Department of Defense
Fiscal Year (FY) 2015 Budget Estimates

March 2014

Army

Justification Book

Research, Development, Test & Evaluation, Army

RDT&E − Volume III, Budget Activity 6

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 06: RDT&E Management Support
Appropriation 2040: Research, Development, Test & Evaluation, Army

Line Item	Budget Activity	Program Element Number	Program Element Title	Page
135	06	0604256A	THREAT SIMULATOR DEVELOPMENT	1
136	06	0604258A	TARGET SYSTEMS DEVELOPMENT	10
137	06	0604759A	Major T&E Investment	22
138	06	0605103A	Rand Arroyo Center	38
139	06	0605301A	ARMY KWAJALEIN ATOLL	43
140	06	0605326A	Concepts Experimentation Program	65
142	06	0605502A	SMALL BUSINESS INNOVATIVE RESEARCH	81
142	06	0605601A	ARMY TEST RANGES AND FACILITIES	84
143	06	0605602A	Army Technical Test Instrumentation and Targets	91
144	06	0605604A	Survivability/Lethality Analysis	99
145	06	0605606A	AIRCRAFT CERTIFICATION	106
146	06	0605702A	Meteorological Support to RDT&E Activities	113
147	06	0605706A	MATERIEL SYSTEMS ANALYSIS	118
148	06	0605709A	EXPLOITATION OF FOREIGN ITEMS	126
149	06	0605712A	Support of Operational Testing	129

Budget Activity 06: RDT&E Management Support
Appropriation 2040: Research, Development, Test & Evaluation, Army

Line Item	Budget Activity	Program Element Number	Program Element Title	Page
150	06	0605716A	Army Evaluation Center	134
151	06	0605718A	Army Modeling & Sim X-Cmd Collaboration & Integ	140
152	06	0605801A	Programwide Activities	146
153	06	0605803A	Technical Information Activities	170
154	06	0605805A	Munitions Standardization, Effectiveness and Safety	193
155	06	0605857A	Environmental Quality Technology Mgmt Support	229
156	06	0605898A	Management HQ - R&D	241

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

Program Element Title	Program Element Number	Line Item	Budget Activity	Page
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ARMY KWAJALEIN ATOLL	0605301A	139	06	43
ARMY TEST RANGES AND FACILITIES	0605601A	142	06	84
Army Evaluation Center	0605716A	150	06	134
Army Modeling & Sim X-Cmd Collaboration & Integ	0605718A	151	06	140
Army Technical Test Instrumentation and Targets	0605602A	143	06	91
Concepts Experimentation Program	0605326A	140	06	65
EXPLOITATION OF FOREIGN ITEMS	0605709A	148	06	126
Environmental Quality Technology Mgmt Support	0605857A	155	06	229
MATERIEL SYSTEMS ANALYSIS	0605706A	147	06	118
Major T&E Investment	0604759A	137	06	22
Management HQ - R&D	0605898A	156	06	241
Meteorological Support to RDT&E Activities	0605702A	146	06	113
Munitions Standardization, Effectiveness and Safety	0605805A	154	06	193
Programwide Activities	0605801A	152	06	146
Rand Arroyo Center	0605103A	138	06	38
SMALL BUSINESS INNOVATIVE RESEARCH	0605502A	142	06	81

Program Element Title	Program Element Number	Line Item	Budget Activity	Page
Support of Operational Testing	0605712A	149	06	129
Survivability/Lethality Analysis	0605604A	144	06	99
TARGET SYSTEMS DEVELOPMENT	0604258A	136	06	10
THREAT SIMULATOR DEVELOPMENT	0604256A	135	06	1
Technical Information Activities	0605803A	153	06	170

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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 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0604256A *I THREAT SIMULATOR 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	-	16.409	23.921	18.062	-	18.062	18.780	22.599	20.403	21.352	-	-
976: *Army Threat Sim (ATS)*	-	16.409	23.921	18.062	-	18.062	18.780	22.599	20.403	21.352	-	-

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

Note

FY13 adjustments attributed to Congressional General Reductions (-37 thousand); SBIR/STTR transfers (-244 thousand); and Sequestration reductions (-1.4 million).

A. Mission Description and Budget Item Justification

This program supports the design, development, acquisition, integration and fielding of realistic mobile threat simulators and realistic threat simulation products utilized in Army training and developmental and operational tests. Project originally funded simulators representing Soviet equipment, but scope was expanded to address emerging world threats. Army Threat Simulator and Threat Simulation products are utilized to populate test battlefields for U.S. Army Test and Evaluation Command (ATEC), to conduct developmental and operational tests, and to support Program Executive Office (PEO) required user testing in System Integration Laboratories and hardware/simulation in-the-loop facilities. Army threat simulator and threat simulation products developed or fielded under this program support Army-wide, non-system specific threat product requirements. Each capability is pursued in concert and coordination with existing Army and tri-service capabilities to eliminate duplication of products and services, while providing the proper mix of resources needed to support Army testing and training. These battlefield simulators represent systems (e.g. missile systems, command, control and communications systems, electronic warfare systems, etc.) that are used to portray a realistic threat environment during testing of U.S. weapon systems. Simulator development is responsive to Office of the Secretary of Defense and General Accounting Office guidance for the Army to conduct operational testing in a realistic threat environment. Actual threat equipment is acquired when appropriate (in lieu of development) and total package fielding is still required (i.e., instrumentation, operations and maintenance, manuals, new equipment training, etc.). Threat simulator development is accomplished under the auspices of the Project Manager for Instrumentation, Targets and Threat Simulators (PM ITTS) and the Director, Operational Test and Evaluation, Threat Simulator Investment Working Group.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*		R-1 Program Element (Number/Name) PE 0604256A / *THREAT SIMULATOR DEVELOPMENT*			
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	18.090	16.934	19.180	-	19.180
Current President's Budget	16.409	23.921	18.062	-	18.062
Total Adjustments	-1.681	6.987	-1.118	-	-1.118
• Congressional General Reductions	-0.037	-0.013			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	7.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.244	-			
• Adjustments to Budget Years	-	-	-1.118	-	-1.118
• Other Adjustments	-1.400	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0604256A / *THREAT SIMULATOR DEVELOPMENT*	Project (Number/Name) 976 / *Army Threat Sim (ATS)*	

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
976: *Army Threat Sim (ATS)*	-	16.409	23.921	18.062	-	18.062	18.780	22.599	20.403	21.352	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

Threat Computer Network Operations (CNO) Fidelity Enhancements is a new start in FY15.

A. Mission Description and Budget Item Justification

This program supports the design, development, acquisition, integration, and fielding of realistic mobile threat simulators and realistic threat simulation products used in Army training, developmental tests, and operational tests. Project originally funded simulators representing Soviet equipment, but scope was expanded to address emerging world threats. Army Threat Simulator and Threat Simulation products are used to populate test battlefields for U.S. Army Test and Evaluation Command (ATEC), to conduct developmental and operational tests, and to support Program Executive Office (PEO) required user testing in System Integration Laboratories and hardware/simulation in-the-loop facilities. Army threat simulator and threat simulation products developed or fielded under this program support Army-wide, non-system specific threat product requirements. Each capability is pursued in concert and coordination with existing Army and tri-service capabilities to eliminate duplication of products and services, while providing the proper mix of resources needed to support Army testing and training. These battlefield simulators represent systems (e.g. missile systems, command, control and communications systems, electronic warfare systems, etc.) that are used to portray a realistic threat environment during testing of U.S. weapon systems. Simulator development is responsive to Office of the Secretary of Defense and Government Accountability Office guidance for the Army to conduct operational testing in a realistic threat environment. Actual threat equipment is acquired when appropriate (in lieu of development) and total package fielding is still required (i.e., instrumentation, operations and maintenance, manuals, new equipment training, etc.). Threat simulator development is accomplished under the auspices of the Project Manager for Instrumentation, Targets and Threat Simulators (PM ITTS) and the Director, Operational Test and Evaluation, Threat Simulator Investment Working Group.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Network Exploitation Test Tool (NETT).	3.461	10.580	3.781
Articles:	-	-	-
Description: Continues Engineering Manufacturing and Development (EMD) for the NETT as a comprehensive Computer Network Operations (CNO) tool.			
FY 2013 Accomplishments: NETT is a comprehensive Computer Network Operations (CNO) tool, designed for T&E, to portray evolving hostile and malicious Threat effects within the cyber domain. The program provided an integrated suite of open-source/open-method exploitation tools which are integrated with robust reporting and instrumentation capabilities. NETT is used by Threat CNO teams to replicate the			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604256A / *THREAT SIMULATOR DEVELOPMENT*	**Project (Number/Name)** 976 / *Army Threat Sim (ATS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
tactics of state and non-state Threat and is supported by a robust CNO development environment. Current hacking tools and capabilities are introduced daily to hacking community. The NETT program researched these new capabilities and utilized an in-depth process to clean, fix, and integrate required Threat tools, tactics, and techniques that are needed during T&E. FY13 funding supported the continuation of exploit development, continues support to the NETT Users Group, and maintained pace with advanced exploit research and tool integration required to support the growing demand for the Threat CNO Team and mission. ***FY 2014 Plans:*** Continues EMD for the Network Exploitation Test Tool (NETT). NETT is a comprehensive Computer Network Operations (CNO) tool, designed for T&E, to portray evolving hostile and malicious Threat effects within the cyber domain. The program provides an integrated suite of open-source/open-method exploitation tools which will be integrated with robust reporting and instrumentation capabilities. NETT is used by Threat CNO teams to replicate the tactics of state and non-state Threat and is supported by a robust CNO development environment. The Cyber domain is the most rapidly changing domain in which our systems operate. The NETT program researches these new capabilities and uses an in-depth process to clean, fix, and integrate required Threat tools, tactics, and techniques that will be needed during T&E. Focus areas include continued Threat integration, instrumentation, distributed collaboration, and remote agent development. ***FY 2015 Plans:*** Will continue EMD for the Network Exploitation Test Tool (NETT). NETT will be a comprehensive Computer Network Operations (CNO) tool, designed for T&E, to portray evolving hostile and malicious Threat effects within the cyber domain. The program will provide an integrated suite of open-source/open-method exploitation tools which will be integrated with robust reporting and instrumentation capabilities. NETT will be used by Threat CNO teams to replicate the tactics of state and non-state Threat and will be supported by a robust CNO development environment. The Cyber domain will be the most rapidly changing domain in which our systems operate. The NETT program will research these new capabilities and will use an in-depth process to clean, fix, and integrate required Threat tools, tactics, and techniques that will be needed during T&E. Focus areas will include continued Threat integration, instrumentation, distributed collaboration, and remote agent development.			
Title: TSMO Threat Operations	2.704	2.868	2.838
Articles:	-	-	-
Description: Threat Systems Management Office's (TSMO) Threat Operations program manages, maintains, and sustains a mission ready suite of threat systems within the Army's Threat inventory. ***FY 2013 Accomplishments:*** Government Program Management for the TSMO Operations funded the operation, maintenance, management, and sustainment capability for Threat systems used to portray a realistic threat environment during Army testing and training within the Army's Threat inventory. Included acquisition life cycle management support (operation, maintenance, spares, new equipment training,			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604256A / *THREAT SIMULATOR DEVELOPMENT*	**Project (Number/Name)** 976 / *Army Threat Sim (ATS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
special tools and instrumentation, safety, environmental, security, information assurance, etc) of new threat systems fielded into the Army's Threat inventory. Funding supported the scheduled Life Cycle of equipment within the Threat inventory. ***FY 2014 Plans:*** Continuing the Threat Operations program funds the operation, maintenance, management, and sustainment capability for Threat systems used to portray a realistic threat environment during Army testing and training within the Army's Threat inventory in order to support multiple Army test events including (Network Integration Evaluation - NIE/Capabilities Integration Evaluation - CIE) and anticipated excursion test events for numerous Systems Under Test (SUT)/Programs of Record (POR) currently identified through FY16. FY14 funding provides for acquisition life cycle management support and operation, maintenance, spares, new equipment training, special tools and instrumentation, additional DIACAP updates, etc, of new threat systems fielded into the Army's Threat inventory. ***FY 2015 Plans:*** Continuing the Threat Operations program will fund the operation, maintenance, management, and sustainment capability for Threat systems used to portray a realistic threat environment during Army testing and training within the Army's Threat inventory in order to support multiple Army test events including (Network Integration Evaluation - NIE/Capabilities Integration Evaluation - CIE) and anticipated excursion test events for numerous Systems Under Test (SUT)/Programs of Record (POR) currently identified through FY16. FY15 funding will provide for acquisition life cycle management support and operation, maintenance, spares, new equipment training, special tools and instrumentation, additional DIACAP updates, etc, of new threat systems fielded into the Army's Threat inventory.			
Title: Threat Intelligence and Electronic Warfare Environment (TIEW ENV).	2.286	3.813	3.736
Articles:	-	-	-
Description: Continues EMD for the Threat Intelligence and Electronic Warfare Environment (TIEW ENV) to simulate Electronic Warfare capabilities. ***FY 2013 Accomplishments:*** Continued EMD for the TIEW ENV: The TIEW ENV supports the establishment of a wrap-around threat environment required to evaluate, demonstrate, and employ the EW capabilities of Enemy Forces in simulated real-world test/training events. The TIEW ENV provides the capability to import vignettes, establishes virtual entities, connects live assets, and interacts between the live, virtual, and constructive environments. The TIEW ENV fully integrates with ITF to enable Opposing Forces (OPFOR) command of threat EW assets across Live, Virtual, and Constructive (LVC) domains. FY13 satisfied Army requirements by funding development, platform integration and sustainment of this capability. Program fields incremental capabilities in support of upcoming spin out events. ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604256A / *THREAT SIMULATOR DEVELOPMENT*	**Project (Number/Name)** 976 / *Army Threat Sim (ATS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continues EMD for the TIEW ENV: The TIEW ENV supports the establishment of a wrap-around threat environment required to evaluate, demonstrate, and employ the Electronic Warfare (EW) capabilities of Enemy Forces in simulated real-world test/training events. The TIEW ENV provides the capability to import vignettes, will establish virtual entities, connect live assets, and interact between the live, virtual, and constructive environments. The TIEW ENV fully integrates with the ITF to enable Opposing Forces (OPFOR) command of threat EW assets across Live, Virtual, and Constructive (LVC) domains. FY14 satisfies Army requirements by funding development, platform integration and sustainment of this capability. Program fields incremental capabilities in support of upcoming spin out events. Additional capabilities include the initial development of Threat Directed Energy Weapons (TDEW) model (which include threat Radio Frequency (RF) weapon simulators and instrumentation that employs next generation RF weapon capabilities against US Army systems that rely on survivable and robust sensors for C4ISR, continuous situational awareness, alert warning information and targeting) and continued integration with the ITF for robust LVC domain capability. The TIEW ENV also begins the integration, via the ITF, with the live Directed Energy Weapon assets and the Threat Unmanned Device. Integration with the Network Exploitation Test Tool (NETT) also begins in the latter part of FY14. ***FY 2015 Plans:*** Will continue EMD for the TIEW ENV: The TIEW ENV will support the establishment of a wrap-around threat environment required to evaluate, demonstrate, and employ the Electronic Warfare (EW) capabilities of Enemy Forces in simulated real-world test/training events. The TIEW ENV will provide the capability to import vignettes, establish virtual entities, connect live assets, and interact between the live, virtual, and constructive environments. The TIEW ENV will fully integrate with the Intergrated Threat Force (ITF) to enable Opposing Forces (OPFOR) command of threat EW assets across Live, Virtual, and Constructive (LVC) domains. FY15 will satisfy Army requirements by funding development, platform integration and sustainment of this capability. Program will field incremental capabilities in support of upcoming spin out events. Will continue development of Threat Directed Energy Weapons (TDEW) models as well as Intelligence, Surveillance, and Reconnaissance (ISR) & Camouflage, Concealment, Deception and Obscurants (CCD&O) models. In addition, the TIEW ENV will continue integration, via ITF, with the live Directed Energy Weapon assets, the Threat Unmanned Device and the Network Exploitation Test Tool (NETT).			
Title: Integrated Threat Force (ITF), formerly named Threat Battle Command Center (TBCC)	4.510	3.916	3.481
Articles:	-	-	-
Description: Continues the EMD phase for the ITF program to continue hardware/software development and threat systems integration in support to the build-out of the threat force architecture. ***FY 2013 Accomplishments:*** Continued EMD for the ITF which provides an integrated, scalable Threat Command and Control for all Army Threat representations. This program leveraged prior Central Test & Evaluation Investment Program (CEIP) investments to create a highly adaptable and unique threat force capability to meet T&E requirements for the evaluation of network-centric platform and SoS capabilities by closely simulating expected real-world threat environments. FY13 funding was used for the continued			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604256A / *THREAT SIMULATOR DEVELOPMENT*	**Project (Number/Name)** 976 / *Army Threat Sim (ATS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
hardware/software development/build-out supporting the threat force architecture, visualization, Command and Control (C2), and fusion needs required to successfully meet salability and reconfigurability needs for current T&E requirements. ***FY 2014 Plans:*** Completes the EMD phase for Increment 3 of the ITF program to enhance the ITF's Threat Battle Command applications, the C3 interfaces with the Increment 1 and 2 threat systems as well as complete the integration of the Camouflage, Concealment, Deception, and Obscurants (CCD&O) assets. FY14 also delivers the final instrumentation capability for the ITF as well as completes the integration of the C2 functionality into the TBCC. FY14 funding is used to fulfill the Key Performance Parameters (KPPs) for Increment 3 while ensuring that the ITF program will continue to meet the C3 and data fusion needs required to successfully meet scalability and reconfigurability needs for current Test & Evaluation (T&E) requirements. ***FY 2015 Plans:*** Will initiate the EMD phase for Increment 4 of the ITF program to enhance the ITF's Threat Battle Command applications, the C3 interfaces with the Increment 1 - 3 threat systems as well as enhance the C2 functionality of the Threat Battle Command Center (TBCC). FY15 will support the initial design and development of distributed C2 functionality from the TBCC. will be used to fulfill the Key Performance Parameters (KPPs) for Increment 4 while ensuring that the ITF program will continue to meet the C3 and data fusion needs required to successfully meet scalability and reconfigureability needs for current T&E requirements.			
Title: Threat Computer Network Operations Teams (TCNOT)	3.448	2.744	2.946
Articles:	-	-	-
Description: The TCNOT supports Army Test and Evaluation events by maintaining a team of highly qualified, trained, and certified Computer Network Operations (CNO) professionals who execute cyber operations against systems under test. The TCNOT program was designated a "Threat CNO Team" under AR 380-53 recognized as a USSTRATCOM/NSA certified "Red Team". ***FY 2013 Accomplishments:*** Continued the Threat CNO Team program in establishing and maintaining a team of highly trained and certified CNO professionals qualified for the employment of Threat CNO in support of Army T&E. The Threat CNO Team mission is to accurately replicate the capabilities and hacker intent of state and non-state Threats through identification of Army system vulnerabilities that could be exploited by Threat forces, replicating loss of service, or exploiting network enabled systems to gain critical information or create a desired effect. The funding supported unique training, credentials, and authorizations involving organizations such as Army 1st IO Command, NSA, HQDA-G2, and industry. The FY13 funded requirements to include continued research of the intelligence-based TCNO Techniques, Tactics and Procedures (TTP) and threat portrayal capabilities up to the Nation State level; development of the necessary, highly specialized TCNO Training program; development, research, and analysis of continually emerging foreign threat capabilities; and data collection capability. The program established analytical services needed to identify			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604256A / *THREAT SIMULATOR DEVELOPMENT*	**Project (Number/Name)** 976 / *Army Threat Sim (ATS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
and correlate data of historical and real time malicious activity within the Army Land Warrior Network (LWN) and external to the DoD. This program also established services and near real-time processing of information needed to develop threat targeting packages that accurately profile the cyber enemy, types of systems they attack, frequency of attacks, their intent, doctrine, training, techniques, tools and operational tactics. The program resulted in creation of teams of Threat CNO professionals, working in concert with the Intelligence Community, capable of accurately portraying validated real world CNO threat to meet operational test requirements. ***FY 2014 Plans:*** Continues the Threat CNO Team program in establishing and maintaining a team of highly trained and certified CNO professionals qualified for the employment of Threat CNO in support of Army T&E. The Threat CNO Team mission is to accurately replicate the capabilities and hacker intent of state and non-state threats through identification of Army system vulnerabilities that could be exploited by threat forces, replicating loss of service, or exploiting network enabled systems to gain critical information or create a desired effect. The funding supports unique training, credentials, and authorizations involving organizations such as Army 1st IO Command, NSA, HQDA-G2, and industry. Funds requirements to include continued research of the intelligence-based TCNO Techniques, Tactics and Procedures (TTP) and threat portrayal capabilities up to the Nation State level; development of the necessary, highly specialized TCNO Training program; development, research, and analysis of continually emerging foreign threat capabilities; and data collection capability. ***FY 2015 Plans:*** Will continue the Threat CNO Team program in establishing and maintaining a team of highly trained and certified CNO professionals qualified for the employment of Threat CNO in support of Army T&E. The Threat CNO Team mission will be to accurately replicate the capabilities and hacker intent of state and non-state threats through identification of Army system vulnerabilities that could be exploited by threat forces, replicating loss of service, or exploiting network enabled systems to gain critical information or create a desired effect. The funding will support unique training, credentials, and authorizations involving organizations such as Army 1st IO Command, NSA, HQDA-G2, and industry. The FY15 will fund requirements to include continued research of the intelligence-based TCNO Techniques, Tactics and Procedures (TTP) and threat portrayal capabilities up to the Nation State level; development of the necessary, highly specialized TCNO Training program; development, research, and analysis of continually emerging foreign threat capabilities; and data collection capability.			
Title: Threat Computer Network Operations (CNO) Fidelity Enhancements	-	-	1.280
Description: Threat CNO Fidelity Enhancements is a new start project that will establish high-fidelity Threat malware and real-world tools, tactics, techniques, and procedures of Threat employment of CNO using commercial IT Technologies intended to engage complex U.S. operations. ***FY 2015 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604256A / *THREAT SIMULATOR DEVELOPMENT*	**Project (Number/Name)** 976 / *Army Threat Sim (ATS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Program will establish validated high-fidelity Threat malware and real-world tools, tactics, techniques, and procedures of Threat employment of CNO using commercial IT technologies intended to engage complex U.S. operations. This program will develop state and non-state threat targeting packages that are "current", accurately profiling attack trends and timelines, intent, levels of sophistication, and threat training that will not be available to evaluate the exploitation of existing vulnerabilities in Enterprise Business Systems and network enabled systems. These threat packages range from "technological nomads" operating autonomously to state level forces using both active and passive network attack to selectively degrade or disrupt Army C4ISR and Enterprise Business Systems.			
Accomplishments/Planned Programs Subtotals	16.409	23.921	18.062

