT support from Network connectivity for purchasing/ leasing hardware, software, computers, communications equipment and services for the government staff.			
Accomplishments/Planned Programs Subtotals	-	15.792	20.418

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• DY3: *DY3 NIE Test & Evaluation*	-	14.992	24.785	-	24.785	17.621	16.685	14.800	14.823	Continuing	Continuing
• DY5: *DY5 Production/Fielding Coordination for Capability Sets*	-	4.198	2.802	-	2.802	4.953	4.681	4.145	4.155	Continuing	Continuing
• DY6: *DY6 Brigade and Platform Integration Support*	-	44.576	43.606	-	43.606	52.996	54.940	58.807	58.895	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• DY7: *DY7 Army Systems Engineering, Architecture and Analysis*	-	14.392	9.642	-	9.642	16.913	16.016	14.209	14.231	Continuing	Continuing
• DZ6: *DZ6 Army Integration & Coordination Management*	-	5.997	4.026	-	4.026	7.064	6.680	5.920	5.936	Continuing	Continuing

Remarks

D. Acquisition Strategy

During the planning of NIE 13.2 the government focused on identifying and evaluating systems against the Army's known gaps and utilized a Sources Sought solicitation to invite industry's participation in each NIE. Industry's initial white paper submissions for participation at NIE generally result in no Cost to the government. But there are exceptions, which yield cost such as ensuring small business can participate and if the government needs additional FSR support or hardware to fully represent the Brigade requirements. For FY 2013 and out, the government will use one of two acquisition strategies; First the government will issue a sources sought request to fill the known gaps (utilizing current practices), or the government will use either an existing government contract or a Request for Proposal (RFP) as the means of solicitation for industry's participation in the NIE, the RFP and contracts this will include a participant's production option. The Sources Sought process will be used to help clarify gaps definition and solution sets, where as RFPs will be used when the government's technical community can define the commodity desired to fill a gap with clear and concise selection criteria. The Army is developing a DA PAM to document this process.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY4 / *Network Integration Support*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NIE Network Integration and Lab Based Risk Reduction	TBD	Various Note: 1 : TBD	0.000	-		8.326	Nov 2013	12.043	Nov 2014	-		12.043	-	20.369	-
		Subtotal	0.000	-		8.326		12.043		-		12.043	-	20.369	-

Remarks

Note:1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), TACOM (Warren MI), Taylor Bldg, (Crystal City, VA), FT Bliss (TX), .
- Program Integration support through various PMs, PEOs, RDECOM, and a multitude of small support and industry contractors.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NIE and LBRR Requirements Definition Support	TBD	Various Note: 1 : TBD	0.000	-		2.718	Nov 2013	5.740	Nov 2014	-		5.740	-	8.458	-
NIE SUE Hardware/ Software for Lab & FSR Support for Network Integration	TBD	Various Note: 1 : TBD	0.000	-		4.014	Nov 2013	1.782	Nov 2014	-		1.782	-	5.796	-
Facilities and IT Support	TBD	Various Note: 1 : TBD	0.000	-		0.734	Nov 2013	0.853	Nov 2014	-		0.853	-	1.587	-
		Subtotal	0.000	-		7.466		8.375		-		8.375	-	15.841	-

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), TACOM (Warren MI), Taylor Bldg, (Crystal City, VA)

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY4 / *Network Integration Support*	

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		15.792		20.418		-		20.418	-	36.210	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

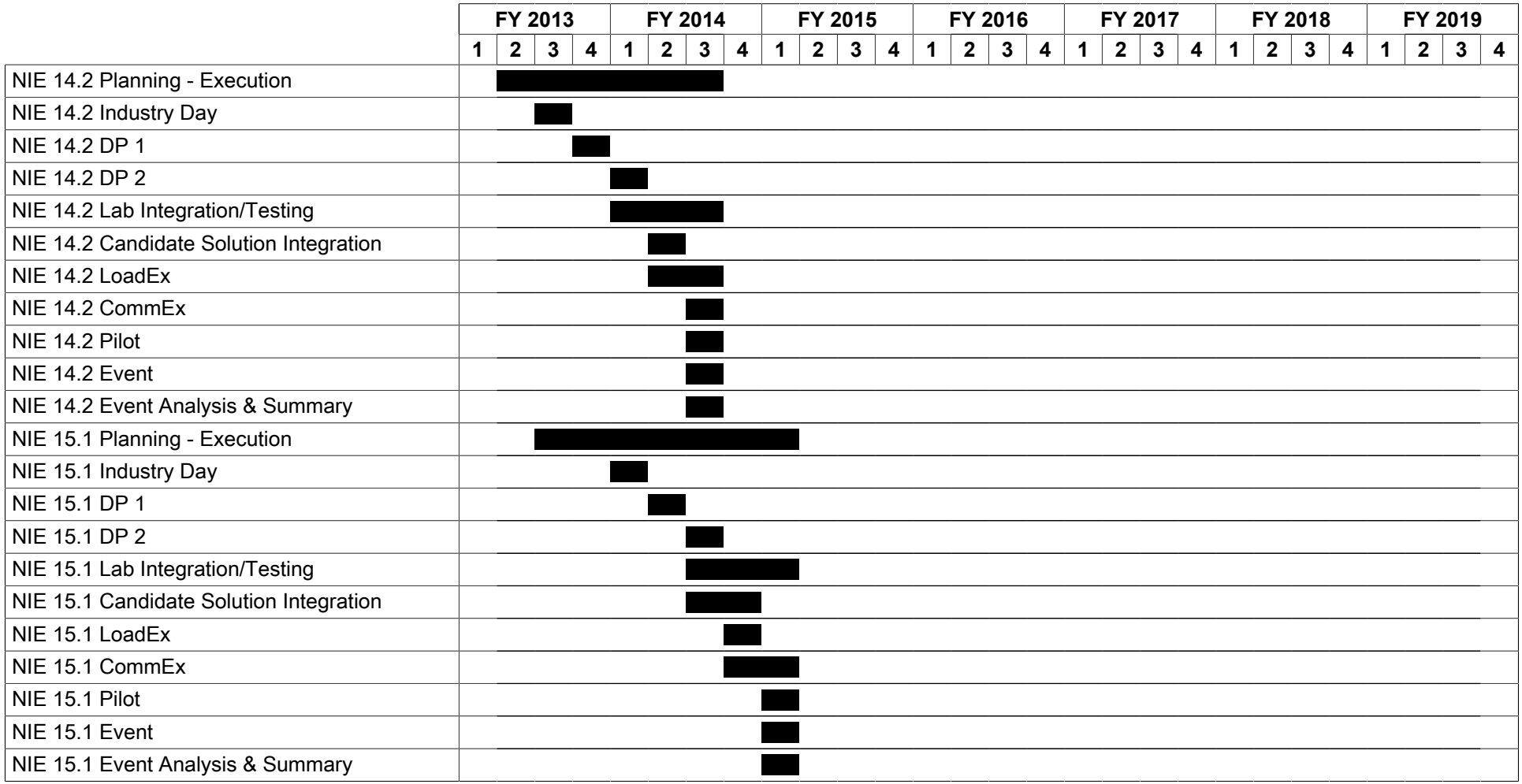

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY4 / *Network Integration Support*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 14.2 Planning - Execution	2	2013	3	2014
NIE 14.2 Industry Day	3	2013	3	2013
NIE 14.2 DP 1	4	2013	4	2013
NIE 14.2 DP 2	1	2014	1	2014
NIE 14.2 Lab Integration/Testing	1	2014	3	2014
NIE 14.2 Candidate Solution Integration	2	2014	2	2014
NIE 14.2 LoadEx	2	2014	3	2014
NIE 14.2 CommEx	3	2014	3	2014
NIE 14.2 Pilot	3	2014	3	2014
NIE 14.2 Event	3	2014	3	2014
NIE 14.2 Event Analysis & Summary	3	2014	3	2014
NIE 15.1 Planning - Execution	3	2013	1	2015
NIE 15.1 Industry Day	1	2014	1	2014
NIE 15.1 DP 1	2	2014	2	2014
NIE 15.1 DP 2	3	2014	3	2014
NIE 15.1 Lab Integration/Testing	3	2014	1	2015
NIE 15.1 Candidate Solution Integration	3	2014	4	2014
NIE 15.1 LoadEx	4	2014	4	2014
NIE 15.1 CommEx	4	2014	1	2015
NIE 15.1 Pilot	1	2015	1	2015
NIE 15.1 Event	1	2015	1	2015
NIE 15.1 Event Analysis & Summary	1	2015	1	2015

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY5 / *Production/Field Coordination for Capability Sets*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DY5: *Production/Field Coordination for Capability Sets*	-	-	4.198	2.802	-	2.802	4.953	4.681	4.145	4.155	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project provides for the development of a coordinated plan for the Production (Integrating components onto vehicle systems) and Fielding (logistics and training) of those Brigade components (both hardware/software in A and/or B Kits) and Division/Corps components (used primarily on the Command Post computing environment) that successfully passed the Network Integration Evaluation (NIE) and have been certified as interoperable for fielding through Army Interoperability Certification events and were approved by the Army's Leadership to be incorporated in subsequent Capability Sets (CS). This project request funds for the coordination of the required activity plan with the applicable Program of Records (PEOs/PMs). This project does not fund the actual production, integration, nor fielding costs associated with the Tactical Capability Set. This project includes government and contractor efforts to integrate and validate that the Army is fielding platforms, components and software that are integrated together to provide increased capabilities for the soldier that are supportable and trainable.

This project includes the following efforts: Provides oversight and direct coordination between participating PEOs, PMs, RDECOMs and the Army's Brigade Combat Teams (BCT) receiving the Tactical Capability Set package, throughout all phases of the Vehicle Integration and Synchronized Fielding process. This begins with an assembly of multiple programs of record (PORs) integrated into the Army Network to achieve enhanced network performance IAW the requirements validation, content and execution priorities received from the Army G-3/5/7 (DAMO LM). The Capability Set process development is structured by working with the PORs to define materiel systems Basis of Issue (BOI)/Network Architecture by type of Brigade Combat Team (BCT). Capability Set products that have been Materiel Released/ Type Classified, have production funding and production are aligned a single Integrated Master Schedule for design integration, testing, production, kitting, platform integration, training and fielding. This project also includes the direct support during each of the unit's "New Equipment Training" and "New Equipment Fielding", along with the preparation for the BCT's rotation through one of the Army's Combat Training Centers, (Joint Readiness Training Center (JRTC) or National Training Center (NTC). Upon completion of the Combat Training Center (CTC) rotation the support teams provide oversight to ensure that all training assets are reset and moved to the follow-on BCT and that all After Action activities are closed out. This project also includes coordination with DA staff for synchronization of NIE with Integration and Interoperability events leading to Army Interoperability Certification and coordinating mission command Army Interoperability Certification (AIC) baseline to support fielding.

The FY 2015 funding is supporting the CS fielding in CY 2015 and also conducting the planning for CS 16. During FY 2015 the Army's current plan is to conduct seven (7) Tactical Capability Set-Sync Fieldings (CS-SF) and one (1) Division Headquarters utilizing three CS-SF teams.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Production/Fielding Coordination for Capability Sets	-	3.916	2.614

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-

Description: These funds provide for the following: Development, coordination and execution of the plan to take the results of previous NIEs and produce, integrate, and field these Brigade improvements to the BCTs. This effort does not fund the production, or integration, or fielding of the tactical capability set, but it does fund the coordination of this activity for the Army through the supporting Program Managers (PMs), Program Executive Officers (PEOs), and Research, Development, Engineering Command (RDECOMs).

FY 2014 Plans:
Synchronize, integrate and coordinate Tactical Capability Set Fielding for CS-14 thru CS-19 to receiving Brigade Combat Teams (BCTs). Coordinate fielding integration of Program of Record assets in accordance with the defined BCT Reference architecture consisting of multiple systems, on multiple configurations of STRYKER, MRAPS, HMMWV and Heavy Armor vehicle platforms, at several different locations, integrated into multiple gaining Army Units. Coordinate a synchronized New Equipment Training / New Equipment Fielding (NET/NEF) Integrated Master Schedule (IMS) for fielding of CS-14 to all gaining units. Complete NET by platforms, by role, by echelon, and by BCT. Begin CS-15 NET/NEF requirements definition finalization and development of the NET/NEF integrated master schedule. This includes logically scheduling Program of Record unique NET, System of Systems NET (Capability Set holistic classes), and property accountability handoffs as an integrated process to enhance efficiency of the brigade modernization events. Provides integrated system identification documents to the gaining unit for ease of property transfer in PBUSE. Provides integrated management of facilities across all fielding activities to efficiently manage facilities requirements linked to the Integrated Mast Schedule for all PMs with garrison support activities. Coordinate standard transfer processes for all PMs to reduce the complexity and administrative burden on the gaining units. Synchronize fielding planning to include synchronized production deliveries, NET, fielding and support (with sponsoring PMs) to execute within the specified ARFORGEN windows. Coordinate funding requirements and delivery/production schedules to ensure production schedules are met to field selected systems. Complete funding coordination with DA and prioritized requirements at Weapons Systems Reviews (WSR) to support the POM. Align funding requirements for PMs to make updates to their PORs as a result of integrating concepts that affect engineering architecture data products, training packages, logistics packages, etc. Coordinate New Equipment Training (NET) and New Equipment Fielding (NEF) for all CS-14 components/products across all receiving Units.