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

THREAT SIMULATOR Test Programs Supported: Aircraft (MH-47E) Follow On Operational Test II, MH-60K Aircraft, Aircraft (MH-60K) Follow On Operational Test II, RAH-66 Comanche EUTE, RAH-66 Comanche FDTE I, Suite of Integrated Radio Countermeasures (SIRFCM), Suite of Integrated Radio Countermeasures (SIIRCM), Unmanned Aerial Vehicle (UAV) - Payload, Force XXI Battle Command Brigade and Below, Army Airborne Command and Control, Army TACMS Block II/BAT, Bradley Fighting Vehicle-A3, Crusader FDTE, Extended Range MLRS, FAAD Block III, GPS in Joint Battle Space Environment, Guardrail/Common Sensor System II, Handheld Standoff Mine Field Detection System, IEW Tactical Proficiency Trainer, Joint Close Air Support HT&E, Joint Suppression of Enemy Air Defense (JSEAD), Land Warrior, Long Range Advanced Scout Surveillance System, Navigational Warfare Global Positioning System, OH-58D Kiowa Warrior, Patriot Advanced Capabilities PAC-3 Config-3, UH-60Q, Theater High Altitude Area Defense System.

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0604258A / *TARGET 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	-	12.583	13.481	10.040	-	10.040	9.717	16.119	9.899	10.216	-	-
238: *Aerial Targets*	-	8.982	10.026	7.397	-	7.397	7.189	8.501	5.914	6.048	-	-
459: *Ground Targets*	-	3.601	3.455	2.643	-	2.643	2.528	7.618	3.985	4.168	-	-

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

Note

FY13 adjustments attributed to Congressional General Reductions (-23 thousand); SBIR/STTR transfers (-300 thousand); and Sequestration reductions (-1.128 million). FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

This program funds aerial and ground target hardware and software development, maintenance, and upgrades. The overall objective is to ensure validation of weapon system accuracy and reliability by developing aerial and ground targets essential for test and evaluation (T&E). These targets are economical and expendable, remotely controlled or stationary, and often destroyed in use. The Army is the Tri-Service lead under Reliance for providing rotary wing, mobile ground, towed, and designated targets for T&E. The Army executes development of some Service-peculiar target requirements in support of quality assurance, lot acceptance, and training and continues development of Service-peculiar and on-going target materiel upgrades to maintain continuity with current weapons technology and trends in modern and evolving Army weapons.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	14.034	13.488	12.055	-	12.055
Current President's Budget	12.583	13.481	10.040	-	10.040
Total Adjustments	-1.451	-0.007	-2.015	-	-2.015
• Congressional General Reductions	-0.023	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.300	-			
• Adjustments to Budget Years	-	-0.007	-2.015	-	-2.015
• Other Adjustments	-1.128	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0604258A / *TARGET SYSTEMS DEVELOPMENT*	Project (Number/Name) 238 / *Aerial Targets*	

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
238: *Aerial Targets*	-	8.982	10.026	7.397	-	7.397	7.189	8.501	5.914	6.048	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

Rotary Wing Targets completed in FY13.

A. Mission Description and Budget Item Justification

Aerial Targets support Army Transformation by providing for development, acquisition, operation, storage, update, and maintenance of realistic surrogate or acquired threat high-performance, multi-spectral aerial targets and development of virtual target computer models of aerial targets. Modern weapons require test, evaluation, and training using threat representative aerial targets to assess their effectiveness on the battlefield. This program encompasses a family of rotary and fixed-wing targets; full-scale, miniature, and subscale targets; virtual targets; ancillary devices; and their control systems. These products are required to adequately stress weapon systems undergoing test and evaluation (T&E). In order to stress systems during T&E, aerial targets must have flight characteristics, signatures, and other performance factors that emulate the modern threat. This program includes long-range planning to determine future target needs and development of coordinated requirement documents; the management of target research, development, test and evaluation process; execution of the validation process to ensure that surrogate targets adequately represent the threat; development and acquisition of surrogate and acquired targets; and continuing maintenance, storage, and development/ enhancement/update via engineering services of the developed and acquired threat targets to ensure availability for the T&E customer. The Army is the Reliance lead for Rotary Wing Targets and towed target developments and the Tri-Service lead for procurement and enhancement of the MQM-107 fixed wing target.

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 Rotary Wing Targets.	0.468	-	-
Articles:	-	-	-
Description: Sustainment phase contract activities for the Rotary Wing Targets, including updates for obsolescence, maintenance, and safety to support Test & Evaluation (T&E) programs.			
FY 2013 Accomplishments: Completed the EMD for the Rotary Wing Targets program to provide flight operations of DoD's current fleet of helicopters. Rotary Wing Targets also provided updates for obsolescence, maintenance, and safety to support T&E programs such as Navy Standard Missile (SM-6), Navy LHA air defense upgrades, and Army and Navy Aircraft Survivability development projects.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the High Speed Aerial Target.	1.232	1.386	1.054
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604258A / *TARGET SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 238 / *Aerial Targets*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Continue EMD phase contract activities for the High Speed Aerial Target (HSAT, MQM-107) equipment. ***FY 2013 Accomplishments:*** Continued EMD for the aging High Speed Aerial Target (HSAT, MQM-107) that provides a realistic aerial target capable of simulating the performance of enemy aircraft to aid in the reseach, development, test, and evaluation of weapons systems and to aid in training operational units employing producton missile systems. Funds were required to overcome obsolescence for spare and repair parts, and to maintain equipment and documenation for safe operations supporting T&E programs such as Patriot, Stinger, and classified programs for Army and Tri-Service customers. ***FY 2014 Plans:*** Continues EMD for the aging High Speed Aerial Target (HSAT, MQM-107) that will provide a realistic aerial target capable of simulating the performance of enemy aircraft to aid in the reseach, development, test, and evaluation of weapons systems and to aid in training operational units employing producton missile systems. Funds are required to overcome obsolescence for spare and repair parts, and to maintain equipment and documenation for safe operations supporting T&E programs such as Patriot, Stinger, JLENS, MEADS, and classified programs for Army and Tri-Service customers. ***FY 2015 Plans:*** Will continue EMD for the aging High Speed Aerial Target (HSAT, MQM-107) that will provide a realistic aerial target capable of simulating the performance of enemy aircraft to aid in the reseach, development, test, and evaluation of weapons systems and to aid in training operational units employing producton missile systems. Funds will be required to overcome obsolescence for spare and repair parts, and to maintain equipment and documenation for safe operations. Supports all Army systems needing to test ISR, kinetic, EW, IR or ISR capabilities againts an aerial target with high speed, high altitude flight envelope.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Target Tracking Control Systems (TTCS) and aerial target control components. ***Articles:*** ***Description:*** Continue EMD phase contract activities for the TTCS and aerial target control components. ***FY 2013 Accomplishments:*** Continued EMD for the TTCS and aerial target control components. Provides for design modifications to solve obsolescence problems and updates software to correct anomalies. Provides for software performance enhancement modifications to support T&E missions, improves test sets and developes upgraded operator displays. Updates documentation of the system and	0.620 -	0.649 -	0.602 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604258A / *TARGET SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 238 / *Aerial Targets*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
operations and maintenance manuals. Supported operational repair and maintenance with engineering analysis of target control system performance. Provides support to programs such as Patriot, MEADS, and others. ***FY 2014 Plans:*** Continues EMD for the TTCS and aerial target control components. Will provide for design modifications to solve obsolescence problems and updates software to correct anomalies. Will provide for software performance enhancement modifications to support T&E missions, improve test sets and develop upgraded operator displays. Will update documentation of the system and operations and maintenance manuals. Will support operational repair and maintenance with engineering analysis of target control system performance. This will provide support to programs such as Patriot, MEADS, and others. ***FY 2015 Plans:*** Will continue EMD for the TTCS and aerial target control components. Will provide for design modifications to solve obsolescence problems and updates software to correct anomalies. Will provide for software performance enhancement modifications to support T&E missions, improve test sets and develop upgraded operator displays. Will update documentation of the system and operations and maintenance manuals. Will support operational repair and maintenance with engineering analysis of target control system performance.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Towed Targets/Ancillary devices.	0.696	1.114	0.915
Articles:	-	-	-
Description: Continue EMD phase contract activities for the Towed Targets/Ancillary devices. ***FY 2013 Accomplishments:*** Continued EMD for the Towed Targets/Ancillary devices. Continued development, enhancement, maintenance, and storage for all RDT&E aerial targets, towed targets, and ancillary devices. Continued development and testing of Low Cost Towed target systems (Cruise Missile Tow Target, Reduced Radar Tow Target, and the Special Low Altitude Tow Target) emulating current threats at a very low cost to Patriot, JLENS and classified customers. Signature modification and performance enhancement efforts for these targets is ongoing. Investigated/tested other cost-saving towed systems (Glide-Tow, Towed Spheres, Height-Keeping-Tow, and Tow Test Bed) for Air Defense Weapons System customers. ***FY 2014 Plans:*** Continues EMD for the Towed Targets/Ancillary devices. Continues development, enhancement, maintenance, and storage for all RDT&E aerial targets, towed targets, and ancillary devices. Continues development and testing of Low Cost Towed target systems (Cruise Missile Tow Target, Reduced Radar Tow Target, and the Special Low Altitude Tow Target) emulating current threats at a very low cost to Patriot, JLENS and classified customers. Signature modification and performance enhancement			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604258A / *TARGET SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 238 / *Aerial Targets*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
efforts for these targets is ongoing. Investigates/tests other cost-saving towed systems (Glide-Tow, Towed Spheres, Height-Keeping-Tow, and Tow Test Bed) for Air Defense Weapons System customers. ***FY 2015 Plans:*** Will continue EMD for the Towed Targets/Ancillary devices. Will continue development, enhancement, maintenance, and storage for all RDT&E aerial targets, towed targets, and ancillary devices. Will continue development and testing of Low Cost Towed target systems (Cruise Missile Tow Target, Reduced Radar Tow Target, and the Special Low Altitude Tow Target) emulating current threats at a very low cost to Patriot, JLENS and classified customers. Signature modification and performance enhancement efforts for these targets is ongoing. Investigates/tests other cost-saving towed systems (Glide-Tow, Towed Spheres, Height-Keeping-Tow, and Tow Test Bed) for Air Defense Weapons System customers.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Integrated Avionics Package (IAP). ***Articles:*** ***Description:*** Continue EMD phase contract activities for the IAP. ***FY 2013 Accomplishments:*** Continued EMD for the IAP which provides the avionics for aerial targets to support multiple mission requirements for programs such as Patriot, and MEADS. Designed component changes to correct for obsolescence. Updated software to correct issues and to modify the software to support specific test and evaluation mission requirements. ***FY 2014 Plans:*** Complete the EMD for the IAP which provides the avionics for aerial targets to support multiple mission requirements for programs such as Patriot, and MEADS.	0.258 -	0.271 -	- -
Title: Engineering and Manufacturing Development (EMD) phase contract activity for Aerial Virtual Targets. ***Articles:*** ***Description:*** Continue EMD phase contract activities for Aerial Virtual Targets. ***FY 2013 Accomplishments:*** Continued EMD for Aerial Virtual Targets for evolving Army and DoD simulation standards and evolving implementation techniques; focuses on simulation target models of airplanes, helicopters, missiles, unmanned aerial vehicles, and aerial targets in commonly used formats to support visualization, infrared analysis, and radar analysis simulations; supports verification and validation of models, and provides archiving and distribution of simulation target models to simulation developers throughout the Army and DoD T&E communities. Simulation target models are employed to facilitate simulations for developmental testing (DT) and operational testing (OT) test planning, test rehearsal, post-test analysis, hardware-in-the-loop testing, and execution of test events that are too costly or difficult to be conducted under actual field conditions. These models are being used by multiple DoD	0.871 -	1.098 -	0.753 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604258A / *TARGET SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 238 / *Aerial Targets*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
agencies and multiple weapon systems such as Close Combat Weapon System (CCWS), Unmanned Aerial System, Lower Tier Program offices, and Longbow Hellfire. ***FY 2014 Plans:*** Continue EMD for Aerial Virtual Targets for evolving Army and DoD simulation standards and evolving implementation techniques; focuses on simulation target models of airplanes, helicopters, missiles, unmanned aerial vehicles, and aerial targets in commonly used formats to support visualization, infrared analysis, and radar analysis simulations; supports verification and validation of models, and provides archiving and distribution of simulation target models to simulation developers throughout the Army and DoD T&E communities. Simulation target models are employed to facilitate simulations for developmental testing (DT) and operational testing (OT) test planning, test rehearsal, post-test analysis, hardware-in-the-loop testing, and execution of test events that are too costly or difficult to be conducted under actual field conditions. These models are being used by multiple DoD agencies and multiple weapon systems such as Close Combat Weapon System (CCWS), Unmanned Aerial System, Lower Tier Program offices, and Longbow Hellfire. ***FY 2015 Plans:*** Will continue EMD for Aerial Virtual Targets for evolving Army and DoD simulation standards and evolving implementation techniques; will focus on simulation target models of airplanes, helicopters, missiles, unmanned aerial vehicles, and aerial targets in commonly used formats to support visualization, infrared analysis, and radar analysis simulations; will support verification and validation of models, and provides archiving and distribution of simulation target models to simulation developers throughout the Army and DoD T&E communities. Simulation target models are employed to facilitate simulations for developmental testing (DT) and operational testing (OT) test planning, test rehearsal, post-test analysis, hardware-in-the-loop testing, and execution of test events that are too costly or difficult to be conducted under actual field conditions. These models are being used by multiple DoD agencies and multiple weapon systems such as Close Combat Weapon System (CCWS), Unmanned Aerial System, Lower Tier Program offices, and Longbow Hellfire.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Army Ground Aerial Target Control System (AGATCS). ***Articles:*** ***Description:*** EMD phase contract activities for the Army Ground Aerial Target Control System (AGATCS). which will support a modern current technology target control system for control of both aerial and ground targets. ***FY 2013 Accomplishments:*** Continued EMD for the AGATCS which provides a modern current technology target control system for control of aerial, ground, and seaborne targets. The system incorporates software for control of existing targets and provisions for control of future target systems. Replaces the existing aerial target control TTCS and several different ground target control systems that becomes	4.264 -	4.928 -	3.621 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604258A / *TARGET SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 238 / *Aerial Targets*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
obsolete and non-supportable with a DIACAP compliant control system. Provides control system components within the aerial and ground targets to be controlled by the AGATCS. Provides support to programs such as Patriot, MEADS, E-IBCT, Apache, and others. ***FY 2014 Plans:*** Continues EMD for the AGATCS which provides a modern current technology target control system for control of aerial, ground, and seaborne targets. The system incorporates software for control of existing targets and provisions for control of future target systems. Replaces the existing aerial target control TTCS and several different ground target control systems that becomes obsolete and non-supportable with a DIACAP compliant control system. Provides control system components within the aerial and ground targets to be controlled by the AGATCS. Provides support to programs such as Patriot, MEADS, E-IBCT, Apache, and others. ***FY 2015 Plans:*** Will continue EMD for the AGATCS which provides a modern current technology target control system for control of aerial, ground, and seaborne targets. The system incorporates software for control of existing targets and provisions for control of future target systems. Replaces the existing aerial target control TTCS and several different ground target control systems that becomes obsolete and non-supportable with a DIACAP compliant control system. Provides control system components within the aerial and ground targets to be controlled by the AGATCS. Provides support to programs such as Patriot, MEADS, E-IBCT, Apache, and others.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Unmanned Aerial System - Target (UAS-T). ***Articles:*** ***Description:*** Continue EMD phase contract activities for the UAS-T to provide threat representative support for test and experimentation missions. ***FY 2013 Accomplishments:*** Continued EMD for the UAS-T to operate and maintain a generic, tactical class, unmanned aircraft system target to support a wide variety of test requirements as well as to provide threat representative support for test and experimentation missions. Funds enabled the identification and correction of system anomalies identified during flight operations. Funds provided forth demonstration flights of production air vehicles to verify performance of the production equipment. Provided limited engineering capability to address minor enhancements to the basic target system identified during operations. ***FY 2014 Plans:*** Continues EMD for the UAS-T to operate and maintain a generic, tactical class unmanned aircraft system target to support a wide variety of test requirements by providing generic threat representative support for test and experimentation missions.	0.573 -	0.580 -	0.452 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604258A / *TARGET SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 238 / *Aerial Targets*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Projects to be supported include the Space and Missile Defense Command High Energy Laser project, the Stinger proximity fuse development and testing, other missile system upgrade projects, JIAMDO sponsored Black Dart 2014, Littoral Combat Ship testing, and a variety of research and development efforts. Funds will enable the identification and correction of system anomalies identified during operations and the flight demonstration of system corrections. Funds will provide for limited engineering capability to address minor enhancements to the basic target system to meet shortcomings identified during operations. ***FY 2015 Plans:*** Will continue EMD for the UAS-T to operate and maintain a generic, tactical class unmanned aircraft system target to support a wide variety of test requirements by providing generic threat representative support for test and experimentation missions. Funds will enable the identification and correction of system anomalies identified during operations and the flight demonstration of system corrections. Funds will provide for limited engineering capability to address minor enhancements to the basic target system to meet shortcomings identified during operations. Funds will also provide for updating of the system drawing package and systems documents to incorporate modifications made to the system. Supports all Army systems needing to test ISR, kinetic, EW, IR or ISR capabilities against an unmanned aerial target with a medium flight envelope.			
Accomplishments/Planned Programs Subtotals	8.982	10.026	7.397