FY 2015 Plans:
Base FY 2015 Description: Synchronize, integrate and coordinate Tactical Capability Set Fielding for CS-15 and planning for CS-16. Coordinate fielding integration of Program of Record assets in accordance with the defined BCT Reference architecture consisting of multiple systems, on multiple configurations of STRYKER, MRAPS, HMMWV and Heavy Armor vehicle platforms, at several different locations, integrated into multiple gaining Army Units. Coordinate a synchronized New Equipment Training / New Equipment Fielding (NET/NEF) Integrated Master Schedule (IMS) for fielding of TCS-15 to all gaining units. Complete NET by platforms, by role, by echelon, and by BCT. Begin TCS-16 NET/NEF requirements definition finalization and development of

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
the NET/NEF integrated master schedule. This includes logically scheduling Program of Record unique NET, System of Systems NET (Capability Set holistic classes), and property accountability handoffs as an integrated process to enhance efficiency of the brigade modernization events. Provides integrated system identification documents to the gaining unit for ease of property transfer in PBUSE. Provides integrated management of facilities across all fielding activities to efficiently manage facilities requirements linked to the Integrated Mast Schedule for all PMs with garrison support activities. Coordinate standard transfer processes for all PMs to reduce the complexity and administrative burden on the gaining units . Synchronize fielding planning to include synchronized production deliveries, NET, fielding and support (with sponsoring PMs) to execute within the specified ARFORGEN windows. Coordinate funding requirements and delivery/production schedules to ensure production schedules are met to field selected systems. Complete funding coordination with DA and prioritized requirements at Weapons Systems Reviews (WSR) to support the POM. Align funding requirements for PMs to make updates to their PORs as a result of integrating concepts that affect engineering architecture data products, training packages, logistics packages, etc. Coordinate New Equipment Training (NET) and New Equipment Fielding (NEF) for all TCS-15 components/products across all receiving Units			
Title: Facilities and IT Support	-	0.282	0.188
Articles:	-	-	-
Description: Provides funding for infrastructure/facilities and IT support. ***FY 2014 Plans:*** Provides funding for infrastructure/facilities. In addition it includes the cost for IT support from Network connectivity for purchasing/ leasing hardware, software, computers, communications equipment and services for the government staff. ***FY 2015 Plans:*** Provides funding for infrastructure/facilities. In addition it includes the cost for IT support from Network connectivity for purchasing/ leasing hardware, software, computers, communications equipment and services for the government staff.			
Accomplishments/Planned Programs Subtotals	-	4.198	2.802

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• DY3: *DY3 NIE Test & Evaluation*	-	14.992	24.785	-	24.785	17.621	16.685	14.800	14.823	Continuing	Continuing
• DY4: *DY4 Network Integration Support*	-	15.792	20.418	-	20.418	18.549	17.569	15.589	15.613	Continuing	Continuing
• DY6: *DY6 Brigade and Platform Integration Support*	-	44.576	43.606	-	43.606	52.996	54.940	58.807	58.895	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• DY7: *DY7 Army Systems Engineering, Architecture and Analysis*	-	14.392	9.642	-	9.642	16.913	16.016	14.209	14.231	Continuing	Continuing
• DZ6: *DZ6 Army Integration & Coordination Management*	-	5.997	4.026	-	4.026	7.064	6.680	5.920	5.936	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project does not have any requirement for direct procurement of hardware or software.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY5 / *Production/Field Coordination for Capability Sets*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Production/Fielding Coordination for Capability Sets	TBD	Various Note: 1 : TBD	0.000	-		3.916	Nov 2013	2.614	Nov 2014	-		2.614	-	6.530	-
		Subtotal	0.000	-		3.916		2.614		-		2.614	-	6.530	-

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at, TACOM (Warren MI).
- Program Integration support through various PMs, PEOs, RDECOM.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Facilities and IT Support	TBD	Various Note:1 : TBD	0.000	-		0.282	Nov 2013	0.188	Nov 2014	-		0.188	-	0.470	-
		Subtotal	0.000	-		0.282		0.188		-		0.188	-	0.470	-

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at, TACOM (Warren MI).

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		4.198		2.802		-		2.802	-	7.000	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

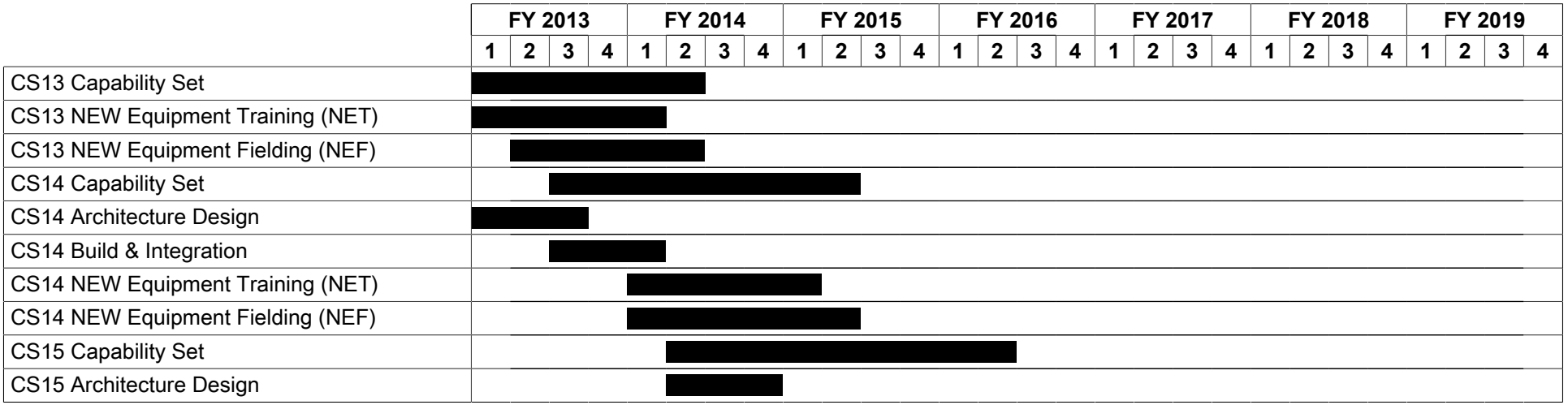

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY5 / *Production/Field Coordination for Capability Sets*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
CS13 Capability Set	2	2012	2	2014
CS13 NEW Equipment Training (NET)	1	2013	1	2014
CS13 NEW Equipment Fielding (NEF)	2	2013	2	2014
CS14 Capability Set	3	2013	2	2015
CS14 Architecture Design	4	2012	3	2013
CS14 Build & Integration	3	2013	1	2014
CS14 NEW Equipment Training (NET)	1	2014	1	2015
CS14 NEW Equipment Fielding (NEF)	1	2014	2	2015
CS15 Capability Set	2	2014	2	2016
CS15 Architecture Design	2	2014	4	2014

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY6 / *Brigade and Platform Integration Support*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DY6: *Brigade and Platform Integration Support*	-	-	44.576	43.606	-	43.606	52.996	54.940	58.807	58.895	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project supports Phase IV through Phase VI of the Army's Agile Integration Process and provide management and oversight to the coordinated Army effort for delivering and maintaining Mission Command Baselines as an interoperable System of Systems (SoS) capability through the synchronization, coordination and facilitation of system deliveries to interoperability certification events.

Based on developed baseline Brigade level architectures, (SOSI) will assess against approved Department of the Army (DA) objectives and baseline Brigade Combat Team (BCT) architectures to plan for and integrate approved network hardware and software systems onto the Soldier and vehicle systems that comprise the integrated BCT network. Work encompasses design and engineering of hardware and cable interfaces (e.g., A-kits) that enable integration of network hardware onto vehicle platforms; development of network data products required to support evaluations of the network; verification of integrated BCT network performance in garrison and field environments; field support to network hardware and software systems that deploy to the field and participate in operational evaluations conducted throughout the BCT battlespace; and, following the operational evaluation, restoration of selected platforms to their baseline configurations. This project includes government and contractor efforts to validate that the Army is properly integrating and fielding trainable, maintainable, interoperable, and sustainable network systems and components that will provide increased warfighting capabilities for the Soldier. This project includes:

• Integration of lab-developed network solutions onto Soldier and vehicle systems;
• Design, and fabrication of mounting brackets, cables, and kits required to enable vehicle platforms to employ new network hardware and software systems;
• Installation and checkout of network hardware and software systems prior to turning the equipment over to the soldiers who will employ these systems during the Network Integration Evaluation (NIE);
• Funding for Field Service Representative (FSR) support for selected Systems Under Evaluation (SUEs) participating in Phase V of the Army's Agile Process;
• Validation of critical operational threads that demonstrate the stability and continuity of the tactical network exercised during the NIE;
• Planning, coordination, and execution of hardware and software system support during the operational phase of the NIE;
• De-modification of vehicles at completion of the event;
• Documentation of interface kits, performance trends, and Integrated Logistics Support (ILS) data to facilitate hand-off of high-payoff systems to designated Programs of Record (POR);
• Feedback to industry on the performance of their technologies, systems, and concept relative to known operational gaps;
• Maintenance of the infrastructure needed by SOSI to support NIE operations at Ft Bliss, TX and White Sands Missile Range, NM.
• System of Systems (SoS) and specialty engineering support to needed to build upon NIE-provided documentation and execute design integration, production planning and testing of Tactical Capability Sets (TCSs) which consolidate high-payoff capabilities in integrated fielding packages; and,

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• Planning, management, and execution of TCS design requirements to synchronize manufacturing development, production, and synchronized fielding to designated BCTs.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Platform Integration Support	-	16.569	16.223
Articles:	-	-	-

Description: These funds provide for integration of network solutions onto Soldier and vehicle systems to enable an integrated network across the brigade battlespace.

FY 2014 Plans:
This effort supports all activities associated with vehicle and platform integration. The work begins with the selection of network hardware and software systems at Decision Point (DP) 2 of the Army's Agile Process and includes execution of CS-14 synchronized fielding; execution of NIE 14.2 and 15.1 activities that support future (CS-15 and CS-16) requirements; and detailed planning for CS-15 activities.
• Coordination and planning of hardware and software system deliveries to SOSI activities at Fort Bliss, TX;
• Vehicle Integration (VI) planning and scheduling;
• VI execution;
• Network validation;
• Field support;
• Recovery from NIE field operations;
• Develop and deliver CS14 Implementation Architecture;
• CS-15 planning, and design analysis;
• Documentation and handoff of critical information to support implementation of CS-15 efforts;
• Synchronized fielding of CS-15 systems.
SOSI will work with its User counterparts to finalize the BCT architecture that will execute NIE 14.2 and NIE 15.1, and then it will:
• Develop Basis of Issue Plans (BOIPs) for each participating network hardware and software system;
• Identify the type (or types) of vehicle platforms that will host each network system;
• Identify and document the vehicle size, weight, power, and electromagnetic constraints
• Given vehicle size, weight, power, and electromagnetic constraints, develop engineering designs for the complete hardware kits (e.g., the brackets, mounting trays, cables, and other components that comprise an "A-Kit") needed to integrate each unique network hardware system onto each type of host platform that will participate in the NIE;
• Fabricate unique hardware components needed to support vehicle integration efforts;
• Integrate and verify the performance of each unique network system (e.g., B-kit) on its host vehicle - as specified by the BOIP;
• Support installation and integration of instrumentation kits needed to collect data from designated network systems and verify that the instrumentation does not impact the performance of the network system;