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0604258A / *TARGET SYSTEMS DEVELOPMENT*	Project (Number/Name) 459 / *Ground Targets*	

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
459: *Ground Targets*	-	3.601	3.455	2.643	-	2.643	2.528	7.618	3.985	4.168	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

Mibile Ground Target Hardware completed in FY13.

A. Mission Description and Budget Item Justification

This program funds Army efforts to support test and evaluation (T&E) of advanced weapon systems and supports Army Transformation by developing surrogates, acquiring foreign equipment and developing virtual target computer models of ground vehicle targets. These products are required to adequately stress weapon systems undergoing T&E. This tasking includes long-range planning to determine future target needs and development of coordinated requirement documents; the centralized management of the ground target research, development, test and evaluation processes; execution of the validation process; acquisition of foreign equipment; and continuing maintenance, storage, and development/enhancement/update via engineering services of developed and acquired targets to ensure availability for T&E customers. This program also manages use of current assets and operates centralized spare parts program. The US Army is the Tri-Service lead for providing mobile ground targets for T&E.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Mobile Ground Target Operations	2.476	2.753	2.079
Articles:	-	-	-
Description: Mobile Ground Target Operations to provide oversight of five Primary Operating Centers to include operation, storage, maintenance, repair, safety and configuration management. Efforts support users such as Brigade Modernization Command (BMC), Apache Block III, Guided Multiple Launch Rocket System (GMLRS), PM Robotic Unmanned Sensor (PM RUS), Small Diameter Bomb (SDB II), PM Unmanned Aircraft Systems (PM UAS) and others.			
FY 2013 Accomplishments: Mobile Ground Target Operations provides five Primary Operating Centers to include operations, storage, maintenance, repair, safety and configuration management for 67 active and 178 inactive Foreign Mobile Ground Target Vehicles, and acquisition of new material and spare parts. Efforts supported users such as U.S. Army Test and Evaluation Command (ATEC), Apache Block-III, GMLRS, Brigade Modernization Command, KIOWA, Ground Combat Vehicle, Shadow, Joint Light Tactical Vehicle(JLTV), PM Force Protection System, Unmanned Aircraft System, Light Armored Vehicle and others.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604258A / *TARGET SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 459 / *Ground Targets*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Mobile Ground Target Operations provides five Primary Operating Centers to include operations, storage, maintenance, repair, safety and configuration management for 67 active and 178 inactive Foreign Mobile Ground Target Vehicles, and acquisition of new material and spare parts. Efforts support users such as ATEC, Apache Block-III, GMLRS, Brigade Modernization Command, KIOWA, Ground Combat Vehicle, Shadow, Joint Light Tactical Vehicle(JLTV), PM Force Protection System, Unmanned Aircraft System, Light Armored Vehicle and others. ***FY 2015 Plans:*** Mobile Ground Target Operations provides five Primary Operating Centers to include operations, storage, maintenance, repair, safety and configuration management for 67 active and 178 inactive Foreign Mobile Ground Target Vehicles, and acquisition of new material and spare parts. Efforts will support users such as ATEC, Apache Block-III, GMLRS, Brigade Modernization Command, KIOWA, Ground Combat Vehicle, Shadow, Joint Light Tactical Vehicle(JLTV), PM Force Protection System, Unmanned Aircraft System, Light Armored Vehicle and others.			
Title: Mobile Ground Target Hardware	0.456	-	-
Articles:	-	-	-
Description: Mobile Ground Targets provides threat fleet with up to date threat representative ground targets that emulate the visual, infrared, radio frequency and acoustic signatures. These ground targets include: 1) air defense systems with emitters, 2) main battle tanks, 3) infantry fighting vehicles, 4) armored personnel carriers, 5) Decoys, and 6) insurgent representation to adequately stress weapon sensors and provide realistic maneuvers, and communications. Provides targets for multiple customers' DT & OT events to include U.S. Army Test and Evaluation Command (ATEC), Apache Block-III, GMLRS, Brigade Modernization Command, KIOWA, Ground Combat Vehicle, Shadow and others. ***FY 2013 Accomplishments:*** Completed the Mobile Ground Targets project that provided threat fleet with up to date threat representative ground targets that emulate the visual, infrared, radio frequency and acoustic signatures. These ground targets included: 1) air defense systems with emitters, 2) main battle tanks, 3) infantry fighting vehicles, 4) armored personnel carriers, 5) Decoys, and 6) insurgent representation to adequately stress weapon sensors and provide realistic maneuvers, and communications. Provides targets for multiple customers' DT & OT events to include ATEC, Apache Block-III, GMLRS, Brigade Modernization Command, KIOWA, Ground Combat Vehicle, Shadow and others.			
Title: Ground Virtual Targets	0.669	0.702	0.564
Articles:	-	-	-
Description: Government System Test and Evaluation to support the research and development of Ground Virtual Targets.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604258A / *TARGET SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 459 / *Ground Targets*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Continued Government System Test and Evaluation to fund the research and development of Ground Virtual Targets for evolving Army and DoD simulation standards and implementation techniques. Focus on simulation target models of wheeled and tracked ground vehicles in commonly used model formats; develop simulation target models visualization simulations, infrared (IR) analysis simulations, and radio frequency (RF) analysis simulations; support verification and validation of models, and provide archiving and distribution of simulation target models to simulation developers throughout the Army and DoD T&E communities. Simulation target models are employed to facilitate simulations for both developmental testing (DT) and operational testing (OT); Virtual Targets support test planning, test rehearsal, post-test analysis, hardware-in-the-loop testing, and execution of test events that are too costly or difficult to be conducted under actual field conditions. These models are used by multiple DoD agencies and multiple weapon systems such as the Joint Air to Ground Missile (JAGM) and Longbow Hellfire offices. ***FY 2014 Plans:*** Continue Government System Test and Evaluation to fund the research and development of Ground Virtual Targets for evolving Army and DoD simulation standards and implementation techniques. Focuses on simulation target models of wheeled and tracked ground vehicles in commonly used model formats; develop simulation target models visualization simulations, infrared (IR) analysis simulations, and radio frequency (RF) analysis simulations; supports verification and validation of models, and provides archiving and distribution of simulation target models to simulation developers throughout the Army and DoD T&E communities. Simulation target models will be employed to facilitate simulations for both developmental testing (DT) and operational testing (OT); Virtual Targets support test planning, test rehearsal, post-test analysis, hardware-in-the-loop testing, and execution of test events that are too costly or difficult to be conducted under actual field conditions. These models will be used by multiple DoD agencies and multiple weapon systems such as the Joint Air to Ground Missile (JAGM) and Longbow Hellfire offices. ***FY 2015 Plans:*** Will continue Government System Test and Evaluation to fund the research and development of Ground Virtual Targets for evolving Army and DoD simulation standards and implementation techniques. Will focus on simulation target models of wheeled and tracked ground vehicles in commonly used model formats; will develop simulation target models visualization simulations, infrared (IR) analysis simulations, and radio frequency (RF) analysis simulations; will support verification and validation of models, and will provide archiving and distribution of simulation target models to simulation developers throughout the Army and DoD T&E communities. Simulation target models will be employed to facilitate simulations for both developmental testing (DT) and operational testing (OT); Virtual Targets support test planning, test rehearsal, post-test analysis, hardware-in-the-loop testing, and execution of test events that are too costly or difficult to be conducted under actual field conditions. These models will be used by multiple DoD agencies and multiple weapon systems.			
Accomplishments/Planned Programs Subtotals	3.601	3.455	2.643

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604258A / *TARGET SYSTEMS DEVELOPMENT*	**Project (Number/Name)** 459 / *Ground Targets*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0604759A / *Major T&E Investment*							
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	-	45.057	46.647	60.317	-	60.317	39.531	61.520	68.614	68.871	-	-
983: *Reagan Test Site (RTS) T&E Investments*	-	7.872	7.758	5.915	-	5.915	5.716	7.273	7.337	7.418	-	-
984: *Major Developmental Testing Instrumentation*	-	30.969	33.235	51.877	-	51.877	28.809	43.013	49.016	51.587	-	-
986: *Major Operational Test Instrumentation*	-	6.216	5.654	2.525	-	2.525	5.006	11.234	12.261	9.866	-	-

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

Note

FY13 adjustments attributed to Congressional General Reductions (-74 thousand); SBIR/STTR transfers (-1.278 million); Sequestration reductions (-3.985 million) and Congressional Add (1.3 million).

A. Mission Description and Budget Item Justification

This program funds the development and acquisition of major developmental test instrumentation for the U.S. Army Test and Evaluation Command's (ATEC) test activities: White Sands Test Center (WSTC), NM; Yuma Test Center, (YTC), AZ; Aberdeen Test Center (ATC), MD; Electronic Proving Ground (EPG), AZ; Redstone Test Center (RTC), AL; and for the Reagan Test Site (RTS) at the U.S. Army Kwajalein Atoll (USAKA), which is managed by the Space and Missile Defense Command. The program also funds development and acquisition of Operational Test Command's (OTC) major field instrumentation. Requirements for instrumentation are identified through a long range survey of project managers, Research Development and Engineering Centers (RDECs), and Battle Laboratories developing future weapon systems and the test programs that support these systems. Army testing facilities are also surveyed to determine major testing capability shortfalls.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*			R-1 Program Element (Number/Name) PE 0604759A / *Major T&E Investment*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	37.394	46.672	52.631	-	52.631
Current President's Budget	45.057	46.647	60.317	-	60.317
Total Adjustments	7.663	-0.025	7.686	-	7.686
• Congressional General Reductions	-0.074	-0.025			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	13.000	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.278	-			
• Adjustments to Budget Years	-	-	7.686	-	7.686
• Other Adjustments	-3.985	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0604759A / *Major T&E Investment*				Project (Number/Name) 983 / *Reagan Test Site (RTS) T&E Investments*			
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**
983: *Reagan Test Site (RTS) T&E Investments*	-	7.872	7.758	5.915	-	5.915	5.716	7.273	7.337	7.418	-	-
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

A. Mission Description and Budget Item Justification: This activity funds improvement and modernization (I&M) for the Ronald Reagan Ballistic Missile Defense Test Site (RTS). Funding upgrades and combats parts obsolescence of the radars, telemetry, optics, range safety, communications, command/control and other equipment essential to meet requirements of the Services and DoD agencies and are crucial for investment protection of the sensor suite. These upgrades are critical both to maintain a state of the art instrumentation suite and to the successful collection of data supporting test and evaluation assessments and operational decisions for the Army; Navy; Air Force; U.S. Strategic Command (STRATCOM); Missile Defense Agency (MDA); Defense Advanced Research Projects Agency (DARPA); National Aeronautics and Space Administration (NASA); and other customers. Reagan Test Site (RTS) located in the Republic of the Marshall Islands, is a remote, secure activity of the Major Range and Test Facility Base (MRTFB). Without the required I&M funding RTS will not be able to continue to meet customer objectives and sustain the required instrumentation suite.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Radar Open Systems Architecture Refresh	-	0.050	0.100
Articles:	-	-	-
Description: Funding is provided for the following effort. ***FY 2014 Plans:*** Ensures the continued operation of KREMS radar sites by refreshing the design of the subsystems and replaces stale components with modern replacements. ***FY 2015 Plans:*** Will continue operation of KREMS radar sites by refreshing the design of the subsystems and replaces stale components with modern replacements.			
Title: RTS Optics Modernization Program (ROMP)	1.250	0.200	-
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604759A / *Major T&E Investment*	**Project (Number/Name)** 983 / *Reagan Test Site (RTS) T&E Investments*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to modernize RTS optics sensor suite, fixing deficiencies and enabling remote operations of the equipment ***FY 2014 Plans:*** Completes the deployment of the ROMP program			
Title: Radar Reliability Improvement Program (RRI). ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to address technology refresh, obsolescence and sustainment issues for critical radar system and L-Band Modulator operation. ***FY 2015 Plans:*** Will continue to address critical RADAR issues related to component obsolescence and sustainment that require significant re-design to incorporate commercially available options.	0.550 -	- -	0.337 -
Title: Radar Computer and Software Refresh ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to upgrade the system to a more common and widely available hardware platform with multiple vendor support and software. ***FY 2014 Plans:*** Completes the deployment and testing of the MRCR program.	0.650 -	0.100 -	- -
Title: Telemetry (TM) Modernization Study. ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2013 Accomplishments:***	0.500 -	0.510 -	2.050 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604759A / *Major T&E Investment*	**Project (Number/Name)** 983 / *Reagan Test Site (RTS) T&E Investments*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continued to replace outdated TM equipment with modern digital systems and enable remote operation. ***FY 2014 Plans:*** Continue extended software radio approach. ***FY 2015 Plans:*** Will continue extended software radio approach.			
Title: Multiple Simultaneous Engagement (MSE) Flight Safety.	1.050	0.610	0.600
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to modernize and upgrade flight safety systems to accomodate customer requirements. ***FY 2014 Plans:*** Will design and implement Range Safety Systems (RSS) upgrade of safety control system replacement. ***FY 2015 Plans:*** Will design and implement Range Safety Systems (RSS) upgrade of safety control system replacement.			
Title: Legacy Servo Upgrade Program.	0.494	1.355	0.100
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to replace and upgrade obsolete antenna serves and interlock systems at the RTS radars. ***FY 2014 Plans:*** Continues to replace and upgrade obsolete antenna serves and interlock systems at the RTS radars. ***FY 2015 Plans:*** Will continue to replace and upgrade obsolete antenna serves and interlock systems at the RTS radars.			
Title: Mission Data Network (MDN) Modernization.	1.900	0.906	0.350
Articles:	-	-	-
Description: MDN Modernization.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604759A / *Major T&E Investment*	**Project (Number/Name)** 983 / *Reagan Test Site (RTS) T&E Investments*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Continued replacing outdated network equipment and will improve on-atoll bandwidth to support increasing mission critical customer requirements. ***FY 2014 Plans:*** Continues new network architecture changes to improve on-toll bandwidth to support increasing custom requirements. ***FY 2015 Plans:*** Will continue new network architecture changes to improve on-toll bandwidth to support increasing custom requirements.			
Title: RTS Automation and Decision Support. ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued addition of automation measures and more sophisticated algorithms to improve operator efficiency. ***FY 2014 Plans:*** Continues addition of automation measures and more sophisticated algorithms to improve operator efficiency. ***FY 2015 Plans:*** Will continue addition of automation measures and more sophisticated algorithms to improve operator efficiency.	1.278 -	1.475 -	1.000 -
Title: TRADEX L-Band Modulator ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued replacement tube-based modulator and legacy high-voltage power supply with a commercial solid-state unit. ***FY 2014 Plans:*** Continues replacement tube-based modulator and legacy high-voltage power supply with a commercial solid-state unit. ***FY 2015 Plans:*** Will continue replacement tube-based modulator and legacy high-voltage power supply with a commercial solid-state unit.	0.200 -	2.202 -	0.703 -
Title: Net Centric Operations Upgrade ***Articles:***	- -	0.100 -	0.100 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604759A / *Major T&E Investment*	**Project (Number/Name)** 983 / *Reagan Test Site (RTS) T&E Investments*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Funding may be provided for the following effort ***FY 2014 Plans:*** Develops a Program Management Plan for the upgrade of Net Centric Operations. ***FY 2015 Plans:*** Will continue development of a Program Management Plan for the upgrade of Net Centric Operations			
Title: Transmitter Reliability Improvements	-	0.050	0.075
Articles:	-	-	-
Description: Funding may be provided for the following effort. ***FY 2014 Plans:*** Develops a Program Management Plan for the upgrade of Transmitter Reliability Improvements. ***FY 2015 Plans:*** Will continue to develop a Program Management Plan for the upgrade of Transmitter Reliability Improvements.			
Title: Optics Focal Plane Technology Replacement Study	-	0.200	0.200
Articles:	-	-	-
Description: Funding may be provided for the following effort ***FY 2014 Plans:*** Study into the use of a digital-pixel Focal Plane Array (DFPA) based cameras providing the potential to extend the wavelength coverage of RTS optics and provide an order of magnitude increase in integrated target signal when compared to existing COTS cameras. ***FY 2015 Plans:*** Will continue the study and prototype effort into the use of DFPA based cameras.			
Title: Legacy Radar Replacement Study	-	-	0.100
Description: Funding may be provided for the following effort ***FY 2015 Plans:*** Design and prototype a multi-static system and an approach that would be used to replace the legacy radars at the Range.			
Title: Self healing software and algorithms	-	-	0.100

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604759A / *Major T&E Investment*	**Project (Number/Name)** 983 / *Reagan Test Site (RTS) T&E Investments*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Funding may be provided for the following efforts ***FY 2015 Plans:*** Provide automatic software algorithms and hardware healing approach to the range sensor subsystems.			
Title: Range in a box - simulation over live study ***Description:*** Funding may be provided for the following effort ***FY 2015 Plans:*** Will conduct studies into the improvement of the current deployed simulation system capability and providing the necessary interface layer allowing the testing of asset software, hardware models, and simulation.	-	-	0.100
Accomplishments/Planned Programs Subtotals	7.872	7.758	5.915

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0604759A / *Major T&E Investment*	Project (Number/Name) 984 / *Major Developmental Testing Instrumentation*	

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
984: *Major Developmental Testing Instrumentation*	-	30.969	33.235	51.877	-	51.877	28.809	43.013	49.016	51.587	-	-
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 and acquires major test instrumentation to perform developmental testing of weapon systems at U. S. Army Test and Evaluation Command's (ATEC) activities which include: Yuma Test Center (YTC), AZ; Aberdeen Test Center (ATC), MD; Electronic Proving Ground (EPG), AZ; White Sands Test Center (WSTC), NM; Redstone Test Center (RTC), AL.

Projects are designated as a major test program based on their visibility, assessed relative technical risk (medium-high), schedule risk, cost (greater than $1.5 Million per year or $7.5 Million for the total project) and applicability to other mission areas or services. These projects are technically demanding, state-of-the-art, unique instrumentation assets or suites to meet the technology shortfalls, and generally result from development programs managed by a professional project management team. Systems Test and Integration Laboratory (STIL) is the development of a systems integration and test lab for use in developmental testing and integration engineering, including a virtual test environment to support integration testing of aviation electronic systems as a part of modernization of army aircraft. Range Radar Replacement Program (RRRP) will replace obsolete tracking radars at Redstone Test Center (RTC), Aberdeen Test Center (ATC), White Sands Missile Range (WSMR) and Yuma Proving Ground (YPG) with modern instrumentation radars. Common Range Integrated Instrumentation Systesm (CRIIS) Objective Program provides precision location instrumentation which will significantly increase the T&E ranges' capability to meet the test instrumentation needs of the tri-service range users. Electromagnetic Environmental Effects (E3) Electromagnetic Radiation Effects (EMRE) Systems Modernization will upgrade equipment at the WSMR EMRE site where E3 testing is performed to evaluate survivability and vulnerability of military systems. Project will upgrade and replace signal transmitters, refurbish an anechoic test chamber, replace data acquisition equipment and install a new turntable to support test items. Nuclear Effects Test Capability Modernization upgrades nuclear facilities at White Sands Missile Range (WSMR). These upgrades include the Relativistic Electron Beam Accelerator (REBA), Fast Burn Reactor, Gamma Range Facility, Linear Electron Accelerator (LINAC), Electromagnetic Pulse and the Solar Furnace. Warrior Injury Assessment Manikin (WIAMan) Anthropomorphic Test Device (ATD) plans to develop and produce Warrior-representative ATDs that incorporate associated biomedically-validated injury assessment tools to better characterize dynamic events and injury risks measured in Live Fire Test & Evaluation (LFT&E) and vehicle development efforts.

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 Range Radar Replacement Program.	25.029	22.086	30.979
Articles:	-	-	-
Description: EMD phase contract activities for the Range Radar Replacement Program.			
FY 2013 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604759A / *Major T&E Investment*	**Project (Number/Name)** 984 / *Major Developmental Testing Instrumentation*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continued Engineering Manufacturing Development (EMD) for the Range Radar Replacement Program for the Fly-out and Close-in Radars systems in preparation for replacement of equipment at Aberdeen Test Center (ATC), Redstone Test Center (RTC), White Sands Test Center (WSTC) and Yuma Test Center (YTC). ***FY 2014 Plans:*** Continues Engineering Manufacturing Development (EMD) for the Range Radar Replacement Program for the Fly-out and Close-in Radars systems in preparation for replacement of equipment at Aberdeen Test Center (ATC), Redstone Test Center (RTC), White Sands Test Center (WSTC) and Yuma Test Center (YTC). ***FY 2015 Plans:*** Will continue Engineering Manufacturing Development (EMD) for the Range Radar Replacement Program for the Fly-out and Close-in Radars systems in preparation for replacement of equipment at Aberdeen Test Center (ATC), Redstone Test Center (RTC), White Sands Test Center (WSTC) and Yuma Test Center (YTC).			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Systems Test and Integration Laboratory (STIL). ***Articles:*** ***Description:*** Continue EMD phase contract activities for the Systems Test and Integration Laboratory (STIL). ***FY 2013 Accomplishments:*** Continued EMD for the Systems Test and Integration Laboratory (STIL) for use in developmental testing and integration engineering, including a virtual test environment to support integration testing of aviation electronic systems as a part of modernization of Army aircraft. ***FY 2014 Plans:*** Continues EMD for the Systems Test and Integration Laboratory (STIL) for use in developmental testing and integration engineering, including a virtual test environment to support integration testing of aviation electronic systems as a part of modernization of Army aircraft. ***FY 2015 Plans:*** Will complete EMD for the Systems Test and Integration Laboratory (STIL) for use in developmental testing and integration engineering, including a virtual test environment to support integration testing of aviation electronic systems as a part of modernization of Army aircraft. Planned FOC 4 Qtr.	5.940 -	5.135 -	5.063 -
Title: Engineering and Manufacturing Development (EMD) phase contract activity of the Common Range Integrated Instrumentation System (CRIIS) Objective Program. ***Articles:***	- -	0.769 -	4.514 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604759A / *Major T&E Investment*	**Project (Number/Name)** 984 / *Major Developmental Testing Instrumentation*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Starts the EMD phase contract activities of the Common Range Integrated Instrumentation System (CRIIS) Objective Program. ***FY 2014 Plans:*** Starts EMD phase of the Common Range Integrated Instrumentation System (CRIIS) Objective Program. This will be a replacement system for the Advanced Range Data System (ARDS). This system will meet the critical need for measuring the precision location of units under test within the Time-Space domain. It will provide a significant increase to the Test & Evaluation ranges' capability to meet the test instrumentation needs of the tri-service range users. The improvements will be the data link, TSPI accuracy, miniaturization, standard interfaces, and sytem incryption. ***FY 2015 Plans:*** Will continue EMD of the Common Range Integrated Instrumentation System (CRIIS) Objective Program. This will be a replacement system for the Advanced Range Data System (ARDS). This system will meet the critical need for measuring the precision location of units under test within the Time-Space domain. It will provide a significant increase to the Test & Evaluation ranges' capability to meet the test instrumentation needs of the tri-service range users. The improvements will be the data link, TSPI accuracy, miniaturization, standard interfaces, and system encryption.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the E3 Systems Modernization (EMRE) project. ***Articles:*** ***Description:*** EMD phase contract activities for the E3 Systems Modernization (EMRE) project. ***FY 2014 Plans:*** EMD for the E3 Systems Modernization (EMRE) T2 and T3 transmitter systems. Project will upgrade and replace signal transmitters, refurbish an anechoic test chamber, replace data acquisition equipment and install a new turntable to support test items. ***FY 2015 Plans:*** Will continue the EMD for the E3 Systems Modernization (EMRE) T2 and T3 transmitter systems. Project will continue to upgrade and replace signal transmitters, refurbish an anechoic test chamber, replace data acquisition equipment and install a new turntable to support test items.	- -	3.613 -	5.317 -
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Nuclear Effects Test Capability Modernization. ***Articles:***	- -	0.850 -	6.004 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604759A / *Major T&E Investment*	**Project (Number/Name)** 984 / *Major Developmental Testing Instrumentation*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: EMD phase contract activity for the Nuclear Effects Test Capability Modernization. ***FY 2014 Plans:*** Starts the Engineering and Manufacturing Development (EMD) phase contract activity for the Nuclear Effects Test Capability Modernization. This program will upgrade nuclear facilities at White Sands Missile Range (WSMR). ***FY 2015 Plans:*** Will continue the Engineering and Manufacturing Development (EMD) phase contract activity for the Nuclear Effects Test Capability Modernization. This program will upgrade nuclear facilities at White Sands Missile Range (WSMR).			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Warrior Injury Assessment Manikin (WIAMan) Anthropomorphic Test Device (ATD). ***Articles:*** ***Description:*** Begin the EMD phase contract activity for the WIAMan Anthropomorphic Test Device (ATD). ***FY 2014 Plans:*** EMD phase contract activity for the WIAMan Anthropomorphic Test Device (ATD). This program will develop and produce Warrior-representative ATDs that incorporate associated biomedically-validated injury assessment tools to better characterize dynamic events and injury risks measured in Live Fire Test & Evaluation (LFT&E) and vehicle development efforts.	- -	0.782 -	- -
Accomplishments/Planned Programs Subtotals	30.969	33.235	51.877

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0604759A / *Major T&E Investment*				Project (Number/Name) 986 / *Major Operational Test Instrumentation*			
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**
986: *Major Operational Test Instrumentation*	-	6.216	5.654	2.525	-	2.525	5.006	11.234	12.261	9.866	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

Test and Training Initiative (T&TI) transitioned into Real Time Casualty Assessment (RTCA).

A. Mission Description and Budget Item Justification

Major Operational, Instrumentation and Modeling and Simulation (M&S) in support of Army Test and Evaluation Command (ATEC).

Analysis and development for Real-Time Casualty Assessment and instrumentation suite (RTCA) that delivers a high fidelity, realistic, real-time capability to measure hardware and personnel performance in modern combat environments. RTCA enables testing under tactical conditions for small and large-scale operations while integrating network operations and effects in support of Army Equipment Modernization Plan. RTCA also allows the U.S. Army to test all Current-to-Future, weapon systems in a realistic operational environment. RTCA Research, Development, Test and Evaluation (RDTE) develops performance enhancements and technology upgrades to the operational test command, control, and communications (C3) center, communications network, weapons system interfaces, vehicle and dismounted-troop kits and peripherals, Global Positioning Systems (GPS), encryption components, and integrates high-fidelity digital battlefield data collection and analysis tools. These tools will collect, store and analyze data from the digital battlefield. Improvements will enable the RTCA system to measure and record accrued damage, levels of exposure, effects of countermeasures, evasive action, and instrument threat vehicles. This capability is required by the operational test community to integrate digital battlefield data collection and analysis tools into the Network Integration Evaluation (NIE) and other operational tests.

Operational Test Command (OTC) Advanced Simulation & Instrumentation Systems (OASIS) Enterprise Integration System (EIS) supports operational test simulation and test support capabilities and will transition to Advanced Test and Evaluation Enterprise Architecture (ATEA). Operational testing of enterprise/systems of systems (SoS) capabilities requires an integrated test technology tools enterprise: 1) Test Planning & Control systems/networks, 2) Live-virtual-constructive (LVC) simulations, 3) Data Collection, Reduction, Analysis (DCRA), and visualization tools and 4) tactical systems and networks. OASIS-EIS transition to Advanced Test and Evaluation Enterprise Architecture (ATEA) will support test tool integration in three major areas: 1) OT test technology integration with other acquisition efforts (RTCA, networks, data collection), 2) Joint Network Emulation (JNE) program management, and 3) Shared development and enhancement of key simulation (primarily gaming, virtual, and constructive), and LVC integration capabilities. Initial focus for shared simulation/LVC enablers addressed network, indirect fire and ISR simulations, and LVC architecture planning, engineering and integration tools. Current efforts include evolution to ATEA to improve interoperability, better address sustainment operations, and increase standardization across the operational test enterprise.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604759A / *Major T&E Investment*	**Project (Number/Name)** 986 / *Major Operational Test Instrumentation*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Real-Time Casualty Assessment and Instrumentation Suite (RTCA)	1.170	2.616	2.525
Articles:	-	-	-
Description: Develop technology initiatives in support of common Army test and training capability gaps. ***FY 2013 Accomplishments:*** Supported Trade-Off Studies, Analysis of Trade-Off Studies, Analysis of Alternatives, Cost Benefit Analyses, Test Technology Demonstrations or Technology Readiness Events to ensure the requirements and performance specifications for emerging/future instrumentation and tactical engagement simulation systems meet the needs of the operational test and evaluation community. The initiative also helped develop and sustain an Army Test and Training Instrumentation Test Bed, as well as increasing the rigor of testing, to ensure that proposed solutions fulfill those requirements and thus reduce risk. ***FY 2014 Plans:*** Continues to support Trade-Off Studies, Analysis of Trade-Off Studies, Analysis of Alternatives, Cost Benefit Analyses, Test Technology Demonstrations or Technology Readiness Events to ensure the requirements and performance specifications for emerging/future instrumentation and tactical engagement simulation systems meet the needs of the operational test and evaluation community. The initiative will also help develop and sustain an Army Test and Training Instrumentation Test Bed, as well as increase the rigor of testing, to ensure that proposed solutions fulfill those requirements and thus reduce risk. ***FY 2015 Plans:*** Will fund the development of hardware, software, interfaces, and new capabilities to ensure Real Time Casualty Assessment (RTCA) requirements for upcoming operational tests are satisfied. Develops efforts that will initially be directed toward RTCA. Funds will also be allocated for RTCA communications infrastructure upgrades. Development efforts include: integration with new tactical systems under test, integration with Live, Virtual, and Constructive simulation environments, RTCA capabilities for active protection systems and countermeasures, RTCA capabilities for communications/sensor kills and degradations, development, integration, and testing of mission command effects and degradations, communications upgrade, new player units, new communications sub-systems, new encryption and RTCA capabilities for electronic warfare and countermeasures.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Operational Test Command (OTC) Advanced Simulation and Instrumentation System (OASIS) Enterprise Integration Solution.	0.786	3.038	-
Articles:	-	-	-
Description: EMD phase contract activities for the Operational Test Command (OTC) Advanced Simulation and Instrumentation System (OASIS) Enterprise Integration System (EIS) to include initial research and planning to achieve an Advanced Test and evaluation Enterprise Architecture (ATEA) to deliver a more comprehensive and sustainable operational test environment within current fiscal constraints.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604759A / *Major T&E Investment*	**Project (Number/Name)** 986 / *Major Operational Test Instrumentation*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Developed Operational Test Command (OTC) Advanced Simulation and Instrumentation Suite (OASIS) Enterprise Integration System (EIS). Funding supported integration of Federation members by OASIS EIS into a LVC environment to support OTC's operational testing support requirements for Joint Network Emulation (JNE), Network Integration Event (NIE) (13.1, 13.2), Distributed Common Ground System-Army (DCGS-A), Warfighter Information Network-Tactical (WIN-T), Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS). ***FY 2014 Plans:*** Continues EMD into Army Test and Evaluation Command (ATEC) Test and evaluation Enterprise Architecture (ATEA). Funding supports integration of Federation members by ATEA into the larger ATEC community and supports an enterprise into a LVC environment to support testing requirements for Operational Testing and Network Integration Events (NIEs) in support of Army Equipment Modernization Plan high priority weapon systems such as the Distributed Common Ground System-Army (DCGS-A), Warfighter Information Network (WIN-T) – Tactical and RTCA.			
Title: Major Instrumentation and Modeling and Simulation (M&S) in Support of Network Integration Test	4.260	-	-
Articles:	-	-	-
Description: Develop Major Instrumentation and Modeling and Simulation (M&S) efforts in support of Network Integration Test. In addition, develop and field a Real-Time, Hardware-in-the-Loop, M&S Federation, which can be accredited and portray Blue and Threat Computer Network Device (CND) and Controller Area Network (CAN) ***FY 2013 Accomplishments:*** Completed Major Instrumentation and M&S efforts in support of Network Integration Test related to limited fiber upgrades for WSMR, Net Advanced Distributed Modular Acquisition System (ADMAS) production, and updates to Army Test and Evaluation Command (ATEC)-wide data storage, distribution tools and analysis software.			
Accomplishments/Planned Programs Subtotals	6.216	5.654	2.525