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
• Support the conduct of safety certification and release efforts for each unique vehicle configuration; • Perform SoS checkouts to ensure all SOSI-installed network hardware and software systems operate with each other, legacy systems, and other POR systems participating in the NIE; • Provide troubleshooting support for network validation exercises and selected network systems during the operational phase of the NIE; • De-installation of selected systems following each NIE; • Documentation and transfer of interface designs, training support requirements, performance trends, ILS requirements, and lessons learned to CS systems engineering teams; • Systems Engineering (SE) to mature the network interface designs developed during the NIE and enable expedited CS fielding; • Synchronized integration of a BCT Reference architecture consisting of multiple network systems, on multiple configurations of STRYKER, MRAPS, HMMWV and Heavy Armor vehicle platforms, at multiple locations; • Coordinate a synchronized Integrated Master Schedule (IMS) for fielding of CS-14 to all gaining units. • Integrate designs by platform, by role, by echelon, and by BCT. • Begin to finalize CS-15 requirements and develop and IMS for CS-15; • Coordinate A-Kit design, development and production and B-Kit's Integration Kit (IK) design, between system and platforms PEOs and PMs. • Coordinate and deliver prototype and production builds • Configuration Management (CM) of Platform Architectural implementations, designs, A-Kits, B-Kits, and the IMS. • Systems Engineering (SE) to include: design maturation, decomposition of reference architecture into platform specific implementations network architecture, prototype/production build, integrated testing, configuration of integrated baseline and an integrated schedule for component management • Synchronize acquisition strategy and planning to include: synchronized production deliveries, fielding and support (with sponsoring PMs) to maintain the ARFORGEN Cycle.			
FY 2015 Plans: This effort supports all activities associated with vehicle and platform integration. The work begins with the selection of network hardware and software systems at Decision Point (DP) 2 of the Army's Agile Process and includes execution of CS-14 synchronized fielding; execution of NIE 15.2 and 16.1 activities that support future (CS-16 and CS-17) requirements; and detailed planning for CS-16 activities. • Coordination and planning of hardware and software system deliveries to SOSI activities at Fort Bliss, TX; • Vehicle Integration (VI) planning and scheduling; • VI execution; • Network validation; • Field support;			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
• Recovery from NIE field operations; • Develop and deliver CS-15 Implementation Architecture; • Documentation and handoff of critical information to support implementation of CS-15 efforts; • CS-16 planning and design analysis; • Synchronized fielding of CS-15 systems. Vehicle integration: Leveraging the work performed during FY2014 and using brigade architectures that represent an evolving network modernization strategy: • Develop Basis of Issue Plans (BOIPs) for each participating network hardware and software system; • Identify the type (or types) of vehicle platforms that will host each network system; • Identify and document vehicle size, weight, power, and electromagnetic constraints • Given vehicle size, weight, power, and electromagnetic constraints, develop engineering designs for the complete hardware kits (e.g., the brackets, mounting trays, cables, and other components that comprise an "A-Kit") needed to integrate each unique network hardware system onto each type of host platform that will participate in the NIE; • Fabricate unique hardware components needed to support vehicle integration efforts; • Integrate and verify the performance of each unique network system (e.g., B-kit) on its host vehicle - as specified by the BOIP; • Support installation and integration of instrumentation kits needed to collect data from designated network systems and verify that the instrumentation does not impact the performance of the network system; • Support the conduct of safety certification and release efforts for each unique vehicle configuration; • Perform SoS checkouts to ensure all SOSI-installed network hardware and software systems operate with each other, legacy systems, and other POR systems participating in the NIE; • Provide troubleshooting support for network validation exercises and selected network systems during the operational phase of the NIE; • De-installation of selected systems following each NIE; • Documentation and transfer of interface designs, training support requirements, performance trends, ILS requirements, and lessons learned to CS systems engineering teams; • Systems Engineering (SE) to mature the network interface designs developed during the NIE and enable expedited CS fielding; • Synchronized integration of a BCT Reference architecture consisting of multiple network systems, on multiple configurations of STRYKER, MRAPS, HMMWV and Heavy Armor vehicle platforms, at multiple locations; • Coordinate a synchronized Integrated Master Schedule (IMS) for fielding of CS-14 to all gaining units. • Integrate designs by platform, by role, by echelon, and by BCT. • Begin to finalize CS-16 requirements and develop and IMS for CS-16; • Coordinate A-Kit design, development and production and B-Kit's Integration Kit (IK) design, between system and platforms PEOs and PMs. • Coordinate and deliver prototype and production builds			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
• Configuration Management (CM) of Platform Architectural implementations, designs, A-Kits, B-Kits, and the IMS. • Systems Engineering (SE) to include: design maturation, decomposition of reference architecture into platform specific implementations network architecture, prototype/production build, integrated testing, configuration of integrated baseline and an integrated schedule for component management • Synchronize acquisition strategy and planning to include: synchronized production deliveries, fielding and support (with sponsoring PMs) to maintain the ARFORGEN Cycle.			
Title: Brigade Integration Support	-	12.100	11.830
Articles:	-	-	-
Description: These funds provide for the testing and verification of network components integrated with the BCT's vehicle and soldier systems that participate in NIEs			
FY 2014 Plans: Brigade Integration: Once VI is complete for NIE 14.2 and 15.1, SOSI conducts a Network Validation Exercise (VALEX) to demonstrate network stability, connectivity, and performance in controlled conditions. VALEX consists of four phases: Load, Established, Integrate and Validate Threads. • During the Load phase, network systems and SoS engineers install network software, firmware, and Operating Systems (OSs), set Internal Protocol (IP) addresses and configure all network systems on all NIE-unique platforms (Note: Program of Record (POR) and Legacy engineers and FSRs perform the same tasks on any of their platforms that will participate in an NIE; PORs are NOT funded by SOSI to perform these functions). Once all software and data products are loaded, SOSI and supporting network engineers and FSRs perform test/fix/test processes at the network system and component level. • During the Establish phase, this effort resources SOSI engineers and FSRs to work with Legacy and POR network support personnel to verify network hardware and software performance at the platform level. This work troubleshoots any issues associated with network system configurations and ensures that each NIE platform has the ability to perform its role within the tactical network. • In the Integrate phase, this project enables SOSI engineers and FSRs to work with Legacy and POR network personnel to verify network hardware and software performance at the SoS platform level – from the small unit (e.g., company, troop, or battery) up to the brigade. This work troubleshoots any issues associated with network SoS configurations and ensures that each networked tactical units interact with each other as expected. Activities during the Integrate Phase include training of the Soldiers who will be using the new BCT network during the NIE • The Validate phase executes operational threads designed to demonstrate the BCT network's ability to provide specific capabilities to the BCT commander.			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Throughout VALEX planning and execution, SOSI coordinates with the Army Test and Evaluation Command (ATEC) and Brigade Modernization Command (BMC) to ensure network instrumentation, training, and operational requirements are coordinated. ***FY 2015 Plans:*** Brigade Integration: Once VI for NIE 15.2 and 16.1 is complete, SOSI conducts a Network Validation Exercise (VALEX) to demonstrate network stability, connectivity, and performance in controlled conditions. VALEX consists of four phases: Load, Established, Integrate and Validate Threads. • During the Load phase, network systems and SoS engineers install network software, firmware, and Operating Systems (OSs), set Internal Protocol (IP) addresses and configure all network systems on all NIE-unique platforms (Note: Program of Record (POR) and Legacy engineers and FSRs perform the same tasks on any of their platforms that will participate in an NIE; PORs are NOT funded by SOSI to perform these functions). Once all software and data products are loaded, SOSI and supporting network engineers and FSRs perform test/fix/test processes at the network system and component level. • During the Establish phase, this effort resources SOSI engineers and FSRs to work with Legacy and POR network support personnel to verify network hardware and software performance at the platform level. This work troubleshoots any issues associated with network system configurations and ensures that each NIE platform has the ability to perform its role within the tactical network. • In the Integrate phase, this project enables SOSI engineers and FSRs to work with Legacy and POR network personnel to verify network hardware and software performance at the SoS platform level – from the small unit (e.g., company, troop, or battery) up to the brigade. This work troubleshoots any issues associated with network SoS configurations and ensures that each networked tactical units interact with each other as expected. Activities during the Integrate Phase include training of the Soldiers who will be using the new BCT network during the NIE • The Validate phase executes operational threads designed to demonstrate the BCT network's ability to provide specific capabilities to the BCT commander. Throughout VALEX planning and execution, SOSI coordinates with the Army Test and Evaluation Command (ATEC) and Brigade Modernization Command (BMC) to ensure network instrumentation, training, and operational requirements are coordinated.			
Title: Network Integration Support	-	5.839	5.709
Articles:	-	-	-
Description: These funds provide for the field setup, validation, verification and correction of the network for the NIE. ***FY 2014 Plans:*** Network Integration funds Data Product builds for all transport layer communication devices. This effort includes: • Development of the NIE network's Lightweight Data Interchange Format (LDIF) file; • All NETOPS synchronization and coordination activities;			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
• Government Subject Matter Experts (SME) who assist in the integration of specialized communication hardware in BCT Command and Control (C2) centers; • Contractor FSRs and network Subject Matter Experts (SMEs) who help SOSI ensure the network is operational during VALEX, BCT Communications Exercises (COMMEXs), NIE Pilot Testing, and NIE execution. ***FY 2015 Plans:*** Network Integration funds Data Product builds for all transport layer communication devices. This effort includes: • Development of the NIE network's Lightweight Data Interchange Format (LDIF) file; • All NETOPS synchronization and coordination activities; • Government Subject Matter Experts (SME) who assist in the integration of specialized communication hardware in BCT Command and Control (C2) centers; • Contractor FSRs and network Subject Matter Experts (SMEs) who help SOSI ensure the network is operational during VALEX, BCT Communications Exercises (COMMEXs), NIE Pilot Testing, and NIE execution.			
Title: NIE Infrastructure ***Articles:*** ***Description:*** Provides for Infrastructure (facilities) at FT Bliss TX and WSMR. ***FY 2014 Plans:*** Provides for setup, utilities, furniture, equipment and maintenance (of equipment and facilities) used by SOS only at Fort Bliss TX, (FBTX) and White Sands Missile Range NM (WSMR) during the planning and execution of NIE 14.2 and 15.1. Includes lease and support maintenance contracts for Government Service Administration (GSA) vehicles that support the NIE mission at FBTX/ WSMR; it also funds activities to divest SOSI facility holdings at WSMR. ***FY 2015 Plans:*** Provides for setup, utilities, furniture, equipment and maintenance (of all equipment and facilities) used by SOSI at Fort Bliss TX, (FBTX during the planning and execution of NIE 15.2 and 16.1. Includes lease and support maintenance contracts for Government Service Administration (GSA) vehicles that support the NIE mission at FBTX/WSMR; it does not include funding of any facilities at WSMR.	- -	1.092 -	1.120 -
Title: Network Integration Evaluation SUE support(NIE) ***Articles:*** ***Description:*** These funds provide for the following effort: To fund selected SUEs to participate in NIE during Phase V of the Army's Agile process. ***FY 2014 Plans:***	- -	1.015 -	1.004 -

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Provides funding to support integration and evaluation, to support semi-annual events of industry and government technologies which are being selected as SUEs for participation in NIE 14.2 & 15.1. These funds cover the NIE participant's (Emerging and existing technologies, and contractors) costs for travel, and shipment of equipment, Contractor Field Service Representatives (CFSRs) integration A-kit development, and the purchase of additional prototypes when needed to effectively complete detailed evaluations of the complete network architecture. Includes costs for development of integration hardware and software (A-KIT design support). In preparation for the NIE, the selected units participate in the NIE VALEX at FBTX. After hand-off of vehicles, the participating test units deploy to the tactical training/evaluation areas on FBTX and WSMR to complete the NIE event (4 weeks). Their effort also supports any unique SUE support requirements (such as escort personnel, transportation, or facilities). ***FY 2015 Plans:*** Provides funding to support integration and evaluation, to support semi-annual events of industry and government technologies which are being selected as SUEs for participation in NIE 15.2 & 16.1. These funds cover the NIE participant's (Emerging and existing technologies, and contractors) costs for travel, and shipment of equipment, Contractor Field Service Representatives (CFSRs) integration A-kit development, and the purchase of additional prototypes when needed to effectively complete detailed evaluations of the complete network architecture. Includes costs for development of integration hardware and software (A-KIT design support). In preparation for the NIE, the selected units participate in the NIE VALEX at FBTX. After hand-off of vehicles, the participating test units deploy to the tactical training/evaluation areas on FBTX and WSMR to complete the NIE event (4 weeks). This effort also supports any unique SUE support requirements (such as escort personnel, transportation, or facilities).			
Title: Platform/BDE Integration Management Support	-	7.961	7.720
Articles:	-	-	-
Description: These funds provide for all SOSI government and contract personnel who provide direct management, systems engineering, and specialty engineering support to the Platform and Brigade Integration efforts at Ft Bliss in support of the NIE. ***FY 2014 Plans:*** This effort includes all program, information, security, business, and personal management efforts required to support the Network Integration teams. It includes: • Program management • Schedule development and management; • Contracting and financial management; • Cost analysis; • Personnel management; • Operations; • Security management; • NIE event management;			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
• Information Assurance; • Information management; • Database and IT support; • Facilities and infrastructure management; and, • Knowledge management. In addition to people, costs include all IT support for Network connectivity i.e., purchasing/leasing hardware, software, computers, communications equipment and services. ***FY 2015 Plans:*** This effort includes all program, information, security, business, and personal management efforts required to support the Network Integration teams. It includes: • Program management • Schedule development and management; • Contracting and financial management; • Cost analysis; • Personnel management; • Operations; • Security management; • NIE event management; • Information Assurance; • Information management; • Database and IT support; • Facilities and infrastructure management; and, • Knowledge management. In addition to people, costs include all IT support for Network connectivity i.e., purchasing/leasing hardware, software, computers, communications equipment and services.			
Accomplishments/Planned Programs Subtotals	-	44.576	43.606

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• DY3: *DY3 NIE Test & Evaluation*	-	14.992	24.785	-	24.785	17.621	16.685	14.800	14.823	Continuing	Continuing
• DY4: *DY4 Network Integration Support*	-	15.792	20.418	-	20.418	18.549	17.569	15.589	15.613	Continuing	Continuing

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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• DY5: *DY5 Production/Fielding Coordination for Capability Sets*	-	4.198	2.802	-	2.802	4.953	4.681	4.145	4.155	Continuing	Continuing
• DY7: *DY7 Army Systems Engineering, Architecture and Analysis*	-	14.392	9.642	-	9.642	16.913	16.016	14.209	14.231	Continuing	Continuing
• DZ6: *DZ6 Army Integration & Coordination Management*	-	5.997	4.026	-	4.026	7.064	6.680	5.920	5.936	Continuing	Continuing

Remarks

D. Acquisition Strategy

During the planning of NIE 13.2 the government focused on identifying and evaluating systems against the Army's known gaps and utilized a Sources Sought solicitation to invite industry's participation in each NIE. Industry's initial white paper submissions for participation at NIE generally result in no Cost to the government. But there are exceptions, which yield cost such as ensuring small business can participate and if the government needs additional FSR support or hardware to fully represent the Brigade requirements. For FY 2013 and out, the government will use one of two acquisition strategies; First the government will issue a sources sought request to fill the known gaps (utilizing current practices), or the government will use either an existing government contract or a Request for Proposal (RFP) as the means of solicitation for industry's participation in the NIE, the RFP and contracts this will include a participant's production option. The Sources Sought process will be used to help clarify gaps definition and solution sets, where as RFPs will be used when the government's technical community can define the commodity desired to fill a gap with clear and concise selection criteria. The Army is developing a DA PAM to document this process.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Platform Integration Support	TBD	Various Note: 1 : TBD	0.000	-		9.763	Nov 2013	16.223	Nov 2014	-		16.223	-	25.986	-
Brigade Integration Support	TBD	Various Note: 1 : TBD	0.000	-		9.066	Nov 2013	11.830	Nov 2014	-		11.830	-	20.896	-
Network Integration Support	TBD	Various Note: 1 : TBD	0.000	-		8.889	Nov 2013	5.709	Nov 2014	-		5.709	-	14.598	-
Network Integration Evaluation SUE support (NIE)	TBD	Various Note: 1 : TBD	0.000	-		12.522	Nov 2013	1.804	Nov 2014	-		1.804	-	14.326	-
Platform/BDE Integration Management Support	TBD	Various Note: 1 : TBD	0.000	-		1.801	Nov 2013	4.920	Nov 2014	-		4.920	-	6.721	-
		Subtotal	0.000	-		42.041		40.486		-		40.486	-	82.527	-

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at TACOM (Warren MI), FT Bliss (TX), White Sands Missile Range (NM).
- Program Integration support through various PMs, PEOs, RDECOM, and a multitude of small support and industry contractors.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Infrastructure Support	TBD	Various Note: 1 : TBD	0.000	-		2.535	Nov 2013	3.120	Nov 2014	-		3.120	-	5.655	-
		Subtotal	0.000	-		2.535		3.120		-		3.120	-	5.655	-

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at FT Bliss (TX), White Sands Missile Range (NM).
- Program Integration support through various PMs, PEOs, RDECOM, and a multitude of small support and industry contractors.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
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	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		44.576		43.606		-		43.606	-	88.182	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
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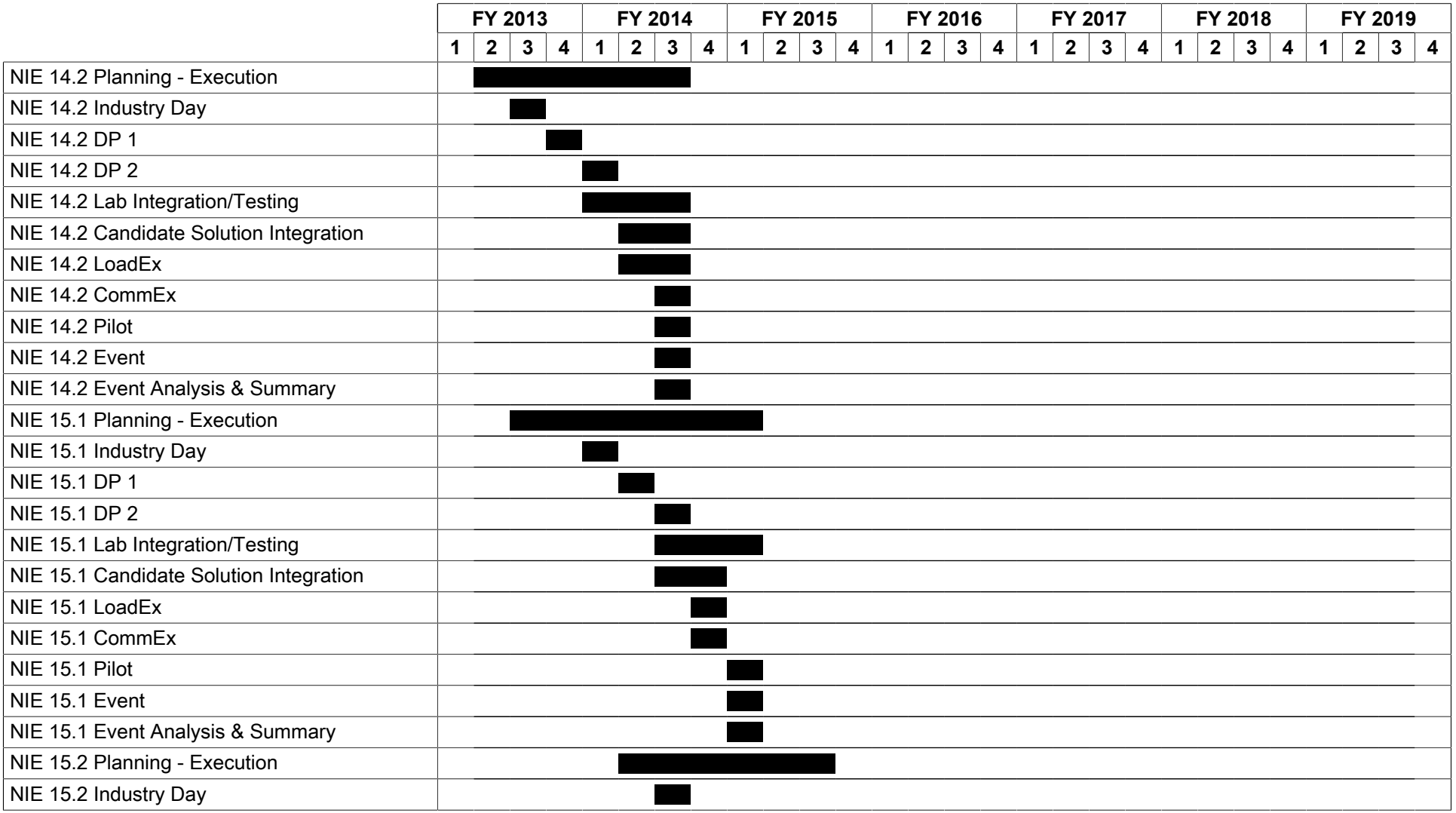