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0604759A / *Major T&E Investment*	**Project (Number/Name)** 986 / *Major Operational Test Instrumentation*

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605103A / *Rand Arroyo Center*							
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	-	18.892	18.909	20.612	-	20.612	16.381	16.536	16.738	17.141	-	-
732: *Arroyo Center Spt*	-	18.892	18.909	20.612	-	20.612	16.381	16.536	16.738	17.141	-	-

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

Note

FY13 adjustments attributed to Congressional General Reductions (-28 thousand); SBIR/STTR transfers (-583 thousand); and Sequestration reductions (-1.523 million). FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

This program funds the RAND Arroyo Center, the Department of the Army's Federally Funded Research and Development Center (FFRDC) for studies and analysis. The Arroyo Center draws its researchers from RAND's staff of nearly 700 professionals trained in a broad range of disciplines. Most staff members work in RAND's principal locations-Santa Monica, California; Arlington, Virginia; and Pittsburgh, Pennsylvania. The RAND Arroyo Center provides for continuing analytical research across a broad spectrum of issues and concerns, grouped in four major research areas: Strategy, Doctrine, and Resources; Military Logistics; Manpower and Training; and Force Development and Technology. The RAND Arroyo Center research agenda is primarily focused on mid/long-term concerns. Results and analytical findings directly affect senior leadership deliberations on major issues. Arroyo Center research is sponsored by the Chief of Staff, Vice Chief, the Deputy Chiefs of Staff of the Army; the Army Assistant Secretaries; and most of the Army's major commands. The Arroyo Center is provided guidance from the Army through the Arroyo Center Policy Committee (ACPC), which is co-chaired by the Vice Chief of Staff of the Army and the Assistant Secretary of the Army (Acquisition, Logistics and Technology). The ACPC reviews, monitors, and approves the annual Arroyo Center research plan. Each project requires General Officer (or SES equivalent) sponsorship and involvement on a continuing basis. RAND Arroyo provides the Army with a unique multidisciplinary capability for independent analysis.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	21.026	11.919	27.148	-	27.148
Current President's Budget	18.892	18.909	20.612	-	20.612
Total Adjustments	-2.134	6.990	-6.536	-	-6.536
• Congressional General Reductions	-0.028	-0.010			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	7.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.583	-			
• Adjustments to Budget Years	-	-	-6.536	-	-6.536
• Other Adjustments	-1.523	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605103A / *Rand Arroyo Center*	Project (Number/Name) 732 / *Arroyo Center Spt*	

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
732: *Arroyo Center Spt*	-	18.892	18.909	20.612	-	20.612	16.381	16.536	16.738	17.141	-	-
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 the RAND Arroyo Center, the Department of the Army's Federally Funded Research and Development Center (FFRDC) for studies and analysis. The Arroyo Center draws its researchers from RAND's staff of nearly 700 professionals trained in a broad range of disciplines. Most staff members work in RAND's principal locations-Santa Monica, California; Arlington, Virginia; and Pittsburgh, Pennsylvania. The RAND Arroyo Center provides for continuing analytical research across a broad spectrum of issues and concerns, grouped in four major research areas: Strategy, Doctrine, and Resources; Military Logistics; Manpower and Training; and Force Development and Technology. The RAND Arroyo Center research agenda is primarily focused on mid/long-term concerns. Results and analytical findings directly affect senior leadership deliberations on major issues. Arroyo Center research is sponsored by the Chief of Staff, Vice Chief, the Deputy Chiefs of Staff of the Army; the Army Assistant Secretaries; and most of the Army's major commands. The Arroyo Center is provided guidance from the Army through the Arroyo Center Policy Committee (ACPC), which is co-chaired by the Vice Chief of Staff of the Army and the Assistant Secretary of the Army (Acquisition, Logistics and Technology). The ACPC reviews, monitors, and approves the annual Arroyo Center research plan. Each project requires General Officer (or SES equivalent) sponsorship and involvement on a continuing basis. RAND Arroyo provides the Army with a unique multidisciplinary capability for independent analysis.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Research addressing manpower and training	4.282	4.413	4.809
Articles:	-	-	-

Description: The key issues for the Army, including recruiting and personnel fill requirements; reserve component readiness; leader development; training (major combat operations and stability operations skills); distance learning, simulation training development and application; training support systems; retention (active command/reserve command); officer career fields, selection, assignment sequencing; and medical forces and operations.

FY 2013 Accomplishments:

The Planned Study program included key issues for the Army, including recruiting and personnel fill requirements; reserve component readiness; leader development; training (major combat operations and stability operations skills); distance learning, simulation training development and application; training support systems; retention (active command/reserve command); officer career fields, selection, assignment sequencing; and medical forces and operations.

FY 2014 Plans:

The Planned Study program includes numerous key issues for the Army, to include recruiting and personnel fill requirements; reserve component readiness; leader development; training (major combat operations and stability operations skills); distance

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605103A / *Rand Arroyo Center*	**Project (Number/Name)** 732 / *Arroyo Center Spt*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
learning, simulation training development and application; training support systems; retention (active command/reserve command); officer career fields, selection, assignment sequencing; and medical forces and operations. ***FY 2015 Plans:*** The Planned Study program will include numerous key issues for the Army, to include recruiting and personnel fill requirements; reserve component readiness; leader development; training (major combat operations and stability operations skills); distance learning, simulation training development and application; training support systems; retention (active command/reserve command); officer career fields, selection, assignment sequencing; and medical forces and operations.			
Title: Research addressing force development and technology ***Articles:*** ***Description:*** key issues for the Army, including systems and technology analysis; networks and C4ISR; modeling and simulation; force and organizational development; acquisition policies; and assessment of tactics, techniques, and procedures. ***FY 2013 Accomplishments:*** The Planned Study Program in force development and technology included key issues for the Army, including systems and technology analysis; networks and C4ISR; modeling and simulation; force and organizational development; acquisition policies; and assessment of tactics, techniques, and procedures. ***FY 2014 Plans:*** The Planned Study Program in force development and technology includes key issues for the Army, including systems and technology analysis; networks and C4ISR; modeling and simulation; force and organizational development; acquisition policies; and assessment of tactics, techniques, and procedures. ***FY 2015 Plans:*** The Planned Study Program in force development and technology will include key issues for the Army, including systems and technology analysis; networks and C4ISR; modeling and simulation; force and organizational development; acquisition policies; and assessment of tactics, techniques, and procedures.	3.992 -	4.315 -	4.704 -
Title: Research addressing Army logistics ***Articles:*** ***Description:*** Key issues for the Army, including supply chain management; fleet management and modernization; logistics force development; and infrastructure management. ***FY 2013 Accomplishments:***	3.917 -	3.830 -	4.175 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605103A / *Rand Arroyo Center*	**Project (Number/Name)** 732 / *Arroyo Center Spt*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
The Planned Study Program in Army logistics included key issues for the Army, including supply chain management; fleet management and modernization; logistics force development; and infrastructure management. ***FY 2014 Plans:*** The Planned Study Program in Army logistics includes key issues for the Army, including supply chain management; fleet management and modernization; logistics force development; and infrastructure management. ***FY 2015 Plans:*** The Planned Study Program in Army logistics will include key issues for the Army, including supply chain management; fleet management and modernization; logistics force development; and infrastructure management.			
Title: Research addressing strategies, doctrine, and resources ***Articles:*** ***Description:*** Key issues for the Army, including the evolving operating environment; capabilities to face new challenges; partner capabilities; capabilities for stability operations; improvement of resource management; learning from past and present operations; and supporting Army wargames and analysis. ***FY 2013 Accomplishments:*** The Planned Study Program in strategy, doctrine, and resources included key issues for the Army, including the evolving operating environment; capabilities to face new challenges; partner capabilities; capabilities for stability operations; improvement of resource management; learning from past and present operations; and supporting Army wargames and analysis. ***FY 2014 Plans:*** The Planned Study Program in strategy, doctrine, and resources includes key issues for the Army, including the evolving operating environment; capabilities to face new challenges; partner capabilities; capabilities for stability operations; improvement of resource management; learning from past and present operations; and supporting Army wargames and analysis. ***FY 2015 Plans:*** The Planned Study Program in strategy, doctrine, and resources will include key issues for the Army, including the evolving operating environment; capabilities to face new challenges; partner capabilities; capabilities for stability operations; improvement of resource management; learning from past and present operations; and supporting Army wargames and analysis.	5.116 -	5.236 -	5.708 -
Title: Research addressing military health ***Articles:*** ***Description:*** Key issues for the Army, including the impact of deployment on soldiers and families; quality of Army health care; medical manpower requirements; medical readiness of soldiers and programs; and implications of advances in medical technology.	1.585 -	1.115 -	1.216 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605103A / *Rand Arroyo Center*	**Project (Number/Name)** 732 / *Arroyo Center Spt*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: The Planned Study Program in military health included key issues for the Army, including the impact of deployment on soldiers and families; quality of Army health care; medical manpower requirements; medical readiness of soldiers and programs; and implications of advances in medical technology. ***FY 2014 Plans:*** The Planned Study Program in military health included key issues for the Army, including the impact of deployment on soldiers and families; quality of Army health care; medical manpower requirements; medical readiness of soldiers and programs; and implications of advances in medical technology. ***FY 2015 Plans:*** The Planned Study Program in military health will include key issues for the Army, including the impact of deployment on soldiers and families; quality of Army health care; medical manpower requirements; medical readiness of soldiers and programs; and implications of advances in medical technology.			
Accomplishments/Planned Programs Subtotals	18.892	18.909	20.612

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605301A *I ARMY KWAJALEIN ATOLL*							
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	-	162.089	193.555	176.041	-	176.041	179.830	182.878	186.344	185.462	-	-
614: *Army Kwajalein Atoll*	-	162.089	0.417	-	-	-	-	-	-	-	-	-
DW7: *Army Kwajalein Atoll Facilities Sustainment*	-	-	32.981	32.967	-	32.967	33.584	34.192	35.645	34.914	-	-
DW8: *Army Kwajalein Atoll Installation Services*	-	-	74.852	74.933	-	74.933	76.443	77.773	78.982	79.004	-	-
DW9: *Army Kwajalein Atoll Restoration And Modernization*	-	-	9.595	1.965	-	1.965	1.967	1.970	1.973	2.012	-	-
DX2: *Army Kwajalein Test Ranges and Mission Support*	-	-	75.710	66.176	-	66.176	67.836	68.943	69.744	69.532	-	-

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

A. Mission Description and Budget Item Justification

The U.S. Army Kwajalein Atoll/Ronald Reagan Ballistic Missile Defense Test Site (USAKA/RTS), located in the Republic of the Marshall Islands, is a remote, secure activity of the Major Range and Test Facility Base (MRTFB). Its function is to support test and evaluation of major Army and DoD acquisition programs and to provide space operations (surveillance and object identification) in support of U.S. Strategic Command (USSTRATCOM) and National Aeronautics and Space Administration (NASA) scientific and space programs. Programs supported include Army missile defense, Air Force and Navy Intercontinental Ballistic Missile (ICBM) developmental and operational tests; Army, Air Force and Defense Advanced Research Projects Agency (DARPA) hypersonic developmental tests; Missile Defense Agency (MDA) demonstration/validation tests; , USSTRATCOM space situational awareness requirements (inc contributions to the U.S. Space Surveillance Network); and NASA Space Shuttle and orbital debris experiments. USAKA/RTS is a government-managed/contractor-operated (GMCO) site and is dependent upon its associated support contractors for operations and maintenance (O&M). Program funds contractors to accomplish O&M for both the RTS instrumentation suite and installation/base operations and provides mission essential bandwidth via a fiber optics cable system. Funding is required to maintain O&M support, while accepting moderate risk of continued degradation of USAKA/RTS infrastructure (housing, offices, and facilities), higher future repair costs, and reduced logistical support capability. The instrumentation suite consists of a number of sophisticated, one-of-a-kind, radar, optical, telemetry, command/control/communications, safety, and data reduction systems. These systems include the four unique radars of the Kiernan Reentry Measurement Site (KREMS); Super Recording Automatic Digital Optical Tracker (SRADOT) long range video-metric tracking systems; high density data recorders for high data-rate telemetry collected by nine antennas; an underwater acoustic impact location system; and data analysis/reduction hardware/software. The Advanced Research Project Agency (ARPA) Long-Range Tracking and Instrumentation Radar (ALTAIR), and the Target Resolution Discrimination Experiment (TRADEX) radars located at USAKA/RTS, are two of only three radars world-wide that have deep-space tracking capability. The Millimeter Wave Radar (MMW) is the most powerful imaging radar in the world. Funding enables weapon system assessment of operational effectiveness and suitability for the Army, Air Force, Navy and MDA, which all have programs planned that have significant test and data gathering requirements at USAKA/RTS. This test data cannot be obtained except through the use of technical facilities available on and in the vicinity of USAKA/RTS. Program supports Army's

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 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605301A *I ARMY KWAJALEIN ATOLL*

PATRIOT air defense system and the Advanced Hypersonic Weapon technology development program; Air Force's Minuteman III ICBM and the Space and Missile Center's associated programs; MDA's Ballistic Missile Defense System, Flexible Target Family (FTF), and Family of Systems; NASA's Space Transportation System (STS), Small Expendable Deployer System and Orbital Debris Measurement Programs.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	176.816	193.658	188.877	-	188.877
Current President's Budget	162.089	193.555	176.041	-	176.041
Total Adjustments	-14.727	-0.103	-12.836	-	-12.836
• Congressional General Reductions	-0.253	-0.103			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	3.076	-			
• SBIR/STTR Transfer	-3.263	-			
• Adjustments to Budget Years	-	-	-12.836	-	-12.836
• Other Adjustments	-14.287	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605301A / *ARMY KWAJALEIN ATOLL*				Project (Number/Name) 614 / *Army Kwajalein Atoll*			
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**
614: *Army Kwajalein Atoll*	-	162.089	0.417	-	-	-	-	-	-	-	-	-
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

. Mission Description and Budget Item Justification: Project 614, 665301.614 is realigned to Project DX2, allocation 65301.DX2. Project Element 665301.614 is realigned to 5 Project Elements: 665301.614, 665301.DX2, 665301.DW7, 665301.DW8 and 665301.DW9. Funding for management and contracting personnel support (salaries and travel) to enable the management of the test and evaluation of major Army and DoD missile systems for the Ronald Reagan Ballistic Missile Defense Test Site (RTS) will be funded by Project Element 665301.DX2 starting FY15. The U.S. Army Kwajalein Atoll/Ronald Reagan Ballistic Missile Defense Test Site (USAKA/RTS), located in the Republic of the Marshall Islands, is a remote, secure activity of the Major Range and Test Facility Base (MRTFB). Its function is to support test and evaluation of major Army and DoD acquisition programs and to provide space operations (surveillance and object identification) in support of U.S. Strategic Command (USSTRATCOM) and National Aeronautics and Space Administration (NASA) scientific and space programs. Programs supported include Army missile defense, Air Force and Navy Intercontinental Ballistic Missile (ICBM) developmental and operational tests; Army, Air Force and Defense Advanced Research Projects Agency (DARPA) hypersonics developmental tests; Missile Defense Agency (MDA) demonstration/validation tests; , USSTRATCOM space situational awareness requirements (inc contributions to the U.S. Space Surveillance Network); and NASA Space Shuttleand orbital debris experiments. USAKA/RTS is a government-managed/contractor-operated (GMCO) site and is dependent upon its associated support contractors for operations and maintenance (O&M). Program funds contractors to accomplish O&M for both the RTS instrumentation suite and installation/base operations and provides mission essential bandwidth via a fiber optics cable system. Funding is required to maintain O&M support, while accepting moderate risk of continued degradation of USAKA/RTS infrastructure (housing, offices, and facilities), higher future repair costs, and reduced logistical support capability. The instrumentation suite consists of a number of sophisticated, one-of-a-kind, radar, optical, telemetry, command/control/communications, safety, and data reduction systems. These systems include the four unique radars of the Kiernan Reentry Measurement Site (KREMS); Super Recording Automatic Digital Optical Tracker (SRADOT) long range video-metric tracking systems; high density data recorders for high data-rate telemetry collected by nine antennas; an underwater acoustic impact location system; and data analysis/reduction hardware/software. The Advanced Research Project Agency (ARPA) Long-Range Tracking and Instrumentation Radar (ALTAIR), and the Target Resolution Discrimination Experiment (TRADEX) radars located at USAKA/RTS, are two of only three radars world-wide that have deep-space tracking capability. The Millimeter Wave Radar (MMW) is the most powerful imaging radar in the world. Funding enables weapon system assessment of operational effectiveness and suitability for the Army, Air Force, Navy and MDA, which all have programs planned that have significant test and data gathering requirements at USAKA/RTS. This test data cannot be obtained except through the use of technical facilities available on and in the vicinity of USAKA/RTS. Program supports Army's PATRIOT air defense system and the Advanced Hypersonic Weapon technology development program; Air Force's Minuteman III ICBM and the Space and Missile Center's associated programs; MDA's Ballistic Missile Defense System, Flexible Target Family (FTF), and Family of Systems; NASA's Space Transportation System (STS), Small Expendable Deployer System and Orbital Debris Measurement Programs.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605301A / *ARMY KWAJALEIN ATOLL*	**Project (Number/Name)** 614 / *Army Kwajalein Atoll*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Management and Contracting Support	10.300	0.417	-
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to provide management support (salaries, training, travel, Space & Missile Defense Command (SMDC) matrix, etc) to support test and evaluation of major Army and DoD missile systems and to provide space operations-surveillance and object identification. ***FY 2014 Plans:*** Continues to provide management support (salaries, training, travel, Space & Missile Defense Command (SMDC) matrix, etc) to support test and evaluation of major Army and DoD missile systems and to provide space operations-surveillance and object identification.			
Title: Sustainment and Restoration/Modernization	30.000	-	-
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to accomplish facility maintenance and repair projects, including design and demolition.			
Title: Procure petroleum, oils and lubricants (POL).	23.000	-	-
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to procure petroleum, oils and lubricants (POL).			
Title: Procure other mission services.	2.160	-	-
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to procure other mission services.			
Title: Transportation	7.200	-	-
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605301A / *ARMY KWAJALEIN ATOLL*	**Project (Number/Name)** 614 / *Army Kwajalein Atoll*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to provide air and sea transportation (cargo to and from continental United States).			
Title: Kwajalein Cable System (KCS)	11.400	-	-
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to provide funding for Kwajalein Cable System (KCS) fiber optic cable for annual service contract.			
Title: Direct Customers	49.017	-	-
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to support Army, MDA, NASA and Air Force development and operational missile testing.			
Title: Logistical Support of the self-contained islands of USAKA	25.812	-	-
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to provide logistical support (facilities maintenance and repair, aviation, automotive, marine, medical, food services, education, information management , DIACAP certification and accreditation, environmental compliance, etc.) to self contained islands of USAKA.			
Title: RTS Distributed Operations	3.200	-	-
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Continued to provide for RTS Distributed Operations (distributed operations of the Range sensors from Continental U.S.).			
Accomplishments/Planned Programs Subtotals	162.089	0.417	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605301A / *ARMY KWAJALEIN ATOLL*	**Project (Number/Name)** 614 / *Army Kwajalein Atoll*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605301A / *ARMY KWAJALEIN ATOLL*	Project (Number/Name) DW7 / *Army Kwajalein Atoll Facilities Sustainment*	

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
DW7: *Army Kwajalein Atoll Facilities Sustainment*	-	-	32.981	32.967	-	32.967	33.584	34.192	35.645	34.914	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

Program was previously in a different Program Element/Project-665301-DX2.

A. Mission Description and Budget Item Justification

Maintains US Army Kwajalein Atoll Installation facilities in the current condition and includes regularly scheduled adjustments and inspections, preventative maintenance tasks, and emergency response for minor repairs as well as major repairs or replacement of facility components expected to occur periodically throughout the life cycle of facilities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Facility Sustainment	-	32.981	32.967
Articles:	-	-	-
Description: Facilities Sustainment ***FY 2014 Plans:*** Maintains faciltiy infrastructure on US Army Garrison Kwajalein Atoll (USAGKA). ***FY 2015 Plans:*** Will Maintain faciltiy infrastructure on US Army Garrison Kwajalein Atoll (USAGKA).			
Accomplishments/Planned Programs Subtotals	-	32.981	32.967

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605301A / *ARMY KWAJALEIN ATOLL*	**Project (Number/Name)** DW7 / *Army Kwajalein Atoll Facilities Sustainment*

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605301A / *ARMY KWAJALEIN ATOLL*	Project (Number/Name) DW8 / *Army Kwajalein Atoll Installation Services*	

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
DW8: *Army Kwajalein Atoll Installation Services*	-	-	74.852	74.933	-	74.933	76.443	77.773	78.982	79.004	-	-
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 U.S. Army Kwajalein (USAKA) located in the Republic of the Marshall Islands, is a remote, secure activity of the Major Range and Test Facility Base (MRTFB). Its function is to support test and evaluation of major Army and DoD acquisition programs and to provide space operations (surveillance and object identification) in support of U.S. Strategic Command (USSTRATCOM) and National Aeronautics and Space Administration (NASA) scientific and space programs. USAKA is a government-managed/contractor-operated (GMCO) site and is dependent upon its associated support contractors for operations and maintenance (O&M). Program funds contractors to accomplish O&M for installation/base operations other Installation Services Support (ISS). Funding is required to maintain O&M support, while accepting moderate risk of continued degradation of USAKA infrastructure (housing, offices, and facilities), higher future repair costs, and reduced logistical support capability. Other ISS consists of: Medical services, education services, food /grocery services and logistical requirements needed to support Installation Operations and Management and ensure the continued T&E and space operations of the Regan Test Site as a Major Range and Test Facility Base (MRTFB) activity.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Base Operations Support	-	40.521	39.784
Articles:	-	-	-
Description: Provides for Base Operations to ensure the health, safety and welfare of Garrison and Tennant personnel and families. Provides for Base Operations to ensure the health, safety and welfare of Garrison and Tennant personnel and families. Functions supported, Installation Management, Administrative and Civil Law, Criminal Law and Discipline, Client Services, Claims, Religious Support, Public Affairs, Equal Employment Opportunity (EEO), Internal Review, Installation Safety and Occupational Health, Administrative Services. Program/Budget. Support Agreement/Memorandums of Understanding /Memorandums of Agreement (MOU/MOA) Management, Management Accounting, Installation Tables of Distribution and Allowance (TDA) Management, Management Analysis, Unaccompanied Personnel Housing and Basic Officers Quarters Management, Family Housing Management, Army Substance Abuse Program, Army Community Services, Child and Youth Sports, Recreation, and Libraries, Business Operations, Schools, Fire and Emergency Response Services, Custodial Services, Refuse Removal, Maintenance - Grounds, Electrical Services, Heating/Cooling Services, Water Services, Waste Water Services, Other Utility Services, Compliance Programs, Conservation Programs, Pollution Prevention Programs, Indoor Pest Management, Outdoor Pest Management, Physical Security, Law Enforcement Services, Anti-Terrorism Services, Installation Security Program Management			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605301A / *ARMY KWAJALEIN ATOLL*	**Project (Number/Name)** DW8 / *Army Kwajalein Atoll Installation Services*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Support, Army Emergency Management Services, Military Personnel Services, Civilian Personnel Services, Continuing Education, Command and Control (Emergency Disaster Prep), Host Nation Services, Protocol Services. ***FY 2014 Plans:*** Provides for Base Operations to ensure the health, safety and welfare of Garrison and Tennant personnel and families. Provides for Base Operations to ensure the health, safety and welfare of Garrison and Tennant personnel and families. Functions supported, Installation Management, Administrative and Civil Law, Criminal Law and Discipline, Client Services, Claims, Religious Support, Public Affairs, Equal Employment Opportunity (EEO), Internal Review, Installation Safety and Occupational Health, Administrative Services. Program/Budget. Support Agreement/Memorandums of Understanding/Memorandums of Agreement (MOU/MOA) Management, Management Accounting, Installation Tables of Distribution and Allowance (TDA) Management, Management Analysis, Unaccompanied Personnel Housing and Basic Officers Quarters Management, Family Housing Management, Army Substance Abuse Program, Army Community Services, Child and Youth Sports, Recreation, and Libraries, Business Operations, Schools, Fire and Emergency Response Services, Custodial Services, Refuse Removal, Maintenance - Grounds, Electrical Services, Heating/Cooling Services, Water Services, Waste Water Services, Other Utility Services, Compliance Programs, Conservation Programs, Pollution Prevention Programs, Indoor Pest Management, Outdoor Pest Management, Physical Security, Law Enforcement Services, Anti-Terrorism Services, Installation Security Program Management Support, Army Emergency Management Services, Military Personnel Services, Civilian Personnel Services, Continuing Education, Command and Control (Emergency Disaster Prep), Host Nation Services, Protocol Services. ***FY 2015 Plans:*** Provides for Base Operations to ensure the health, safety and welfare of Garrison and Tennant personnel and families. Provides for Base Operations to ensure the health, safety and welfare of Garrison and Tennant personnel and families. Functions supported, Installation Management, Administrative and Civil Law, Criminal Law and Discipline, Client Services, Claims, Religious Support, Public Affairs, Equal Employment Opportunity (EEO), Internal Review, Installation Safety and Occupational Health, Administrative Services. Program/Budget. Support Agreement/Memorandums of Understanding /Memorandums of Agreement (MOU/MOA) Management, Management Accounting, Installation Tables of Distribution and Allowance (TDA) Management, Management Analysis, Unaccompanied Personnel Housing and Basic Officers Quarters Management, Family Housing Management, Army Substance Abuse Program, Army Community Services, Child and Youth Sports, Recreation, and Libraries, Business Operations, Schools, Fire and Emergency Response Services, Custodial Services, Refuse Removal, Maintenance - Grounds, Electrical Services, Heating/Cooling Services, Water Services, Waste Water Services, Other Utility Services, Compliance Programs, Conservation Programs, Pollution Prevention Programs, Indoor Pest Management, Outdoor Pest Management, Physical Security, Law Enforcement Services, Anti-Terrorism Services, Installation Security Program Management			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605301A / *ARMY KWAJALEIN ATOLL*	**Project (Number/Name)** DW8 / *Army Kwajalein Atoll Installation Services*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Support, Army Emergency Management Services, Military Personnel Services, Civilian Personnel Services, Continuing Education, Command and Control (Emergency Disaster Prep), Host Nation Services, Protocol Services.			
Title: Logistical Support	-	27.207	28.126
Articles:	-	-	-

Description: Provides All Logistics Functions to include Water transportation and Air Field Operations along with Transportation, Supply, Laundry, Food Service and Maintenance. Supply provides for installation supply operations which include: Ammunition Supply Point services, secondary items and bulk petroleum for garrison and non-brigade tenant units, operation of a central receiving point for goods delivered to the installation, management of Organizational Clothing and Individual Equipment (OCIE), management of non-deployable installation property, and receipt, storage, issue, reutilization and tracking of hazardous materials. Maintenance includes DS/GS support maintenance (Non-Tactical Support). Provides funding for installation supply operations which include: Ammunition Supply Point services, secondary items and bulk petroleum for garrison and non-brigade tenant units, operation of a central receiving point for goods delivered to the installation, management of OCIE, management of non-deployable installation property, and receipt, storage, issue, reutilization and tracking of hazardous materials. Maintenance includes DS/GS support maintenance (Non-Tactical Support). Transportation includes the operation of transportation motor pools, installation transportation offices, intra-installation rail equipment, and cost of leased vehicles; also includes storage and movement of privately-owned household goods of military personnel (and civilian personnel in overseas areas) in connection with assignment, reassignment, or termination of government-furnished family housing when no PCS orders are issued. Excludes OSA and Watercraft. Laundry account funds Government Owned Government Operated (GOGO), Government Owned Contractor Operated (GOCO), and Contractor Owned Contractor Operated (COCO) facilities that provide laundry and dry cleaning service for OCIE items to units IAW AR 210-130. Food account funds the operation of Active, Guard, and Reserve dining facilities and Troop Issue Subsistence Activities (TISA), including pay of government and contract employees, food service supplies, and replacement equipment.

FY 2014 Plans:
Transportation, Supply, Laundry, Food Service and Maintenance. Supply provides for installation supply operations which include: Ammunition Supply Point services, secondary items and bulk petroleum for garrison and non-brigade tenant units, operation of a central receiving point for goods delivered to the installation, management of OCIE, management of non-deployable installation property, and receipt, storage, issue, reutilization and tracking of hazardous materials. Maintenance includes DS/GS support maintenance (Non-Tactical Support). Provides funding for installation supply operations which include: Ammunition Supply Point services, secondary items and bulk petroleum for garrison and non-brigade tenant units, operation of a central receiving point for goods delivered to the installation, management of OCIE, management of non-deployable installation property, and receipt, storage, issue, reutilization and tracking of hazardous materials. Maintenance includes DS/GS support maintenance (Non-Tactical Support). Transportation includes the operation of transportation motor pools, installation transportation offices,

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605301A / *ARMY KWAJALEIN ATOLL*	**Project (Number/Name)** DW8 / *Army Kwajalein Atoll Installation Services*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
intra-installation rail equipment, and cost of leased vehicles; also includes storage and movement of privately-owned household goods of military personnel (and civilian personnel in overseas areas) in connection with assignment, reassignment, or termination of government-furnished family housing when no PCS orders are issued. Excludes OSA and Watercraft. Laundry account funds Government Owned Government Operated (GOGO), Government Owned Contractor Operated (GOCO), and Contractor Owned Contractor Operated (COCO) facilities that provide laundry and dry cleaning service for OCIE items to units IAW AR 210-130. Food account funds the operation of Active, Guard, and Reserve dining facilities and Troop Issue Subsistence Activities (TISA), including pay of government and contract employees, food service supplies, and replacement equipment. ***FY 2015 Plans:*** Transportation, Supply, Laundry, Food Service and Maintenance. Supply provides for installation supply operations which include: Ammunition Supply Point services, secondary items and bulk petroleum for garrison and non-brigade tenant units, operation of a central receiving point for goods delivered to the installation, management of OCIE, management of non-deployable installation property, and receipt, storage, issue, reutilization and tracking of hazardous materials. Maintenance includes DS/ GS support maintenance (Non-Tactical Support). Provides funding for installation supply operations which include: Ammunition Supply Point services, secondary items and bulk petroleum for garrison and non-brigade tenant units, operation of a central receiving point for goods delivered to the installation, management of OCIE, management of non-deployable installation property, and receipt, storage, issue, reutilization and tracking of hazardous materials. Maintenance includes DS/GS support maintenance (Non-Tactical Support). Transportation includes the operation of transportation motor pools, installation transportation offices, intra-installation rail equipment, and cost of leased vehicles; also includes storage and movement of privately-owned household goods of military personnel (and civilian personnel in overseas areas) in connection with assignment, reassignment, or termination of government-furnished family housing when no PCS orders are issued. Excludes OSA and Watercraft. Laundry account funds Government Owned Government Operated (GOGO), Government Owned Contractor Operated (GOCO), and Contractor Owned Contractor Operated (COCO) facilities that provide laundry and dry cleaning service for OCIE items to units IAW AR 210-130. Food account funds the operation of Active, Guard, and Reserve dining facilities and Troop Issue Subsistence Activities (TISA), including pay of government and contract employees, food service supplies, and replacement equipment.			
Title: Medical Support	-	7.124	7.023
Articles:	-	-	-
Description: Salaries for contractor, contractor oversight personnel and personnel performing inherently governmental missions for all Medical functions to include inspections of Medical facilities and calibration of equipment. ***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
Salaries for contractor, contractor oversight personnel and personnel performing inherently governmental missions for all Medical functions to include inspections of Medical facilities and calibration of equipment. ***FY 2015 Plans:*** Salaries for contractor, contractor oversight personnel and personnel performing inherently governmental missions for all Medical functions to include inspections of Medical facilities and calibration of equipment.			
Accomplishments/Planned Programs Subtotals	-	74.852	74.933

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605301A / *ARMY KWAJALEIN ATOLL*	Project (Number/Name) DW9 / *Army Kwajalein Atoll Restoration And Modernization*	

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
DW9: *Army Kwajalein Atoll Restoration And Modernization*	-	-	9.595	1.965	-	1.965	1.967	1.970	1.973	2.012	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

A. Mission Description and Budget Item Justification

Funds the Restoration US Army Kwajalein Atoll Installation critical infrastructure (real property /facilities) to such a condition that they may be used for original designated purpose. Restoration includes repair or replacement work to restore facilities damaged by inadequate sustainment, excessive age, natural disaster, fire, accident, or other causes. Funds the alteration or replacement of facilities to implement new or higher standards, to accommodate new functions, and to replace building components that last more than 50 years (such as the framework or foundation)

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Facility Restoration / Modernization	-	9.595	1.965
Articles:	-	-	-
Description: Funding is provided for the following effort provides for updates and/or replacement of infrastructure critical to the mission and well being of the island tennants. Restores facilities at risk to the health and safety of the civilians, military, and families stationed on the island due to inadequate sustainment in past years.			
FY 2014 Plans: Funding is provided for the following effort provides for updates and/or replacement of infrastructure critical to the mission and well being of the island tennants. Restores facilities at risk to the health and safety of the civilians, military, and families stationed on the island due to inadequate sustainment in past years.			
FY 2015 Plans: Will provide for updates and/or replacement of infrastructure critical to the mission and well being of the island tennants. Will restore facilities currently at risk to the health and safety of the civilians, military, and families stationed on the island due to inadequate sustainment in past years.			
Accomplishments/Planned Programs Subtotals	-	9.595	1.965

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605301A / *ARMY KWAJALEIN ATOLL*	**Project (Number/Name)** DW9 / *Army Kwajalein Atoll Restoration And Modernization*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605301A / *ARMY KWAJALEIN ATOLL*				Project (Number/Name) DX2 / *Army Kwajalein Test Ranges and Mission 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**
DX2: *Army Kwajalein Test Ranges and Mission Support*	-	-	75.710	66.176	-	66.176	67.836	68.943	69.744	69.532	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

A. Mission Description and Budget Item Justification

A. Mission Description and Budget Item Justification:
SMDC-ARSTRAT - Project DX2 was created in 2013 as allocation for 665301.DX2, realigned from 665301.614. Funding for management and contracting personnel support (salaries and travel) to enable the management of the test and evaluation of major Army and DoD missile systems for the Ronald Reagan Ballistic Missile Defense Test Site (RTS) will be funded by Project Element 665301.DX2 starting FY15. The mission has increased two-fold since the beginning of FY14. Previously funded for 3 work-years to provide contracting support but now the mission requires 6 work-years. The Headquarters, Army Material Command (HQ AMC) would receive these funds for contracting support missions to the U.S. Army Kwajalein Atoll / Ronald Reagan Ballistic Missile Defense Test Site (USAKA/RTS). The contracting support was transferred from the United States Army Space and Missile Defense Command to the United States Army Contracting Command (subordinate command to HQ AMC) in FY 2013. The Ronald Reagan Ballistic Missile Defense Test Site (RTS) is a tenant on the US Army Garrison – Kwajalein Atoll (USAG-KA), located within the Kwajalein Atoll in the Republic of the Marshall Islands, is a remote, secure activity of the Major Range and Test Facility Base (MRTFB). Its function is to support test and evaluation of major Army and DoD acquisition programs and to provide space operations (Space Situational Awareness; object tracking & identification) in support of U.S. Strategic Command (USSTRATCOM) and National Aeronautics and Space Administration (NASA) scientific and unique space programs. Programs supported include Army missile defense, Air Force and Navy Intercontinental Ballistic Missile (ICBM) developmental and operational tests; Army, Air Force and Defense Advanced Research Projects Agency (DARPA) hypersonic Boost-Glide developmental tests; Missile Defense Agency (MDA) demonstration/validation tests; USSTRATCOM space situational awareness requirements (including contributions to the U.S. Space Surveillance Network); and NASA ionospheric, space debris, and missile data collection experiments. RTS is a government-managed/contractor-operated (GMCO) site and is dependent upon its associated support contractors for operations and maintenance (O&M). Program funds drive civilian authorizations to accomplish the contracting support mission which provides end item procurement, life cycle acquisition planning, and solicitation, negotiation, award, execution and management for weapon systems contracts. Program funds contractors to accomplish O&M for RTS instrumentation suites and provides mission essential bandwidth via a fiber optics cable system. The instrumentation suite consists of a number of sophisticated, one-of-a-kind, radar, optical, telemetry, command/control/communications, safety, and data reduction systems. These systems include the four unique radars of the Kiernan Reentry Measurement Site (KREMS); Super Recording Automatic Digital Optical Tracker (SRADOT) long range video-metric tracking systems; high density data recorders for high data-rate telemetry collected by ten antennas; an underwater acoustic impact location system; and data analysis/reduction hardware/software and CONUS based mission control center. The Advanced Research Project Agency (ARPA) Long-Range Tracking and Instrumentation Radar (ALTAIR), and the Target Resolution Discrimination Experiment (TRADEX) radars located at RTS, are the only radar in this area of operation that have deep-space tracking capability. The Millimeter Wave Radar (MMW) is one of the highest resolution imaging radar in the world providing critical intelligence data. Funding enables weapon system assessment of operational effectiveness and suitability for the Army, Air Force, Navy and MDA, which all have programs planned that have significant test and data gathering requirements at RTS. This test data cannot be obtained except through the use of technical facilities available on and in the vicinity of RTS. Program supports

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
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Army's PATRIOT air defense system and the Advanced Hypersonic Weapon (Boost-Glide) technology development program; Air Force's Minuteman III ICBM and the Space and Missile Center's associated programs; MDA's Ballistic Missile Defense System, Flexible Target Family (FTF), and Layered Ballistic Missile Defense operational tests (including: PATRIOT, Terminal High-Altitude Area Defense (THAAD), and AEGIS weapon systems), and NASA's space experiments and Orbital Debris Measurement Programs.