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
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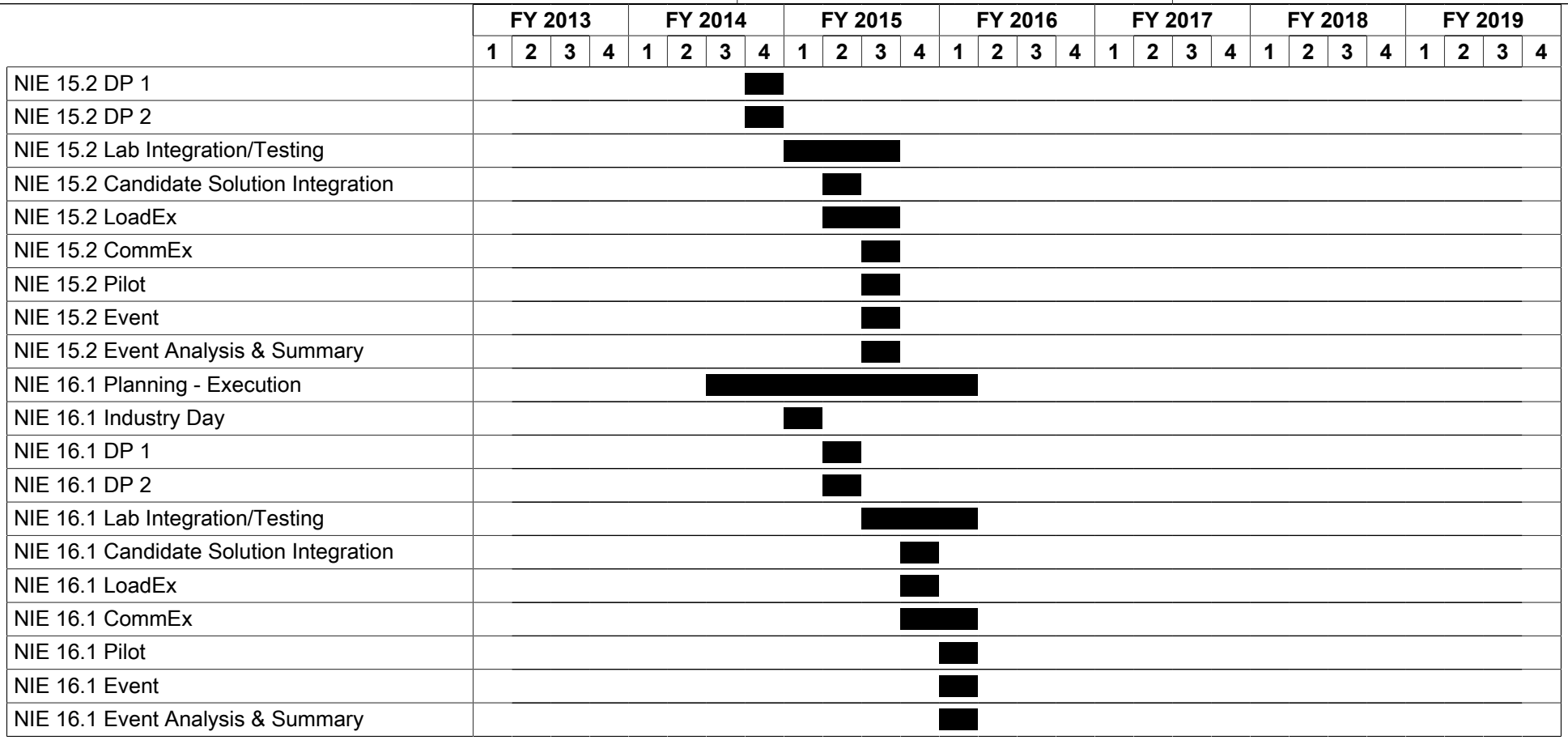

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
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Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 14.2 Planning - Execution	2	2013	3	2014
NIE 14.2 Industry Day	3	2013	3	2013
NIE 14.2 DP 1	4	2013	4	2013
NIE 14.2 DP 2	1	2014	1	2014
NIE 14.2 Lab Integration/Testing	1	2014	3	2014
NIE 14.2 Candidate Solution Integration	2	2014	3	2014
NIE 14.2 LoadEx	2	2014	3	2014
NIE 14.2 CommEx	3	2014	3	2014
NIE 14.2 Pilot	3	2014	3	2014
NIE 14.2 Event	3	2014	3	2014
NIE 14.2 Event Analysis & Summary	3	2014	3	2014
NIE 15.1 Planning - Execution	3	2013	1	2015
NIE 15.1 Industry Day	1	2014	1	2014
NIE 15.1 DP 1	2	2014	2	2014
NIE 15.1 DP 2	3	2014	3	2014
NIE 15.1 Lab Integration/Testing	3	2014	1	2015
NIE 15.1 Candidate Solution Integration	3	2014	4	2014
NIE 15.1 LoadEx	4	2014	4	2014
NIE 15.1 CommEx	4	2014	4	2014
NIE 15.1 Pilot	1	2015	1	2015
NIE 15.1 Event	1	2015	1	2015
NIE 15.1 Event Analysis & Summary	1	2015	1	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY6 / *Brigade and Platform Integration Support*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 15.2 Planning - Execution	2	2014	3	2015
NIE 15.2 Industry Day	3	2014	3	2014
NIE 15.2 DP 1	4	2014	4	2014
NIE 15.2 DP 2	4	2014	4	2014
NIE 15.2 Lab Integration/Testing	1	2015	3	2015
NIE 15.2 Candidate Solution Integration	2	2015	2	2015
NIE 15.2 LoadEx	2	2015	3	2015
NIE 15.2 CommEx	3	2015	3	2015
NIE 15.2 Pilot	3	2015	3	2015
NIE 15.2 Event	3	2015	3	2015
NIE 15.2 Event Analysis & Summary	3	2015	3	2015
NIE 16.1 Planning - Execution	3	2014	1	2016
NIE 16.1 Industry Day	1	2015	1	2015
NIE 16.1 DP 1	2	2015	2	2015
NIE 16.1 DP 2	2	2015	2	2015
NIE 16.1 Lab Integration/Testing	3	2015	1	2016
NIE 16.1 Candidate Solution Integration	4	2015	4	2015
NIE 16.1 LoadEx	4	2015	4	2015
NIE 16.1 CommEx	4	2015	1	2016
NIE 16.1 Pilot	1	2016	1	2016
NIE 16.1 Event	1	2016	1	2016
NIE 16.1 Event Analysis & Summary	1	2016	1	2016

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY7 / *Army Systems Engineering, Architecture & Analysis*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DY7: *Army Systems Engineering, Architecture & Analysis*	-	-	14.392	9.642	-	9.642	16.913	16.016	14.209	14.231	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

This project provides the Army's leadership and materiel developers with the necessary system of systems engineering (SOSE), analysis and architectural products to manage and shape the Army's materiel portfolio (5 and 30 year plans); to shape future Network Capability Sets that include Operational Capability Sets (OCS) and Institutional Capability Sets (ICS)(per the approved CIO/G6 LandWarNet 2020 and beyond strategy) and corresponding post/camp/station modernization and integrated base defense; to ensure Systems Engineering discipline across the Materiel developer community throughout the acquisition life, engineering policy and system standards, guidelines. It creates a system of systems level environment that empowers the Acquisition Community through an unsurpassed agile, collaborative, productive, lean and trusted information enterprise. This project includes support to other DOD and international agencies for joint programs and collaboration efforts with NIE and Force Basing/Tactical Capability Set portfolio integration. The Government effort includes costs for salaries, travel, overtime, training, supplies, facilities, and IT support.

This project establishes the capability to develop and deliver the system of system engineering, analysis and architecture products that facilitate analysis & trades and provide timely relevant information to inform decision makers and guide the Army's modernization efforts. This project provides for the development and implementation of a comprehensive set analysis and system architectures that shape the Army's priorities and processes, and synchronizes the enterprise architecture development capability across Assistant Secretary of the Army (Acquisition, Logistics, and Technology) (ASA (ALT)) is cohesive within the agile process. It provides for development and maintenance of the overarching end-to-end LandWarNet (LWN) Network Capability Set (NCS) System of Systems (SOS) Reference Architecture with included NCS SoS Specification and all Army formations that form the basis for representing and communicating the Army's programmed plan to HQDA customers and Program Executive Officers/Program Managers (PEOs/PMs). The LWN NCS SoS Reference Architecture is composed of the NCS Institutional Capability Set SoS Reference Architecture and the NCS Operational Capability Set SoS Reference Architecture. The Institutional Capability Set is composed of the Enterprise Component and Installation Component. Communications and computing for Base Camps and Brigade Combat Teams are included in the NCS Operational Capability Set. It enables analyses and trades that use the reference architecture design data to inform implementation architectures and support informed systems acquisition decisions across the life cycle. It provides for single authority within ASA(ALT) for System of Systems Implementation Architecture oversight to manage governance and approvals of emerging system designs, it also ensures the linkage of architecture products to events (NIE, CS, Weapons Systems Reviews (WSRs), Integrated WSRs (I-WSR),

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
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supporting the Program Objective Memorandum (POM) process)), processes, and customer requirements. The data is organized in order to support views and analysis across organizational, portfolio, and budgeting bins.

Among the key products/processes developed by SOSE is the System of Systems Engineering Management Plan. This plan provides the disciplined and coordinated SoS analysis, engineering and architectural products in order to support strategic and enterprise decision making, efficient capability growth and effective Army modernization. Another is the Common Operation Environment (COE) vision, strategy, and implementation plan for the Army that aims to converge solutions to a common framework, increase cyber security, decrease life cycle costs, and improve interoperability, and leverage industry and GOTS solutions. These documents establish and expose to industry the technical standards, which any sized vendor can understand, internalize and build towards. This efficiency helps increase competition and helps lower software and hardware integration burden and costs. The implementation plan is a living document that will remain flexible as the Army continues to evolve its network standards and fielding methods. The Implementation Plan calls for the Army to continuously seek industry and service's input throughout the COE life cycle. This project provides for technical support to oversee the execution of the COE Implementation plan, COE Orchestration, Verification and Validation (V&V), and Governance. It also provides for the development and execution of COE integration policies and procedures, the development and implementation of backwards capability testing, integration checklists and their verification, test hardware development and implementation support. It provides for COE architecture validation, design baseline validation, and the verification of COE reference architecture compliance.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Army System of System Engineering and Analysis	-	10.173	6.817
Articles:	-	-	-
Description: To develop Operational (Brigade) Reference and Implementation Architectures, to support NIE, to develop Capability Sets, to develop Network Capability Sets (NCS), to develop Integrated Base Defense (IBD), and to support Army POM and 30 year plans. This effort begins with TRADOC's and CIO/G-6's operational and technical architecture requirements.			
FY 2014 Plans: The funds provide the following: Synchronizing ongoing System-of-Systems (SoS) engineering and analysis to develop the following products: - Support development of products necessary for the CS17-21 WSR process - Continue development of TCS15 Reference Architecture - Begin development of TCS16 Reference Architecture - Analyze and integrate stakeholder strategies and roadmaps to identify acquisition modernization priorities that support engineering design of Reference Architectures for POM year Capability Sets - Support development of the material solutions strategy Army Campaign Plan - Continue to develop and deliver the SBCT Analysis for TCS 15-19 - Continue to develop and deliver the IBCT Analysis for TCS 15-19 - Continue AIC Mission thread refinement - Develop and maintain analyses that shape evolving Army portfolio priorities			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
- Develop the LandWarNet (LWN) Network Capability Set (NCS) System of Systems (SoS) Reference Architecture (RA) and Specification (Spec) - Develop the LWN NCS SoS RA & Spec - Develop the LWN NCS Institutional Capability Set SoS RA and Spec - Develop the LWN NCS Operational Capability Set SoS RA and Spec - Develop the LWN NCS Installation Component SoS RA and Spec - Develop the LWN NCS Enterprise Component SoS RA and Spec - Communications and Computing Infrastructure FY18 (Annual) OCONUS Base Camps Reference Architecture - Integrated Base Defense FY18 (Annual) OCONUS Base Camps Reference Architecture - Integrated Base Defense FY18 (Annual) CONUS Installations Reference Architecture ***FY 2015 Plans:*** The funds provide the following: Synchronizing ongoing System-of-Systems (SoS) engineering, analysis, and architecture to develop and distribute the following products to Program Executive Offices (PEOs), Program of Records (PORs), Program Managers (PMs) and Science & Technology (S&T) in order for them to develop their Weapons System Review (WSR) packages for WSR 18-22 for Tactical Capability Set (TCS): - CS23: Refined "Requirements"; Gaps and POR Identification - CS22: Refined Gaps and Objectives identification which will support the development of the Sources Sought (SS) and Tech Call Memo (TC); Basis of Issue (BOI), Platform Interconnect Diagram (PID), and the Transport Design (TD) for NIE 19.1 (Experimental Event) - CS21: Based upon NIE18.1 Horse Blanket, Refined Gaps and create Specifications, which will support the development of the (Tech Evaluation Criteria, and Scope of Work) for competitive Request for Proposal (RFP) and Tech Call Memo (TC) for NIE 19.2 - CS20: Refined Basis of Issue (BOI) for the development of NIE 18.2. (Baseline Event) - CS19: Finalize Basis of Issue (BOI) for Production funding for the Tactical Capability Set 19, Synchronizing ongoing System-of-Systems (SoS) engineering, analysis, and architecture to develop and distribute the following products to HQDA customers, Program Executive Offices (PEOs), Program of Records (PORs), Program Managers (PMs), and Science & Technology (S&T) in order for them to develop their program plans for CIO/G-6 and the Installation (II) PEG for POM 18-22: - LandWarNet (LWN) Network Capability Set (NCS) System of Systems (SoS) Reference Architecture (RA) (with included NCS SoS Specification) - LWN NCS Institutional Capability Set SoS Reference Architecture - LWN NCS Operational Capability Set SoS Reference Architecture. The Institutional Capability Set			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
- Enterprise Component of the LWN NCS Institutional CS SoS RA - Installation Component of the LWN NCS Institutional CS SoS RA Synchronizing ongoing System-of-Systems (SoS) engineering, analysis, and architecture to develop and distribute the following products to HQDA customers, Program Executive Offices (PEOs), Program of Records (PORs), Program Managers (PMs), and Science & Technology (S&T) in order for them to develop their program plans for Integrated Weapon Systems Review (I-WSR) FY18-22: - Integrated Base Defense FY19 (Annual) OCONUS Base Camps Reference Architecture - Integrated Base Defense FY19 (Annual) CONUS Installations Reference Architecture System-of-Systems (SoS) engineering, analysis, and architecture to develop and distribute the following products to ASA(ALT) System of System Integration (SoSI) for the execution of NIEs and the fielding of Tactical Capability Sets to the Warfighter: - CCI OCONUS Base Camps Reference Architecture - IBD CONUS Installations Reference Architecture - IBD OCONUS Base Camps Reference Architecture - Integration and Coordination of Installation, Enterprise, ICS, OCS and NCS Reference Architectures - SV1 SoS Overviews - SV2 Transport overlay - Analyze and integrate stakeholder strategies and roadmaps to identify acquisition modernization priorities that support engineering design of Reference Architectures for POM year Capability Sets - Support development of the material solutions strategy Army Campaign Plan - Develop and maintain analyses that shape evolving Army portfolio priorities			
Title: Common Operating Environment (COE)	-	3.120	2.089
Articles:	-	-	-
Description: Army Systems Engineering & (COE) Development/Validation to Provide Technical Support for the Execution of the Army System Engineering in COE Implementation. ***FY 2014 Plans:*** The funds provide: Technical support to oversee the execution of the COE Implementation plan, COE Orchestration, Governance, Cross-Cutting Capabilities Definition, Implementation Plan Updates, Software Build (SWB)/COE Configuration Control Board (CCB) and Test Support transition, Integrated Master Schedule, Government oversight of the Army's Strategic Software Improvement Program (ASSIP), Coordination with Army Staff, Technical Reference Model, Metrics for assessing compliance, Technical Advisory Board (TAB), Chief Engineer (CE) compliance, COE assessment criteria, Assess systems during the System			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Under Evaluation (SUE) Technical Interface Meeting (TIM), System software configuration baseline data collection, System software configuration baseline updates, Control Point/Interface Definition and Agreements, Afghan Mission Network, Ops/ Intel Convergence, Transport Convergence, Network Synchronization Working Group , Joint Interoperability & Mission Thread Architecture Office of Secretary Defense (OSD) Director Defense Research and Engineering (DDR&E), Integrated Base Defense (IBD), Basing and Basing Computing/Communications Analysis, Host Based Security System (HBSS), Global Network Enterprise Construct (GNEC) Implementation Plan, Radio Procurement Requests, SoS Engineering Construct for the Network, Organizing the SoS Engineering trade space for Platforms, Standards for the Platforms (VICTORY & FACE), Size Weight and Power (SWAP) working group, Software Blocking (SW), NIE Gaps, Candidate Assessment for NIEs 14.2 and 15.1, and Technologies assessment, Systems Engineering Plan (SEP) policy, Program Protection Plan (PPP) reviews, Reliability policy technical support, Standards & Speciation adoption across ASA(ALT) and OSD/Joint, Development Planning model, Basing Pilot. It also provides for the development and execution of COE integration policies and procedures, the development and implementation of backwards capability testing, integration checklists and their verification, test hardware development and implementation support. The development and effective utilization of emulator and integration tools. Provides for COE/CE architecture validation, design baseline validation, and the verification of COE reference architecture compliance. The verification of COE critical enabler implementation, conducting risk assessments and analysis, accreditation and certification process refinement, and verification of technical test harness and tool development. Provides for the accreditation, certification and refinement of test plans and events. ***FY 2015 Plans:*** The funds provide: Technical support to oversee the execution of the COE Implementation plan, COE Orchestration, Governance, Cross-Cutting Capabilities Definition, Implementation Plan Updates, Software Build (SWB)/COE Configuration Control Board (CCB) and Test Support transition, Integrated Master Schedule, Government oversight of the Army's Strategic Software Improvement Program (ASSIP), Coordination with Army Staff, Technical Reference Model, Metrics for assessing compliance, Technical Advisory Board (TAB), Chief Engineer (CE) compliance, COE assessment criteria, Assess systems during the System Under Evaluation (SUE) Technical Interface Meeting (TIM), System software configuration baseline data collection, System software configuration baseline updates, Control Point/Interface Definition and Agreements, Afghan Mission Network, Ops/ Intel Convergence, Transport Convergence, Network Synchronization Working Group , Joint Interoperability & Mission Thread Architecture Office of Secretary Defense (OSD) Director Defense Research and Engineering (DDR&E), Integrated Base Defense, Basing and Basing Computing/Communications Analysis, Host Based Security System (HBSS), Global Network Enterprise Construct (GNEC) Implementation Plan, Radio Procurement Requests, SoS Engineering Construct for the Network, Organizing the SoS Engineering trade space for Platforms, Standards for the Platforms (VICTORY & FACE), Size Weight and Power (SWAP) working group, Software Blocking (SW), NIE Gaps, Candidate Assessment for NIEs 15.2 and 16.1, and Technologies assessment, Systems Engineering Plan (SEP) policy, Program Protection Plan (PPP) reviews, Reliability policy technical support, Standards & Speciation adoption across ASA(ALT), (OSD/Joint), Development Planning model, IBD, Basing Pilot). It also provides for the development and execution of COE integration policies and procedures, the development and implementation			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
of backwards capability testing, integration checklists and their verification, test hardware development and implementation support. The development and effective utilization of emulator and integration tools. Provides for COE/CE architecture validation, design baseline validation, and the verification of COE reference architecture compliance. The verification of COE critical enabler implementation, conducting risk assessments and analysis, accreditation and certification process refinement, and verification of technical test harness and tool development.			
Title: Facilities and IT Support	-	1.099	0.736
Articles:	-	-	-
Description: Provides funding for infrastructure/facilities and IT support. ***FY 2014 Plans:*** Provides funding for infrastructure/facilities. It includes the cost for government IT support from Network connectivity to purchasing/leasing hardware, software, computers, communications equipment and services. ***FY 2015 Plans:*** Provides funding for infrastructure/facilities. It includes the cost for government IT support from Network connectivity to purchasing/leasing hardware, software, computers, communications equipment and services.			
Accomplishments/Planned Programs Subtotals	-	14.392	9.642

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• DY3: *DY3 NIE Test & Evaluation*	-	14.992	24.785	-	24.785	17.621	16.685	14.800	14.823	Continuing	Continuing
• DY4: *DY4 Network Integration Support*	-	15.792	20.418	-	20.418	18.549	17.569	15.589	15.613	Continuing	Continuing
• DY5: *DY5 Production/Fielding Coordination for Capability Sets*	-	4.198	2.802	-	2.802	4.953	4.681	4.145	4.155	Continuing	Continuing
• DY6: *DY6 Brigade and Platform Integration Support*	-	44.576	43.606	-	43.606	52.996	54.940	58.807	58.895	Continuing	Continuing
• DZ6: *DZ6 Army Integration & Coordination Management*	-	5.997	4.026	-	4.026	7.064	6.680	5.920	5.936	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

D. Acquisition Strategy

This project does not have any requirement for direct procurement of hardware or software.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DY7 / *Army Systems Engineering, Architecture & Analysis*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Army System of System Engineering and Analysis	TBD	Various Note: 1 : TBD	0.000	-		11.305	Nov 2013	6.817	Nov 2014	-		6.817	-	18.122	-
Common Operating Environment (COE)	TBD	Various Note: 1 : TBD	0.000	-		2.499	Nov 2013	2.089	Nov 2014	-		2.089	-	4.588	-
		Subtotal	0.000	-		13.804		8.906		-		8.906	-	22.710	-

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), Taylor Bldg, (Crystal City, VA), Pentagon, (Washington DC), TACOM (Warren, MI)

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Facility and IT Support	TBD	Various: Note: 1 : TBD	0.000	-		0.588	Nov 2014	0.736	Nov 2014	-		0.736	-	1.324	-
		Subtotal	0.000	-		0.588		0.736		-		0.736	-	1.324	-

Remarks

Note:1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), Taylor Bldg, (Crystal City, VA), Pentagon, (Washington DC), TACOM (Warren, MI)

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		14.392		9.642		-		9.642	-	24.034	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

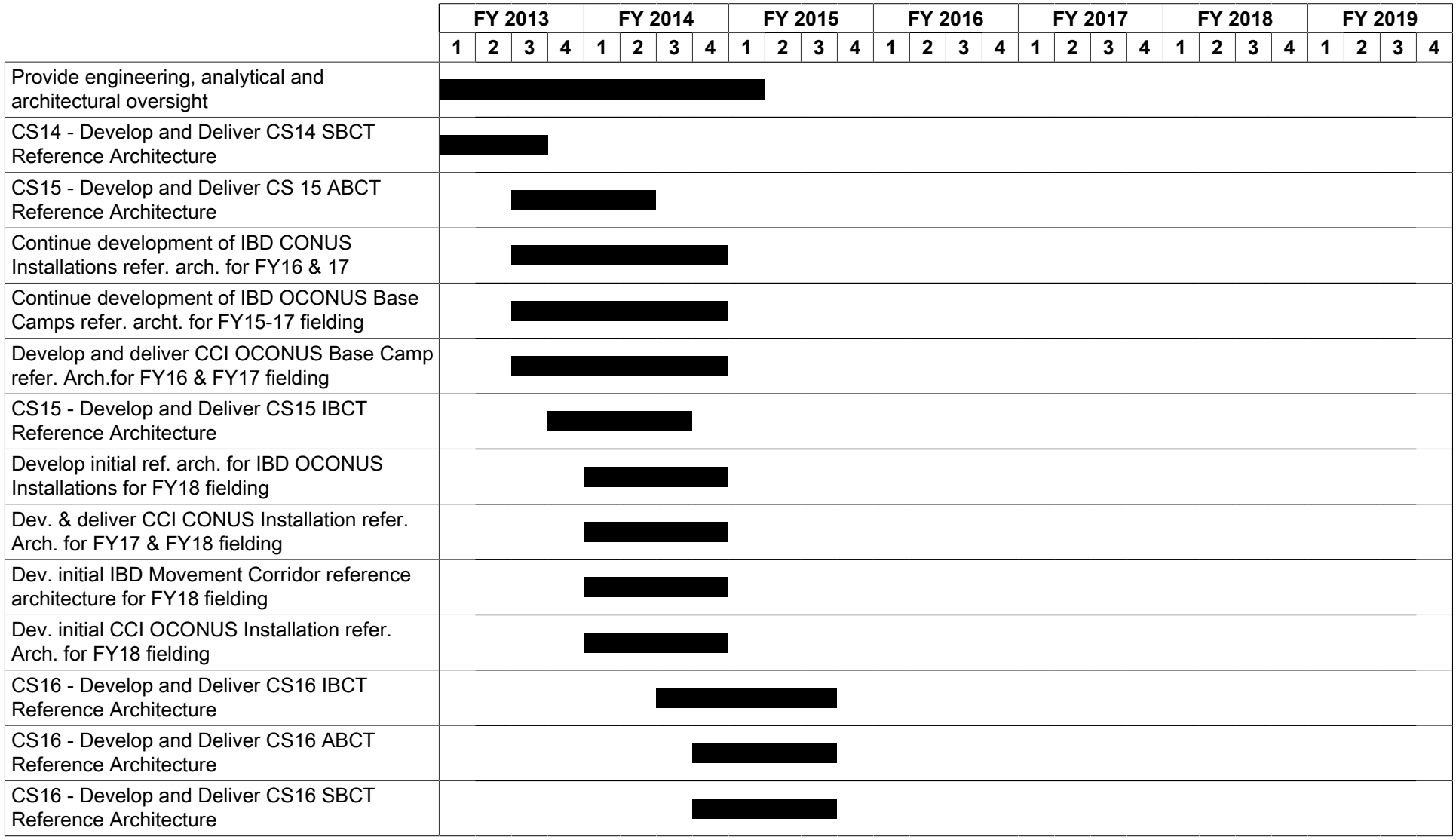

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
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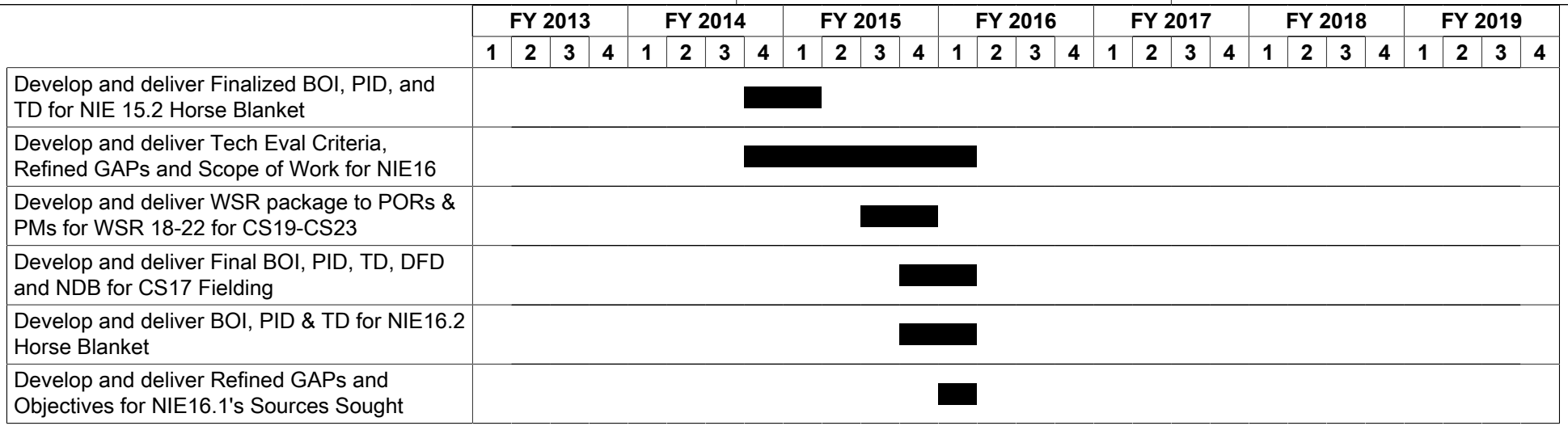