NETCOM - The Network Enterprise Technology Command (NETCOM) funds Department of Army civilian pay, manpower service contracts, supporting IT equipment, and associated costs specifically identified and measurable to plan, manage, coordinate, and execute Information Technology Services Management. Provides Command, Control, Communications, Computers, and Information Management (C4IM) services in accordance with the DA PAM 25-1-1 and the Army C4IM Services List. Provides Base Communications Support (Service 701), Visual Information (Service 702), Information Assurance (Service 703), and Automation (Service 700). Includes the delivery of services consisting of secure and non-secure fixed voice communications, wireless voice, data and video connectivity services, and studio video conferencing services. Provides infrastructure support, including the design, installation, and maintenance of special circuits/systems in support of life safety/ security systems and monitoring/control systems. Provides Collaboration and Messaging Services including services and tools for workforce to communicate and share information. Provides Application and Web-hosting including operation and management services required to support web and application hosting. Provides Desktop Management Support including management and support for end-user hardware and software services and tools. Includes Service Desk Support, Continuity of Operations, and Disaster Recovery support.
Justification: Each of the baseline services provided with this funding are priority zero requirements according to the FY14 Army Chief of Staff priorities. Not funding or reducing the programmed funding will directly impact communications and mission command at all levels on Kwajalein Atoll.
Memorandum of Agreement (MOA) between USASMDC/ARSTRAT and NETCOM: The 16 August 2013 signed MOA between USASMDC/ARSTRAT and NETCOM formally transfers baseline C4IM functional Areas of Responsibility (Base Communications Support, Information Assurance, and Automation) to NETCOM. This MOA defines the roles and responsibilities between USASMDC/NETCOM as well as transfers all USAKA Network Enterprise Center missions, functions, support functions, and programmed resources to support execution of the baseline C4IM Services. Above baseline services will remain an SMDC responsibility to program and support.
Recommendation: It is NETCOM's recommendation to transfer these assets within the RDT&E appropriation from RL02 to QOIM to maintain Management Decision Package (MDEP) integrity. Realigning this funding under QOIM will ensure that all assets supporting the delivery of baseline C4IM services are captured within the appropriate mission MDEP in accordance with the definition of QOIM, the Army C4IM Services Catalog Version 4.0, and DA PAM 25-1-1.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Civilian Pay (RTS)	-	3.600	3.786
Articles:	-	-	-
Description: Funding is provided for the following effort			
FY 2014 Plans: Provided government personnel support (salaries, training, and travel, GPC) to enable the management of the test and evaluation of major Army and DoD missile systems.			
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
Continues to provide government personnel support (salaries, training, and travel, GPC) to enable the management of the test and evaluation of major Army and DoD missile systems.			
Title: TDY/Training/Supplies - Military and Civilian	-	0.200	0.216
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2014 Plans:*** Provides government personnel support (training, and travel, GPC) to enable the management of the test and evaluation of major Army and DoD missile systems. ***FY 2015 Plans:*** Continues to provide government personnel support (training, and travel, GPC) to enable the management of the test and evaluation of major Army and DoD missile systems.			
Title: Outside Obligations/Other Government Agencies	-	4.600	4.648
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2014 Plans:*** Provides support to test and evaluation of major Army and DoD missile systems. ***FY 2015 Plans:*** Will continue to provide support to test and evaluation of major Army and DoD missile systems			
Title: Fiber Optic Cable (Kwajalein Cable System)	-	12.300	12.340
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2014 Plans:*** Provides funding for lease of the Kwajalein Cable System (KCS) fiber optic cable between Kwajalein Island and Guam, and for backup satellite ***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
Continues to provide funding for lease of the Kwajalein Cable System (KCS) fiber optic cable between Kwajalein Island and Guam, and for backup satellite			
Title: RTS Contractor Prime Pay (KRS)	-	37.800	12.604
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2014 Plans:*** Provides technical Operations and Maintenance (O&M) support (test planning, instrumentation operation s and maintenance, systems engineering, flight safety, launch ordnance, Kwajalein Mobile range Safety System (WORTHY, etc) to assure the capability of the Range to support test and space missions. ***FY 2015 Plans:*** Continues to provide technical Operations and Maintenance (O&M) support (test planning, instrumentation operation s and maintenance, systems engineering, flight safety, launch ordnance, Kwajalein Mobile range Safety System (WORTHY, etc) to assure the capability of the Range to support test and space missions.			
Title: Contractor Material	-	6.610	5.958
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2014 Plans:*** Provides critical non-labor materials to maintain critical range capabilities and prevent obsolescence in support of test operations. ***FY 2015 Plans:*** Will continue to provide critical non-labor materials to maintain critical range capabilities and prevent obsolescence in support of test operations.			
Title: FFRDC Contractor Pay (MIT/LL)	-	7.000	6.602
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2014 Plans:*** Provides technical advice to RTS leadership in support of Range operations, strategic planning, and technical execution of critical technology. ***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
Will continue to provide technical advice to RTS leadership in support of Range operations, strategic planning, and technical execution of critical technology.			
Title: Contractor Pay Meteorological	-	2.000	2.236
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2014 Plans:*** Provides support for sustained weather sensing capabilities, including weather reporting via radar data. This capability provides critical data to test planning and execution. ***FY 2015 Plans:*** Will continue to provide support for sustained weather sensing capabilities, including weather reporting via radar data. This capability provides critical data to test planning and execution.			
Title: Ground Transportation	-	1.300	0.940
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2014 Plans:*** Provides mission specific material and passenger transportation via air (Air Mobility Command) and sea (SDDC) between Kwajalein Atoll and CONUS. ***FY 2015 Plans:*** Continues to provide mission specific material and passenger transportation via air (Air Mobility Command) and sea (SDDC) between Kwajalein Atoll and CONUS			
Title: Mission Specific Environmental	-	0.300	0.310
Articles:	-	-	-
Description: Funding is provided for the following effort ***FY 2014 Plans:*** Provides the capability to assess and maintain the Range readiness and compliance with environmental requirements. ***FY 2015 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605301A / *ARMY KWAJALEIN ATOLL*	**Project (Number/Name)** DX2 / *Army Kwajalein Test Ranges and Mission Support*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Will continue to provide the capability to assess and maintain the Range readiness and compliance with environmental requirements.			
Title: USNS Worthy - Shipyard ***Description:*** Funding is provided for the following effort ***FY 2015 Plans:*** Will address obsolescence and maintenance requirements in support of upcoming test missions.	-	-	4.000
Title: Network Enterprise Technology Command (NETCOM) C4IM ***Description:*** Funding is provided for the following effort ***FY 2015 Plans:*** NETCOM - The Network Enterprise Technology Command (NETCOM) funds Department of Army civilian pay, manpower service contracts, supporting IT equipment, and associated costs specifically identified and measurable to plan, manage, coordinate, and execute Information Technology Services Management. Provides Command, Control, Communications, Computers, and Information Management (C4IM) services in accordance with the DA PAM 25-1-1 and the Army C4IM Services List. Provides Base Communications Support (Service 701), Visual Information (Service 702), Information Assurance (Service 703), and Automation (Service 700). Includes the delivery of services consisting of secure and non-secure fixed voice communications, wireless voice, data and video connectivity services, and studio video conferencing services. Provides infrastructure support, including the design, installation, and maintenance of special circuits/systems in support of life safety/security systems and monitoring/control systems. Provides Collaboration and Messaging Services including services and tools for workforce to communicate and share information. Provides Application and Web-hosting including operation and management services required to support web and application hosting. Provides Desktop Management Support including management and support for end-user hardware and software services and tools. Includes Service Desk Support, Continuity of Operations, and Disaster Recovery support. Justification: Each of the baseline services provided with this funding are priority zero requirements according to the FY14 Army Chief of Staff priorities. Not funding or reducing the programmed funding will directly impact communications and mission command at all levels on Kwajalein Atoll.	-	-	12.536
Accomplishments/Planned Programs Subtotals	-	75.710	66.176

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605301A / *ARMY KWAJALEIN ATOLL*	**Project (Number/Name)** DX2 / *Army Kwajalein Test Ranges and Mission Support*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605326A / *Concepts Experimentation 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**
Total Program Element	-	24.720	22.246	19.439	-	19.439	22.149	42.062	38.152	40.876	-	-
312: *Army/Joint Experimentation*	-	7.361	5.791	2.455	-	2.455	0.509	0.518	0.525	0.536	-	-
317: *Current Force Capability Gaps*	-	15.619	14.581	15.870	-	15.870	20.443	40.339	36.413	39.089	-	-
33B: *Soldier-Centered Analyses For Future Force*	-	1.740	1.874	1.114	-	1.114	1.197	1.205	1.214	1.251	-	-

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

Note

FY13 adjustments attributed to Congressional General Reductions (-41 thousand); SBIR/STTR transfers (-715 thousand); and Sequestration reductions (-2.426 million).
FY14 adjustments attributed to Congressional General Reductions (-12 thousand) and Congressional Directed Reductions (-14.9 million).
FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

Army Experimentation mission enables integrated examinations with Army Test and Evaluation Command (ATEC), Research, Development and Experimentation Command (RDECOM), Army battle laboratories, operational units, research labs materiels developers, industry and academia to collaborate in the development, refinement, and assessment of future force concepts. The intended outcome of this integrative effort is to develop concept capability plans that inform the Capabilities Integration Development System (CIDS) process and define future requirements, enabling identification and acquisition of critical Doctrine, Organization, Training, Materiel, Leader Development, Personnel and Facilities (DOTMLPF) capabilities for the future force to provide land power capabilities needed by Army commanders. Due to significant reductions in funding, beginning in FY15, Research, Development, Test, and Evaluation (RDT&E) funding will focus on Simulated Experiments (SIMEX) to integrate and assess Army Concepts, Force Designs, and Capabilities. Experimentation enables enhanced situational awareness, planning requirements, employment and management of accelerated decision cycles in a network-enabled force, and training requirements of new and emerging technologies.

ARCIC, Accelerated Capabilities Division (ACD) (formerly Asymmetric Warfare Division) develops immediate capability solutions in support of the Chief of Staff of the Army (CSA) prioritized Current Force capability gaps (i.e. Force Protection, Networked Battle Command, Logistics and Medical in Counterinsurgency Operations (COIN) and Soldier Protection). ACD conducts Concept of Operations (CONOPS) and DOTMLPF analysis required to ensure capability gap candidate solutions are properly integrated prior to being equipped to deployed forces. Supports pre-deployment and in-theater assessments to ensure candidate solution meet identified requirements, support tactics, techniques and procedures development for use by deployed forces, and ensure equipped systems provide the necessary capability to fill an identified gap. These assessments support determination of a path forward for equipped system by identifying them as a potential Program of Record (POR) or sustain in theater. CONOPS, DOTMLPF-Cost analysis and assessment assist deployed forces by ensuring they are able to properly employ equipped systems and assist senior Army leadership in determining how best to resource solution to high priority capability gaps.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*		R-1 Program Element (Number/Name) PE 0605326A / *Concepts Experimentation Program*			
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	27.902	37.158	53.324	-	53.324
Current President's Budget	24.720	22.246	19.439	-	19.439
Total Adjustments	-3.182	-14.912	-33.885	-	-33.885
• Congressional General Reductions	-0.041	-0.012			
• Congressional Directed Reductions	-	-14.900			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.715	-			
• Adjustments to Budget Years	-	-	-33.885	-	-33.885
• Other Adjustments	-2.426	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605326A / *Concepts Experimentation Program*	Project (Number/Name) 312 / *Army/Joint Experimentation*	

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
312: *Army/Joint Experimentation*	-	7.361	5.791	2.455	-	2.455	0.509	0.518	0.525	0.536	-	-
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

Army Experimentation is the conduct of experiments involving Soldiers and Leaders within live, virtual, and constructive environments of exploring concepts, capability requirements and solutions across Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, and Facilities (DOTMLPF) domains in order to learn and mitigate risk for current and future forces. Experiments inform Army future concepts and assess high-risk conceptual assumptions in order to focus required capabilities and represent the user's requirements in the future Army. TRADOC's partnership with ASA(ALT) in connecting Soldiers to the ideas and capabilities earlier rather than later, provides essential user feedback and assists the acquisition community with informing the Army's investment portfolio and decreasing the number of engineering design changes. Army experiments use the combined resources of Army battle laboratories, operational units, research labs, materiel developers, industry and academia to collaborate in the development, refinements, and assessment of future force concepts - to inform capability developments and validate concepts for current and future force. Due to significant reduction in funding, beginning in FY15, Research, Development, Test and Evaluation (RDT&E) funding will focus on Simulated Experiments (SIMEX) to integrate and assess Army Concepts, Force Designs, and Capabilities. In the near-term, Army experimentation will focus on Prevent, Shape, and Win as foundational elements for this campaign, assessed across all joint campaign phases, with Army level issues across the breadth of a champaign that highlights integration of Army 2020 initiatives.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Experimentation - World Class Blue Force (WCBLUFOR) Analysts	3.524	3.400	-
Articles:	-	-	-
Description: Experimentation with future concepts requires commanders who understand those concepts, but military personnel are generally proficient in current doctrine, not future Army concepts. The WCBLUFOR bridge this gap with experienced commanders who are versed in future Army concepts. These subject matter experts provide technical and tactical expertise, play senior blue roles in experiments, develop orders, train and mentor staff, and provide analytic expertise. Requisite skill sets that are not available on our TDAs.			
FY 2013 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605326A / *Concepts Experimentation Program*	**Project (Number/Name)** 312 / *Army/Joint Experimentation*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
WCBLUFOR assisted and mentored planning, execution and evaluation of experiments supporting Army capstone, operational and functional concepts to provide credible incorporation of concepts into experiments. WCBLUFOR also supported analysis and coordination for the Army's Campaign of Learning - both what we have learned and what remains to be learned. ***FY 2014 Plans:*** WCBLUFOR assists and mentors planning, execution and evaluation of experiments supporting Army capstone, operational and functional concepts to provide credible incorporation of concepts into experiments. WCBLUFOR also supports analysis and coordination for the Army's Campaign of Learning - both what we have learned and what remains to be learned.			
Title: Experimentation - Maneuver Brigade Experiments ***Articles:*** ***Description:*** Perform maneuver brigade experiments that will address 1) integration of Army in 2020 initiatives; 2) development of future Infantry Bridgade Combat Team (IBCT), Stryker Bridgade Combat Team (SBCT), and Airborne Brigade Combat Team (ABCT) capability Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities (DOTMLPF) requirements and DOTMLPF solutions; and 3) acceleration and integration of capabilities for current force Brigade Combat Teams (BCTs). ***FY 2014 Plans:*** Conduct experiments to address learning demands supporting assigned Army Warfighting Challenges (AWFC). Results will inform the Integrated Learning Plan for each AWFC; specifically supporting concepts and Formation Based Analysis.	- -	1.200 -	- -
Title: Experimentation - High-Fidelity Live-Virtual-Constructive Experiments ***Articles:*** ***Description:*** Experiments address concept and capability developments including integration of capabilities for all BCT types; development of future Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities (DOTMLPF) requirements and solutions; and acceleration and integration of capabilities for current force Brigade Combat Teams (BCTs) and above brigade. ***FY 2013 Accomplishments:*** Experiments continued to address learning demands supporting critical Army Warfighting Challenges (AWFC); capstone, operational and concepts; and Formation Based Analysis. Experiments supported learning in order to mitigate risk to Soldiers and developments providing tangible insurance against acquisition failure as well as a means to win the first battle of the next war. ***FY 2014 Plans:***	3.837 -	1.191 -	2.455 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605326A / *Concepts Experimentation Program*	**Project (Number/Name)** 312 / *Army/Joint Experimentation*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Experiments continue to address learning demands supporting critical Army Warfighting Challenges (AWFC); capstone, operational and concepts; and Formation Based Analysis. Experiments support learning in order to mitigate risk to Soldiers and developments providing tangible insurance against acquisition failure as well as a means to win the first battle of the next war. ***FY 2015 Plans:*** Simulated Experiments (SIMEX) will become the focus to integrate and assess Army Concepts, Force Designs, and Capabilities.			
Accomplishments/Planned Programs Subtotals	7.361	5.791	2.455

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605326A / *Concepts Experimentation Program*	Project (Number/Name) 317 / *Current Force Capability Gaps*	