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DY7 / *Army Systems Engineering, Architecture & Analysis*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Provide engineering, analytical and architectural oversight	1	2013	1	2015
CS14 - Develop and Deliver CS14 SBCT Reference Architecture	4	2012	3	2013
CS15 - Develop and Deliver CS 15 ABCT Reference Architecture	3	2013	2	2014
Continue development of IBD CONUS Installations refer. arch. for FY16 & 17	3	2013	4	2014
Continue development of IBD OCONUS Base Camps refer. archt. for FY15-17 fielding	3	2013	4	2014
Develop and deliver CCI OCONUS Base Camp refer. Arch.for FY16 & FY17 fielding	3	2013	4	2014
CS15 - Develop and Deliver CS15 IBCT Reference Architecture	4	2013	3	2014
Develop initial ref. arch. for IBD OCONUS Installations for FY18 fielding	1	2014	4	2014
Dev. & deliver CCI CONUS Installation refer. Arch. for FY17 & FY18 fielding	1	2014	4	2014
Dev. initial IBD Movement Corridor reference architecture for FY18 fielding	1	2014	4	2014
Dev. initial CCI OCONUS Installation refer. Arch. for FY18 fielding	1	2014	4	2014
CS16 - Develop and Deliver CS16 IBCT Reference Architecture	3	2014	3	2015
CS16 - Develop and Deliver CS16 ABCT Reference Architecture	4	2014	3	2015
CS16 - Develop and Deliver CS16 SBCT Reference Architecture	4	2014	3	2015
Develop and deliver Finalized BOI, PID, and TD for NIE 15.2 Horse Blanket	4	2014	1	2015
Develop and deliver Tech Eval Criteria, Refined GAPs and Scope of Work for NIE16	4	2014	1	2016
Develop and deliver WSR package to PORs & PMs for WSR 18-22 for CS19-CS23	3	2015	4	2015
Develop and deliver Final BOI, PID, TD, DFD and NDB for CS17 Fielding	4	2015	1	2016
Develop and deliver BOI, PID & TD for NIE16.2 Horse Blanket	4	2015	1	2016
Develop and deliver Refined GAPs and Objectives for NIE16.1's Sources Sought	1	2016	1	2016

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DZ6 / *Army Integration Management & Coordination*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DZ6: *Army Integration Management & Coordination*	-	-	5.997	4.026	-	4.026	7.064	6.680	5.920	5.936	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project will support the management and coordination of all six Phases of the Army's Agile Network Integration process along with the Army System of System engineering and analysis architecture development for the Army. The project will fund the "shared" resources that support the technical and management (i.e. headquarters, resource management, acquisition, affordability, human resources, operations, etc.) aspects of the Army's Agile Network Integration process and coordination of Production Integration and Fielding of the Tactical Capability Set (TCS). The "shared" resources reduce overall cost to the program by spreading this support for three directorates, sharing the personnel and cost for direct support. This project also includes coordination of ASA(ALT) schedules and affordability analysis to meet the Army System of System architecture objectives developed under DY7.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: SoSE&I Program Management and Integration	-	5.236	3.515
Articles:	-	-	-
Description: This effort funds for all "shared" resources that supports the Brigade Analysis, Integration and Evaluation program. ***FY 2014 Plans:*** This effort includes program, information, security, business, and personal management efforts required to support the SoSI integration teams. It includes the following types of activities: Program management, contracting, financial management, cost analysis, personnel management, operations, security management, information management, facilities and infrastructure management, Pentagon liaison, knowledge management. ***FY 2015 Plans:*** This effort includes program, information, security, business, and personal management efforts required to support the ASA(ALT) System of System Engineering and Integration Directorate. This includes; support of the system of system engineering process, the ASSALT integrated master schedule development and implementation, support of the Lab Based Risk Reduction and network integration effort, support of the NIE, and support of synchronized fielding. It includes the following types of activities: Program management, contracting, financial management, cost analysis, personnel management, operations, security management, information management, facilities and infrastructure management, Pentagon liaison, knowledge management.			
Title: Facilities and IT Support	-	0.761	0.511

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: Provides funding for infrastructure/facilities and IT support. ***FY 2014 Plans:*** Provides funding for infrastructure/facilities, and government personnel IT support from Network connectivity to purchasing/leasing hardware, software, computers, communications equipment and services. ***FY 2015 Plans:*** Provides funding for infrastructure / facilities, and government personnel IT support from Network connectivity to purchasing/ leasing hardware, software, computers, communications equipment and services.			
Accomplishments/Planned Programs Subtotals	-	5.997	4.026

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• DY3: *DY3 NIE Test & Evaluation*	-	14.992	24.785	-	24.785	17.621	16.685	14.800	14.823	Continuing	Continuing
• DY4: *DY4 Network Integration Support*	-	15.792	20.418	-	20.418	18.549	17.569	15.589	15.613	Continuing	Continuing
• DY5: *DY5 Production/Fielding Coordination for Capability Sets*	-	4.198	2.802	-	2.802	4.953	4.681	4.145	4.155	Continuing	Continuing
• DY6: *DY6 Brigade and Platform Integration Support*	-	44.576	43.606	-	43.606	52.996	54.940	58.807	58.895	Continuing	Continuing
• DY7: *DY7 Army Systems Engineering, Architecture and Analysis*	-	14.392	9.642	-	9.642	16.913	16.016	14.209	14.231	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project includes the purchase of IT hardware, software and service support; general office and operational supplies.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604798A / *Brigade Analysis, Integration and Evaluation*	Project (Number/Name) DZ6 / *Army Integration Management & Coordination*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SoSE&I Program Management and Integration	TBD	Various Note: 1 : TBD	0.000	-		4.309	Nov 2013	3.515	Nov 2014	-		3.515	-	7.824	-
		Subtotal	0.000	-		4.309		3.515		-		3.515	-	7.824	-

Remarks

Note: 1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), TACOM (Warren MI), Taylor Bldg, (Crystal City, VA), Pentagon, (Washington DC).

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Facilities and IT Support	TBD	Various Note: 1 : TBD	0.000	-		1.688	Nov 2013	0.511	Nov 2014	-		0.511	-	2.199	-
		Subtotal	0.000	-		1.688		0.511		-		0.511	-	2.199	-

Remarks

Note:1
- All funding executed from SoSE&I (Warren MI)
- Program Activities performed at Aberdeen Proving Ground (MD), TACOM (Warren MI), Taylor Bldg, (Crystal City, VA), Pentagon, (Washington DC), FT Bliss (TX), White Sands Missile Range (NM).

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		5.997		4.026		-		4.026	-	10.023	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

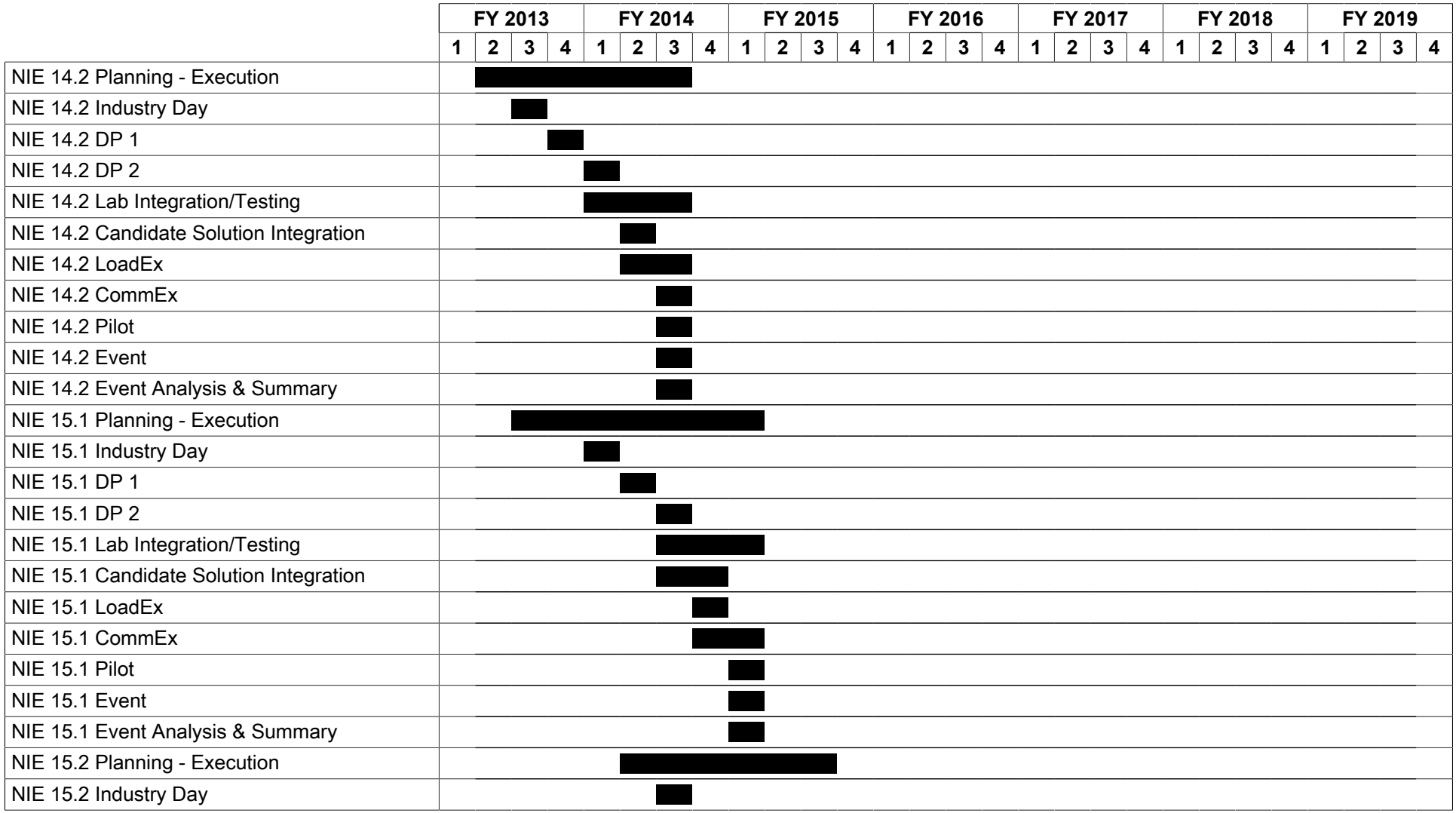

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

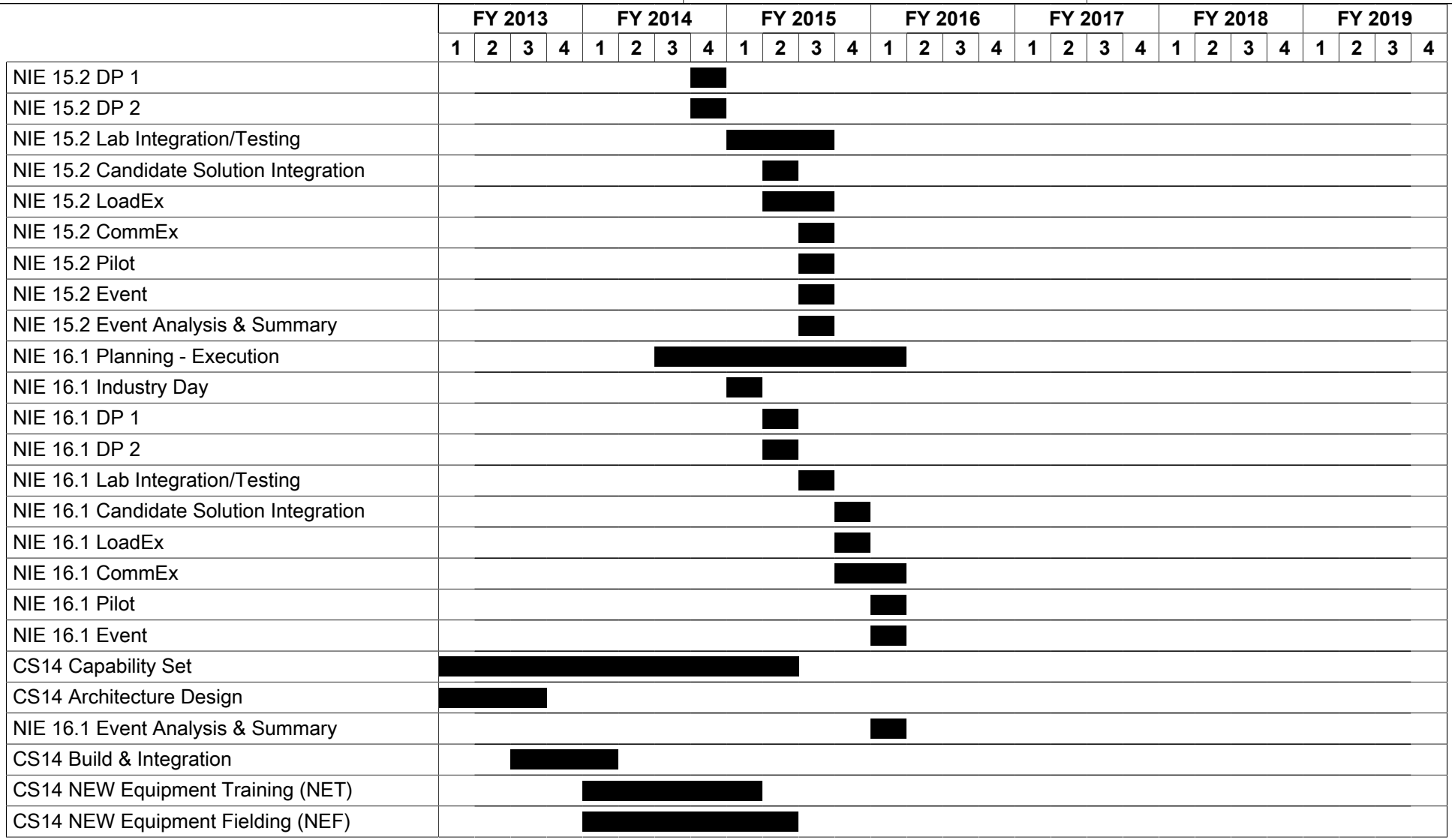

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

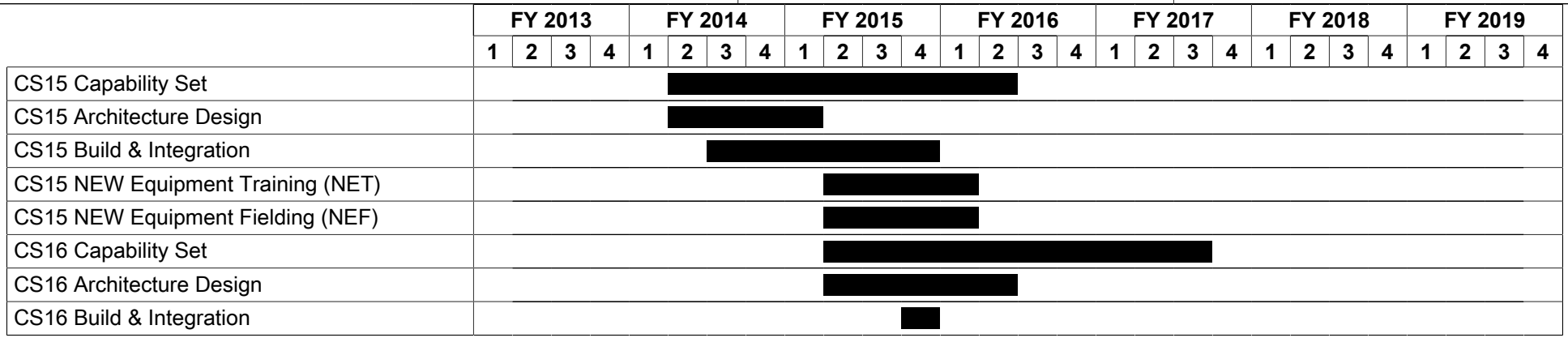

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 14.2 Planning - Execution	2	2013	3	2014
NIE 14.2 Industry Day	3	2013	3	2013
NIE 14.2 DP 1	4	2013	4	2013
NIE 14.2 DP 2	1	2014	1	2014
NIE 14.2 Lab Integration/Testing	1	2014	3	2014
NIE 14.2 Candidate Solution Integration	2	2014	2	2014
NIE 14.2 LoadEx	2	2014	3	2014
NIE 14.2 CommEx	3	2014	3	2014
NIE 14.2 Pilot	3	2014	3	2014
NIE 14.2 Event	3	2014	3	2014
NIE 14.2 Event Analysis & Summary	3	2014	3	2014
NIE 15.1 Planning - Execution	3	2013	1	2015
NIE 15.1 Industry Day	1	2014	1	2014
NIE 15.1 DP 1	2	2014	2	2014
NIE 15.1 DP 2	3	2014	3	2014
NIE 15.1 Lab Integration/Testing	3	2014	1	2015
NIE 15.1 Candidate Solution Integration	3	2014	4	2014
NIE 15.1 LoadEx	4	2014	4	2014
NIE 15.1 CommEx	4	2014	1	2015
NIE 15.1 Pilot	1	2015	1	2015
NIE 15.1 Event	1	2015	1	2015
NIE 15.1 Event Analysis & Summary	1	2015	1	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NIE 15.2 Planning - Execution	2	2014	3	2015
NIE 15.2 Industry Day	3	2014	3	2014
NIE 15.2 DP 1	4	2014	4	2014
NIE 15.2 DP 2	4	2014	4	2014
NIE 15.2 Lab Integration/Testing	1	2015	3	2015
NIE 15.2 Candidate Solution Integration	2	2015	2	2015
NIE 15.2 LoadEx	2	2015	3	2015
NIE 15.2 CommEx	3	2015	3	2015
NIE 15.2 Pilot	3	2015	3	2015
NIE 15.2 Event	3	2015	3	2015
NIE 15.2 Event Analysis & Summary	3	2015	3	2015
NIE 16.1 Planning - Execution	3	2014	1	2016
NIE 16.1 Industry Day	1	2015	1	2015
NIE 16.1 DP 1	2	2015	2	2015
NIE 16.1 DP 2	2	2015	2	2015
NIE 16.1 Lab Integration/Testing	3	2015	3	2015
NIE 16.1 Candidate Solution Integration	4	2015	4	2015
NIE 16.1 LoadEx	4	2015	4	2015
NIE 16.1 CommEx	4	2015	1	2016
NIE 16.1 Pilot	1	2016	1	2016
NIE 16.1 Event	1	2016	1	2016
CS14 Capability Set	4	2012	2	2015
CS14 Architecture Design	4	2012	3	2013
NIE 16.1 Event Analysis & Summary	1	2016	1	2016
CS14 Build & Integration	3	2013	1	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604798A / *Brigade Analysis, Integration and Evaluation*	**Project (Number/Name)** DZ6 / *Army Integration Management & Coordination*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
CS14 NEW Equipment Training (NET)	1	2014	1	2015
CS14 NEW Equipment Fielding (NEF)	1	2014	2	2015
CS15 Capability Set	2	2014	2	2016
CS15 Architecture Design	2	2014	1	2015
CS15 Build & Integration	3	2014	4	2015
CS15 NEW Equipment Training (NET)	2	2015	1	2016
CS15 NEW Equipment Fielding (NEF)	2	2015	1	2016
CS16 Capability Set	2	2015	3	2017
CS16 Architecture Design	2	2015	2	2016
CS16 Build & Integration	4	2015	4	2015

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604802A / *Weapons and Munitions - Eng Dev*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	12.999	15.712	15.006	-	15.006	3.488	2.952	1.578	10.053	-	61.788
EC1: *40mm Hi Vel and Low Vel Thermal Training Cartridge*	-	-	-	6.964	-	6.964	-	-	-	-	-	6.964
EC4: *Non-Standard Simulator Munitions*	-	-	-	0.885	-	0.885	0.984	1.281	1.578	1.977	-	6.705
S36: *Precision Guidance Kit*	-	12.999	15.712	7.157	-	7.157	2.504	1.671	-	8.076	-	48.119

The FY 2015 OCO Request will be submitted at a later date.

Note

FY 2013/2014: Budget adjustments.
FY 2015: Resulted from the adjustment of S36 and addition of Projects EC1 and EC4.

A. Mission Description and Budget Item Justification

This program element funds multiple efforts for engineering development of weapons and munitions systems.

Project S36: This program funds engineering development of precision guidance systems applicable to Indirect Fire artillery weapon systems. The Precision Guidance Kit (PGK) is a Global Positioning System guidance kit with fuzing functions. PGK provides near precision accuracy and effectiveness for 155mm High Explosive artillery projectiles. PGK will improve the accuracy of existing artillery ammunition by correcting the trajectory of projectiles to their designated target location. Precision guidance systems will effectively reduce target delivery error reducing the number of rounds required to conduct a fire mission.

Project EC1: The Target Practice Day/ Night/ Thermal (TP D/N/T) cartridges are 40mm grenade training cartridges. The low velocity variant is for training with the M203/ M320 grenade launchers and the high velocity variant is for training with the Mk19 grenade machine gun. Both of these cartridges will provide the War Fighter with a non dud producing, environmentally friendly training cartridge which provides a visual and thermal impact signature that can be seen day or night, by the unaided eye or through night vision devices and thermal weapon sights. The program will carry competitive prototypes for each cartridge variant through the Engineering and Manufacturing Development (EMD) phase.

Project EC4: Army's Combat Training Centers are currently using non-standard munitions to replicate both conventional and asymmetric warfare battlefield effects. These modified commercial-off-the-shelf products have not been type classified, material released, and are not sustainable; because of these issues, risk assessment, and risk mitigation lies with the individual Training Center. Standardization of these munitions will reduce training costs, eliminate redundancies between systems, and mitigate safety risks associated with realistic scenario based training.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604802A / *Weapons and Munitions - Eng Dev*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	14.581	15.721	15.971	-	15.971
Current President's Budget	12.999	15.712	15.006	-	15.006
Total Adjustments	-1.582	-0.009	-0.965	-	-0.965
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.413	-			
• Adjustments to Budget Years	-	-	-0.965	-	-0.965
• Budget Adjustments	-1.169	-0.009	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604802A / *Weapons and Munitions - Eng Dev*	Project (Number/Name) EC1 / *40mm Hi Vel and Low Vel Thermal Training Cartridge*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
EC1: *40mm Hi Vel and Low Vel Thermal Training Cartridge*	-	-	-	6.964	-	6.964	-	-	-	-	-	6.964
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

In FY 2015 these funds transferred from PE 603639 Project 694.

A. Mission Description and Budget Item Justification

The Target Practice Day Night Thermal (TP-DNT) cartridges are 40mm grenade training cartridges. The low velocity variant is for training with the M203/M320 grenade launchers; the high velocity variant is for training with the Mk19 grenade machine gun. Both cartridges will provide the Warfighter with a non-dud producing, environmentally friendly training cartridge that provides a visual impact signature seen day or night, by the naked eye, through night vision devices, and thermal weapon sights. These cartridges will replace the 40mm Target Practice, M918/M385A1 (Mixed Belt) cartridges and the 40mm M781 cartridges. It is expected that the unit price for high velocity cartridges will be lower than the Mixed Belt cartridges.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Title: Target Practice Day Night Thermal Cartridges	-	-	6.964
Description: The Target Practice Day Night Thermal (TP-DNT) Cartridges are 40mm grenade training cartridges ***FY 2015 Plans:*** FY 2015 activities include EMD contracts award for both the HV and LV variants, Preliminary Design Reviews (PDRs), Test Readiness Reviews (TRRs), and Developmental Engineering Test 1 (DET1).			
Accomplishments/Planned Programs Subtotals	-	-	6.964

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• Target Pracice Day Night Thermal: *Target Practice Day Night Thermal Cartridges*	-	40.466	1.972	-	1.972	34.830	61.277	78.442	75.682	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604802A / *Weapons and Munitions - Eng Dev*	**Project (Number/Name)** EC1 / *40mm Hi Vel and Low Vel Thermal Training Cartridge*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost

Remarks

Production dollars will be used to procure 40mm training cartridges. If not 40mm DNT cartridges, 40mm mixed belt will be procured.

D. Acquisition Strategy

The TP-DNT cartridges will be developed through a competitive Engineering and Manufacturing Development (EMD) program. The EMD phase will develop both High Velocity (HV) and Low Velocity (LV) variants that will most likely utilize the same critical technologies, making concurrent acquisitions a logical approach to reduce overall acquisition costs. As part of the EMD source selection, a Bid Sample shoot-off competition will be conducted to evaluate potential designs. Within funding constraints, multiple contractor designs will be awarded EMD contracts with intent to down select to one contractor for the HV variant and one contractor for the LV variant. Following the down select, begin LRIP and two production year options. Milestone C scheduled for 1Q FY 2017.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604802A / *Weapons and Munitions - Eng Dev*	Project (Number/Name) EC1 / *40mm Hi Vel and Low Vel Thermal Training Cartridge*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor 1 Low Velocity	C/FFP	TBD : TBD	0.000	-		-		0.951		-		0.951	-	0.951	-
Contractor 2 Low Velocity	C/FFP	TBD : TBD	0.000	-		-		0.951		-		0.951	-	0.951	-
Contractor 1 High Velocity	C/FFP	TBD : TBD	0.000	-		-		0.951		-		0.951	-	0.951	-
Contractor 2 High Velocity	C/FFP	TBD : TBD	0.000	-		-		0.951		-		0.951	-	0.951	-
PM MAS labor and travel	MIPR	PICATINNY ARSENAL : NJ	0.000	-		-		0.460		-		0.460	-	0.460	-
		Subtotal	0.000	-		-		4.264		-		4.264	-	4.264	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ARDEC	MIPR	PICATINNY ARSENAL : NJ	0.000	-		-		1.390		-		1.390	-	1.390	-
		Subtotal	0.000	-		-		1.390		-		1.390	-	1.390	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Yuma Proving Ground (YPG)	MIPR	Yuma : AZ	0.000	-		-		1.210		-		1.210	-	1.210	-
Aberdeen Test and Evaluation Center (ATEC)	MIPR	Aberdeen : MD	0.000	-		-		0.100		-		0.100	-	0.100	-
		Subtotal	0.000	-		-		1.310		-		1.310	-	1.310	-

	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		-		6.964		-		6.964	-	6.964	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604802A / *Weapons and Munitions - Eng Dev*	Project (Number/Name) EC1 / *40mm Hi Vel and Low Vel Thermal Training Cartridge*	

	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604802A / *Weapons and Munitions - Eng Dev*	**Project (Number/Name)** EC1 / *40mm Hi Vel and Low Vel Thermal Training Cartridge*

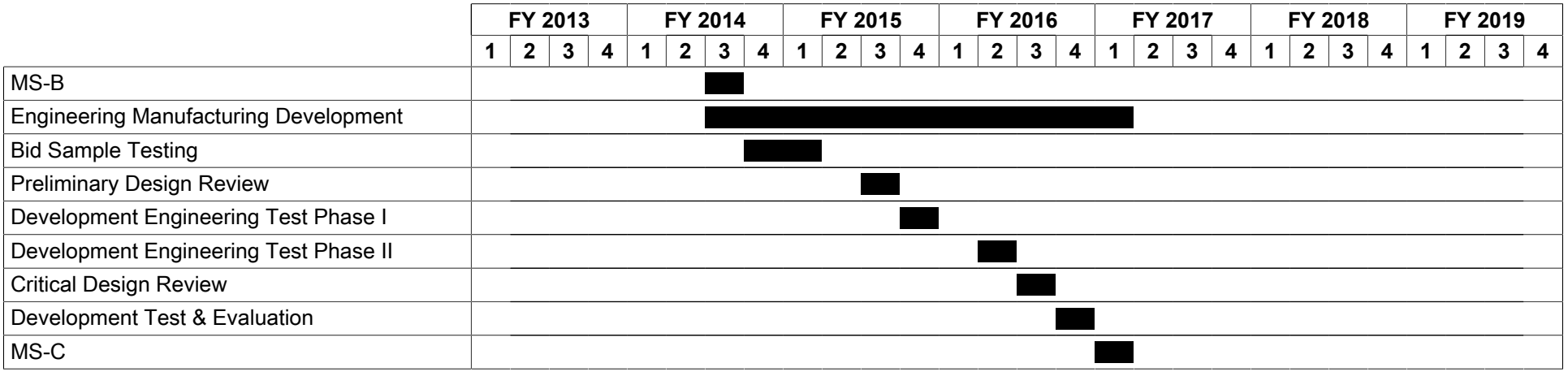

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604802A / *Weapons and Munitions - Eng Dev*	**Project (Number/Name)** EC1 / *40mm Hi Vel and Low Vel Thermal Training Cartridge*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
MS-B	3	2014	3	2014
Engineering Manufacturing Development	3	2014	1	2017
Bid Sample Testing	4	2014	1	2015
Preliminary Design Review	3	2015	3	2015
Development Engineering Test Phase I	4	2015	4	2015
Development Engineering Test Phase II	2	2016	2	2016
Critical Design Review	3	2016	3	2016
Development Test & Evaluation	4	2016	4	2016
MS-C	1	2017	1	2017

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604802A / *Weapons and Munitions - Eng Dev*	Project (Number/Name) EC4 / *Non-Standard Simulator Munitions*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
EC4: *Non-Standard Simulator Munitions*	-	-	-	0.885	-	0.885	0.984	1.281	1.578	1.977	-	6.705
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

In FY15 this project is a new start.

A. Mission Description and Budget Item Justification

Army's Combat Training Centers (CTCs), are currently using non-standard munitions to replicate both conventional and asymmetric warfare battlefield effects. These modified commercial-off-the-shelf products have not been type classified, material released, and are not sustainable; because of these issues, risk assessment, and risk mitigation lies with the individual Training Center. Standardization of these munitions will reduce training costs, eliminate redundancies between systems, and mitigate safety risks associated with realistic scenario based training.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Title: Standardize Special Use Ammunition	-	-	0.885
Description: Standardize non-standard pyrotechnic battlefield effects currently used by CTCs .			
FY 2015 Plans: This project will support development and preparation of documentation for MDD approval. The following items were identified as required capabilities to simulate battlefield effects: a. Black smoke signature (burning vehicles, buildings, and equipment) that is interoperable with existing launcher configurations. b. Yellow smoke signature to simulate chemical, biological or nuclear effects that is interoperable with existing launcher configurations. c. Macro pyrotechnics to simulate hostile fire and small Improvised Explosive Devices (IED's) during mounted operations in urban terrain. d. Micro pyrotechnics to simulate indoor hostile fire and IED effects that are capable of being integrated into existing facilities. e. RPG on a wire to replicate the flight of a Rocket Propelled Grenade. The signature leaves a smoke trail that gives a launch point location, visible spark signature, smoke trail along with an audible launch and thrusting sound. f. High Order Blast Effect (HOBE) used to replicate a Vehicle Borne Improvised Explosive Device (VBIED), building explosions, and other significant explosive events. The signature is a large orange or red-colored fireball and smoke.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604802A / *Weapons and Munitions - Eng Dev*	**Project (Number/Name)** EC4 / *Non-Standard Simulator Munitions*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
g. Artillery airburst simulator to replicate indirect fire that is interoperable with existing launcher configurations: MS C 3rd Qtr FY15; IOC 4th Qtr FY16. h. Simulator to replicate a MANPAD firing that is interoperable with existing launcher configurations: MS C 3rd Qtr FY15; IOC 4th Qtr FY16. i. Victim operated trigger methods for firing pyrotechnic devices for mounted and dismounted troops i.e. pressure plate, trip wire, radio frequency (RF) and motion detectors. j. Tracer Fire-back simulator to replicate enemy small arms fire and anti-aircraft fire. Signature is red or green balls of fire.			
Accomplishments/Planned Programs Subtotals	-	-	0.885

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Strategy is under development and will be approved by the MDA once complete.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604802A / *Weapons and Munitions - Eng Dev*	Project (Number/Name) EC4 / *Non-Standard Simulator Munitions*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	MIPR	PM Close Combat Systems : PICATINNY ARSENAL	0.000	-		-		0.278	Dec 2014	-		0.278	-	0.278	-
		Subtotal	0.000	-		-		0.278		-		0.278	-	0.278	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	MIPR	ARDEC : PICATINNY ARSENAL	0.000	-		-		0.607	Jan 2015	-		0.607	-	0.607	-
		Subtotal	0.000	-		-		0.607		-		0.607	-	0.607	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		-		0.885		-		0.885	-	0.885	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604802A / *Weapons and Munitions - Eng Dev*	**Project (Number/Name)** EC4 / *Non-Standard Simulator Munitions*

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Material Development Decision												■																

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604802A / *Weapons and Munitions - Eng Dev*	**Project (Number/Name)** EC4 / *Non-Standard Simulator Munitions*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Material Development Decision	4	2015	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604802A / *Weapons and Munitions - Eng Dev*	Project (Number/Name) S36 / *Precision Guidance Kit*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
S36: *Precision Guidance Kit*	-	12.999	15.712	7.157	-	7.157	2.504	1.671	-	8.076	-	48.119
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This program funds engineering development of precision guidance systems applicable to Indirect Fire artillery weapon systems. The Precision Guidance Kit (PGK) is a Global Positioning System guidance kit with fuzing functions. PGK provides near precision accuracy and effectiveness for 155mm High Explosive artillery projectiles. PGK improves the accuracy of existing artillery ammunition by correcting the trajectory of projectiles to their designated target location. Precision guidance systems will effectively reduce target delivery error reducing the number of rounds required to conduct a fire mission.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Contractor Engineering and Manufacturing Development	9.019	9.615	0.500
Articles:	-	-	-
Description: Contractor Engineering and Manufacturing Development			
FY 2013 Accomplishments: Engineering and Manufacturing Development			
FY 2014 Plans: GPS Anti-Jam Development			
FY 2015 Plans: GPS Anti-Jam Development			
Title: Government and Engineering Support	3.255	3.390	3.013
Articles:	-	-	-
Description: Continue Engineering Support			
FY 2013 Accomplishments: Continue Engineering Support			
FY 2014 Plans: Continue Engineering Support			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continue Engineering Support			
Title: Continue Development/Operational Testing	0.725	2.707	3.644
Articles:	-	-	-
Description: Continue Development/Operational Test ***FY 2013 Accomplishments:*** Continue Development/Operational Test ***FY 2014 Plans:*** Continue Development for Anti-Jam ***FY 2015 Plans:*** Continue Development for Anti-Jam			
Accomplishments/Planned Programs Subtotals	12.999	15.712	7.157

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• E99250: *Procurement of Ammunition Army: Precision Guidance Kit (PGK)*	37.902	62.234	61.285	-	61.285	62.420	65.455	63.512	64.061	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Precision Guidance Kit (PGK) is a Global Positioning System (GPS) guidance kit with fuzing functions for 155mm High Explosive (HE) artillery projectiles. PGK provides near precision accuracy and effectiveness for 155mm HE projectiles. Using an integrated GPS receiver, the PGK corrects the inherent errors associated with ballistic firing solutions and reduces the number of artillery projectiles required to execute the mission. The current PGK Increment qualified the PGK for the M795 and M549A1 HE projectiles. The Acquisition Strategy/Acquisition Plan for the PGK program was approved by the Milestone Decision Authority on 20 October 2005, subsequently revised and approved on 14 December 2012. Alliant Techsystems (ATK) was competitively awarded the Engineering and Manufacturing Development (EMD) phase in May 2007 following a Technology Development Demonstration. Approval to initiate the procurement of Low Rate Initial Production (LRIP) occurred at Milestone C in March 2013. Initial Operational Test and Evaluation (IOT&E) is planned to be completed by 3Q FY 2015, a Full Material Release (FMR) decision is planned for 4Q FY 2015 and Initial Operational Capability (IOC) is scheduled for 1Q FY 2016. Future production will incorporate a GPS anti-jam capability.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604802A / *Weapons and Munitions - Eng Dev*	**Project (Number/Name)** S36 / *Precision Guidance Kit*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604802A / *Weapons and Munitions - Eng Dev*	Project (Number/Name) S36 / *Precision Guidance Kit*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Support	MIPR	Camber : Mt Arlington, NJ	1.788	0.061	Feb 2013	0.066	May 2014	-		-		-	-	1.915	1.909
Miscellaneous Support Contract	MIPR	MITRE Corporation : Fort Monmouth, NJ	0.600	-		-		-		-		-	-	0.600	0.600
PGK Parallel Studies and Analysis Support -	MIPR	Command and Control Directorate : Ft Monmouth, NJ	0.300	-		-		-		-		-	-	0.300	0.300
		Subtotal	2.688	0.061		0.066		-		-		-	-	2.815	2.809

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PGK TD Contract	C/CPAF	Alliant Techsystems (ATK) : Plymouth, MN	5.279	-		-		-		-		-	-	5.279	5.279
PGK TD Contract	C/CPAF	BAE : Minneapolis, MN	3.103	-		-		-		-		-	-	3.103	3.103
Soft Recovery Modules	MIPR	SubSystems Technology : Rosslyn, VA	0.116	-		-		-		-		-	-	0.116	0.116
M107 Metal Parts	MIPR	US ARMY Field Support Command : Rock Island, IL	0.079	-		-		-		-		-	-	0.079	0.079
PGK EMD & Phase 1-2 (Reliability Failure/Root Cause Analysis)	C/CPAF	Alliant Techsystems (ATK) : Plymouth, MN	53.947	-		-		-		-		-	-	53.947	53.947
PGK EMD - Phase 3a to 5	C/FFP	Alliant Techsystems (ATK) : Plymouth, MN	23.314	0.788	Jan 2013	1.015	May 2014	-		-		-	-	25.117	24.474
DOTC - PGK GPS Anti-Jam	C/CPFF	Alliant Techsystems (ATK) : Plymouth, MN	0.000	7.626	Aug 2013	8.600	Aug 2014	0.500	Apr 2015	-		0.500	Continuing	Continuing	21.123

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DOTC - GDOTS - Engineering & Technology Assessment. Low Cost Roll Control Solutions	C/CPFF	General Dynamics Ordnance & Tactical Systems : Bothell, WA	0.500	0.500	Jun 2013	-		-		-		-	-	1.000	0.500
DOTC - BAE Systems - Engineering & Technology Assessment. Low Cost Course Correction solutions.	C/CPFF	BAE/Rokar : Minneapolis, MN	0.500	-		-		-		-		-	-	0.500	0.500
High Angle Software Configuration	C/CPFF	Raytheon : Ft Wayne, IN	0.000	0.105	Jun 2013	-		-		-		-	-	0.105	-
		Subtotal	86.838	9.019		9.615		0.500		-		0.500	-	-	109.121

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM Office	PO	PM CAS : Picatinny, NJ	8.801	1.004	Nov 2012	0.958	Dec 2013	0.903	Dec 2014	-		0.903	Continuing	Continuing	11.494
Government Engineering Support	MIPR	ARDEC : Picatinny, NJ	24.311	2.190	Dec 2012	2.182	Jan 2014	1.840	Dec 2014	-		1.840	Continuing	Continuing	32.136
Jammer Support	MIPR	Electronic Proving Ground : Ft Huachuca, AZ	0.000	-		0.250	Aug 2014	0.250	Mar 2015	-		0.250	-	0.500	-
ATEC Support	MIPR	Army Test and Evaluation Command : Aberdeen, MD	0.000	-		-		0.020	Feb 2015	-		0.020	-	0.020	-
		Subtotal	33.112	3.194		3.390		3.013		-		3.013	-	-	43.630

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
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Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Component Air Gun/ Railgun Testing	MIPR	ARDEC : Picatinny, NJ	0.317	-		-		-		-		-	-	0.317	0.317
Other Development Testing	MIPR	Various : Various	1.725	-		-		-		-		-	-	1.725	1.725
System Development Testing Increment 1	MIPR	Yuma Proving Ground : Yuma, AZ	9.797	0.645	Dec 2012	-		-		-		-	-	10.442	10.487
Limited User Test	MIPR	Yuma Proving Ground : Yuma, AZ	0.000	0.080	Nov 2013	1.551	Nov 2013	-		-		-	-	1.631	-
Initial Operational Test & Evaluation - Increment 1	MIPR	Yuma Proving Ground : Yuma, AZ	0.000	-		-		3.000	Feb 2015	-		3.000	-	3.000	3.500
Development Testing for GPS Anti-Jam	MIPR	Yuma Proving Ground : Yuma, AZ	0.000	-		0.590	Aug 2014	0.644	Mar 2015	-		0.644	-	1.234	3.606
Cold Region Testing	MIPR	Cold Region Test Center : Yuma, AZ	0.000	-		0.300	Sep 2014	-		-		-	-	0.300	0.900
Airdrop Testing	MIPR	Yuma Proving Ground : Yuma, AZ	0.000	-		0.200	Sep 2014	-		-		-	-	0.200	0.200
		Subtotal	11.839	0.725		2.641		3.644		-		3.644	-	18.849	20.735

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	134.477	12.999		15.712		7.157		-		7.157	-	-	176.295

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604802A / *Weapons and Munitions - Eng Dev*	**Project (Number/Name)** S36 / *Precision Guidance Kit*

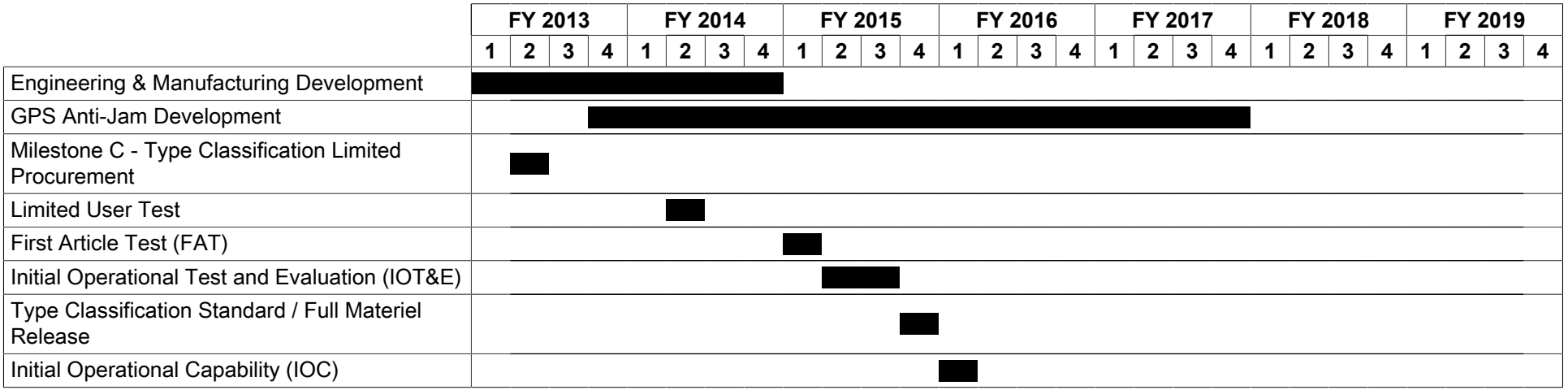

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
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Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Engineering & Manufacturing Development	4	2009	4	2014
GPS Anti-Jam Development	4	2013	4	2017
Milestone C - Type Classification Limited Procurement	2	2013	2	2013
Limited User Test	2	2014	2	2014
First Article Test (FAT)	1	2015	1	2015
Initial Operational Test and Evaluation (IOT&E)	2	2015	3	2015
Type Classification Standard / Full Materiel Release	4	2015	4	2015
Initial Operational Capability (IOC)	1	2016	1	2016