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
317: *Current Force Capability Gaps*	-	15.619	14.581	15.870	-	15.870	20.443	40.339	36.413	39.089	-	-
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

Training and Doctrine Command (TRADOC) lead for Accelerated Capability Developments (ACD) to address current critical operational needs. Enable development and deployment/employment of accelerated capabilities (both materiel and non-materiel) to the current force. Serve as TRADOC central coordinating organization for Headquarters Department of the Army (HQDA) staff support requirements related to accelerated capabilities developments. Integrate ACD activities to ensure unity and priority of effort and synchronization and optimization of resources. Integrate accelerated capabilities development activities between proponent force modernization domains to include Joint/Service coordination. Provide specialized capabilities development and integration at TRADOC Centers of Excellence.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Counter Improvised Explosive Device Adapt the Force (AtF) (formerly Improvised Explosive Device (IED) Integrated Concept Development Team (ICDT))	3.447	0.800	1.000
Articles:	-	-	-
Description: The IED ICDT is responsible for conducting Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, and Facilities (DOTMLPF) assessments; performs gap analyses identified by HQDA and Joint Urgent Operational Needs Statement (JUONS).			
FY 2013 Accomplishments: Lead the Adapt the Force efforts under Army Counter-IED (CIED) Strategy supporting development and maintenance of AtF CIED database and resolution of DOTMLPF issues associated with integration of various CIED initiatives. Was responsible for coordination and faciliating IED-Defeat Council of Colonels and General Officer Steering Committees producing guidance and directives for Army-wide IED-Defeat Training initiative and systems. Supported TRADOC CoEs with CIED SMEs and products for all CIED Lines of Effort.			
FY 2014 Plans: Lead the Adapt the Force efforts under Army Counter-IED (CIED) Strategy supporting development and maintenance of AtF CIED database and resolution of DOTMLPF issues associated with integration of various CIED initiatives. Responsible for coordination			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605326A / *Concepts Experimentation Program*	**Project (Number/Name)** 317 / *Current Force Capability Gaps*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
and facilitating IED-Defeat Council of Colonels and General Officer Steering Committees producing guidance and directives for Army-wide IED-Defeat Training initiative and systems. Support TRADOC CoEs with CIED SMEs and products for all CIED Lines of Effort. ***FY 2015 Plans:*** Will lead the Adapt the Force efforts under Army Counter-IED (CIED) Strategy supporting development and maintenance of AtF CIED database and resolution of DOTMLPF issues associated with integration of various CIED initiatives. Will be responsible for coordination and facilitating IED-Defeat Council of Colonels and General Officer Steering Committees producing guidance and directives for Army-wide IED-Defeat Training initiative and systems. Will support TRADOC CoEs with CIED SMEs and products for all CIED Lines of Effort.			
Title: Aerial Sensor Portfolio	0.280	-	-
Articles:	-	-	-
Description: Funding is needed to support the Aerial Sensor Portolio. ***FY 2013 Accomplishments:*** Aerial Sensor Portfolio (excluding Task Force Observe, Detect, Indentify, and Neutralize - TF ODIN systems) supported the accelerated developments of directed, ONS-based, quick reaction aerial sensor capabilities (Desert Owl I and II, Radiant Falcon, Copperhead II, Black Kite). Supported improved Aerial Intelligence, Surveillance, and Reconnaissance (ISR) Information System processing. Consisted of aerial sensor and command control systems organized to defeat assigned threats in current operational environments by integrating collection and analysis of intelligence data, shorten sensor to responder timelines, and facilitate planning, sensor cueing, data collection, and communications.			
Title: Communications and Networks Portfolio	0.535	-	-
Articles:	-	-	-
Description: Funding is needed for Communications and Networks Portfolio. ***FY 2013 Accomplishments:*** Communications and Network Portfolio capabilities include Intelligence, Surveillance, and Reconnaissance (ISR) Net, Trojan Swarm, Heterogeneous Aerial Reconnaissance Team (HART), Enroute Mission Planning and Rehearsal System (EMPRS), Army Cellular Capability Development and Connecting Soldiers to Digital Applications (CSDA). Task was to support development, deployment, and assessment of communications and networking of these and other directed systems to provide the Warfighter a network connectivity with mission command applications. Network provides single user interface, including aerial tier, capable of assessing all required data applications, and service via the common operating environment. Network supported distributed			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605326A / *Concepts Experimentation Program*	**Project (Number/Name)** 317 / *Current Force Capability Gaps*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
and small unit operations beyond line-of-sight with focus on Company and below Brigade and Battalion mission command on-the-move capabilities. Additionally network reduced dependence on satellite communications when connectivity is lost.			
Title: Operational Energy (formerly Demo/Assess Operational Power and Energy) ***Articles:*** ***Description:*** Funding is needed for Operational Power and Energy ***FY 2013 Accomplishments:*** TRADOC Accelerated Capability Developments supported TRADOC Power and Energy staff management and integration responsibilities. Supported proponents with their responsibilities relative to doctrine, organization, training, material, leader development and education, personnel, and facilities plus related matters. Leveraged Proponent input to Joint Capabilities Integration and Development System, Science and Technology, Concept Development, Capability Development for Rapid Transition, and Capability Gap Analysis Army. ***FY 2014 Plans:*** Continue acceleration of Operational Energy initiative for remote Combat Outposts and Soldier Power initiatives. Operational Energy provides the warfighter with increased levels of agility, flexibility, and interoperability when operating in the expeditionary environment. Operational energy solutions approach extend combat and tactical system's mission endurance and resilence, ensure uninterrupted and optimal energy to systems within the mission command network, and mitigate force risk by reducing energy demand. Phase two of multi-phased approached supports development of integrated operational energy solutions will require a system-of-systems engineering approach. This approach ensures that designs identify and address effects on the force when delivering solutions provide necessary employment guidance and assess impacts on operational effectiveness. ***FY 2015 Plans:*** Will continue acceleration of Operational Energy initiative for remote Combat Outposts and Soldier Power initiatives. Operational Energy will provide the warfighter with increased levels of agility, flexibility, and interoperability when operating in the expeditionary environment. Operational energy solutions will approach extend combat and tactical systems' mission endurance and resilence, ensure uninterrupted and optimal energy to systems within the mission command network, and mitigate force risk by reducing energy demand. Phase two of multi-phased approached will support development of integrated operational energy solutions will require a system-of-systems engineering approach. This approach will ensure that designs identify and address effects on the force when delivering solutions provide necessary employment guidance and assess impacts on operational effectiveness.	1.846 -	3.000 -	1.000 -
Title: Integrated Protection Initiative (IPI) ***Articles:*** ***Description:*** Funds are needed for Integrated Protection Initiative.	2.468 -	- -	- -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605326A / *Concepts Experimentation Program*	**Project (Number/Name)** 317 / *Current Force Capability Gaps*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: TRADOC Accelerated Capability Developments initiative provided integration and assessment support across DOTMLPF domains to equip, train, and deploy capability support for OEF problem of isolated maneuver elements at Command Outposts (COPs)/ Forward Operating Bases (FOBs) which have difficulty locating ground targets and lack timely response to engage these targets in organic, lethal, effects while minimizing collateral damage and exposure of Soldiers to unnecessary risk.			
Title: Army Expeditionary Warrior Experiment (AEWE) (formerly Prototype Solution Demonstrations) ***Articles:*** ***Description:*** AEWE addresses live, prototype experimentation requirements. ***FY 2013 Accomplishments:*** AEWE addresses live, prototype experimentation requirements with a primary focus on the Soldier and Small Unit, examining concepts and capabilities for the current and future force. AEWE provided Capability Developers, the S&T community and industry a repeatable, credible, rigorous, and validated operational experiment venue to support DOTMLPF concepts and materiel development efforts. FY13 focussed on Spiral H and J support. ***FY 2014 Plans:*** This campaign of experiments is critical at the Maneuver Center as we conduct research, development, and experimentation to ensure our future Maneuver Force is prepared and equipped to fight and win in a complex operating environment. Through doctrine development, leveraging emerging technology and partnering with industry, the Maneuver Center in an advocate for the Maneuver Force. FY14 campaign of experiments, Spiral I, is focused on technologies to support five primary study areas: Cellular Communications, Robotics, Solider Load and Protection, Power Solutions and Resupply. ***FY 2015 Plans:*** This campaign of experiments will be critical at the Maneuver Center as we conduct research, development, and experimentation to ensure our future Maneuver Force is prepared and equipped to fight and win in a complex operating environment. Through doctrine development, leveraging emerging technology and partnering with industry, the Maneuver Center in an advocate for the Maneuver Force. FY15 campaign of experiments, Spiral J, will be focused on technologies to support five primary study areas: Cellular Communications, Robotics, Solider Load and Protection, Power Solutions and Resupply.	1.200 -	0.760 -	1.000 -
Title: Capability Packages (CP) ***Articles:*** ***Description:*** Capability Packages are a key element of the Army's transition to a brigade combat team (BCT) modernization strategy.	0.800 -	- -	- -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605326A / *Concepts Experimentation Program*	**Project (Number/Name)** 317 / *Current Force Capability Gaps*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Capability Packages are the key element of the Army's transition to a brigade combat team (BCT) modernization strategy to build a versatile mix of mobile, networked and combat effective BCTs. Following the Defense Secretary's guidance to accelerate proven solutions, these packages upgrade our units every few years so the best capabilities available at that time go to the Soldiers who need them most, based on the continually evolving combat environment. These bundles of capabilities include doctrine, organization, and training in conjunction with materiel to fill the highest priority shortfalls and mitigate risk for Soldiers. The incremental deliveries are build upon one another as the Army continually adapts and modernizes.			
Title: Robotics ***Articles:*** ***Description:*** Testing and demonstration of increased unmanned ground vehicle capabilities. ***FY 2013 Accomplishments:*** Tested and demonstrated increasingly capable unmanned ground vehicles in four separate categories (soldier transportable, self transportable, vehicle transportable, and applique) through venues such as the Robotics Rodeo, Mounted Maneuver Battle Lab (MMBL), and Brigade Modernization Command (BMC) events. Successful robotic systems was considered for in theater usage and DOTMLPF assessments for transition decisions. ***FY 2014 Plans:*** Support the Army robotics Campaign Plan development, and resolution of DOTMLPF issues associated with integration of various Robotics initiatives. Responsible for participation as member of Joint Ground Robotics Integration Team meetings and in producing guidance and directives for Army-wide Robotic SMEs and products for applicable initiative being resourced and assessed. Includes initiatives directly related to robotics such as operational control units (OCUs) like Tactical Robotic Controller and systems linked to the controllers. ***FY 2015 Plans:*** Will support the Army robotics Campaign Plan development, and resolution of DOTMLPF issues associated with integration of various Robotics initiatives. Will be responsible for participation as member of Joint Ground Robotics Integration Team meetings and in producing guidance and directives for Army-wide Robotic SMEs and products for applicable initiative being resourced and assessed. Will include initiatives directly related to robotics such as operational control units (OCUs) like Tactical Robotic Controller and systems linked to the controllers.	1.325 -	2.650 -	1.000 -
Title: Tunnel Detection (TD) ***Articles:*** ***Description:*** Test and demonstration of sensor technology.	1.175 -	- -	1.000 -

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
FY 2013 Accomplishments: Tested and demonstrated a suite of sensor technology systems capable of detecting, exploiting, and remediating, clandestine purpose-built tunnels. ***FY 2015 Plans:*** Will test and demonstrate a suite of sensor technology systems capable of detecting, exploiting, and remediating, clandestine purpose-built tunnels.			
Title: Exploitation	1.400	-	1.000
Articles:	-	-	-
Description: Document and Media Exploitation (DOMEX) is the collection and exploitation of captured equipment, documents, and media. ***FY 2013 Accomplishments:*** Document and Media Exploitation (DOMEX) Tactical, operational, and strategic leaders are enabled with accurate information about enemy forces through the rapid and accurate extraction, exploitation, and analysis of captured enemy documents, media, and materiel. Tactically, DOMEX is the collection and exploitation of captured equipment, documents, and media to generate actionable intelligence. The DOMEX is a critical part of target exploitation, especially as it relates to actions on the objective during site exploitation activities. Efforts in exploitation also support Special Operations Command (SOCOM) with DOTMLPF assessments of classified solutions supporting technical reconnaissance, and information operations associated with exploitation. ***FY 2015 Plans:*** Document and Media Exploitation (DOMEX) Tactical, operational, and strategic leaders are enabled with accurate information about enemy forces through the rapid and accurate extraction, exploitation, and analysis of captured enemy documents, media, and materiel. Tactically, DOMEX is the collection and exploitation of captured equipment, documents, and media to generate actionable intelligence. The DOMEX is a critical part of target exploitation, especially as it relates to actions on the objective during site exploitation activities. Efforts in exploitation also support Special Operations Command (SOCOM) with DOTMLPF assessments of classified solutions supporting technical reconnaissance, and information operations associated with exploitation.			
Title: Non Standard Training Gap Initiative (formerly Non-Standard Capability Training Gaps)	1.143	3.129	1.170
Articles:	-	-	-
Description: Training for accelerated capabilites is accomplished primarily through mandated New Equipment Training (NET) with no process for follow on efforts. This incongruity is detrimental to effective and consistent training for the force. ***FY 2013 Accomplishments:***			

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
The Army has not established an approved mechanism to train non-standard equipment within operational formations or CoEs. This deficiency compels training independent of evaluated/verifiable methods. There is minimal assistance in the development of Training Support Packages (TSP) and varying levels of oversight to validate if the maximum benefit of the training and capability has been attained. This incongruity is detrimental to effective and consisitent training for the force. Training for accelerated capabilities is accomplished primary through mandated New Equipment Training (NET) with no process for follow on efforts. Supported TRADOC CoEs in development of Pilot Training Programs to establish process for the integration on non-standard capability training. ***FY 2014 Plans:*** Lead the Non Standard Equipment (NSE) training process initiative supporting the development, execution, evaluation, and maintenance of the 2nd pilot program to develop a standardized and effective NSE training process for deployed units. ARCIC Accelerated Capabilities Division (ACD) is responsible for facilitating and coordinating stakeholders in the execution, evaluation, and maintenance of Pilot Program 2 on the NSE training process. ***FY 2015 Plans:*** Will lead the Non Standard Equipment (NSE) training process initiative supporting the development, execution, evaluation, and maintenance of the 2nd pilot program to develop a standardized and effective NSE training process for deployed units. ARCIC Accelerated Capabilities Division (ACD) will be responsible for facilitating and coordinating stakeholders in the execution, evaluation, and maintenance of Pilot Program 2 on the NSE training process.			
Title: Tower Hawk ***Articles:*** ***Description:*** Provides support to development, integration, and equiping of solutions to the field for integrated base defense while providing long range pinpoint offensive action. ***FY 2014 Plans:*** Provides support to development, integration, and equiping of solutions to the field for integrated base defense while providing long range pinpoint offensive action against insurgents identified in hostile acts. ACD provides the integration efforts across DOTMLPF as part of coordination and facilitation efforts between Project Offices, TRADOC CoEs, and test agencies.	- -	2.500 -	- -
Title: Small Unit Learder Situational Awareness Tool (SULSAT) ***Articles:*** ***Description:*** Supports the Army Robotics Campaign Plan initiatives by addressing DOTMLPF issues associated with integration of emerging Robotics initiatives. ***FY 2014 Plans:***	- -	1.002 -	- -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605326A / *Concepts Experimentation Program*	**Project (Number/Name)** 317 / *Current Force Capability Gaps*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Provides support to the Army Robotics Campaign Plan initiatives by addressing DOTMLPF issues associated with integration of emerging Robotics initiatives such as Small Unit Leader Situational Awareness Tools (SULSAT). This requires cutting-edge technology in multiple fields, including high speed graphics computing, 3-D imaging, virtual reality, and visualization. This capability will be able to visualize internal and external structures of buildings as well as potential threats, and then disseminate that information to soldiers and small-unit leaders.			
Title: Black Kite ***Articles:*** ***Description:*** Micro Air Vehicle (MAV) with increased sensor capability in support of Army Counter-IED (CIED) Strategy. ***FY 2014 Plans:*** Micro Air Vehicle (MAV) with increased sensor capability in support of Army Counter-IED (CIED) Strategy associated with integration of various (CIED initiatives. Supports Army-wide IED-Defeat Training initiatives and systems. Coordinated and integrated with TRADOC CoEs with CIED SMEs and products for all CIED Line of Efforts.	- -	0.740 -	- -
Title: Contractor Year Equivalent (CME) Support to TRADOC Capability Development and Integration Directorates (CDIDs) ***Description:*** Provides CMEs to CDIDs across TRADOC to develop and integrate capabilities. ***FY 2015 Plans:*** Will provide approximately 45 CMEs to CDIDs across TRADOC to develop and integrate the capabilities for which the ASA(ALT) community is developing and fielding materiel solutions. FY14 would have been the first year of incremental funding until 100% of the requirement is funded in FY 2017 and beyond.	-	-	7.700
Title: Squad Dismounted Non-Network Enabled ***Description:*** Provides integration and assessment support across DOTMLPF. ***FY 2015 Plans:*** TRADOC Accelerated Capability Developments initiative provides integration and assessment support across DOTMLPF domains to equip, train, and deploy capability support for OEF problem of isolated maneuver elements at Command Outposts (COPs)/ Forward Operating Bases (FOBs) which have difficulty locating ground targets and lack timely response to engage these targets in organic, lethal, effects while minimizing collateral damage and exposure of Soldiers to unnecessary risk.	-	-	1.000
Accomplishments/Planned Programs Subtotals	15.619	14.581	15.870

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605326A / *Concepts Experimentation Program*	**Project (Number/Name)** 317 / *Current Force Capability Gaps*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605326A / *Concepts Experimentation Program*	Project (Number/Name) 33B / *Soldier-Centered Analyses For Future Force*	

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
33B: *Soldier-Centered Analyses For Future Force*	-	1.740	1.874	1.114	-	1.114	1.197	1.205	1.214	1.251	-	-
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 provide early application of human performance and human figure modeling tools in the development of Soldier-focused requirements to shape technology for Future Force development. Design analyses, constructive simulations and Soldier-in-the-loop assessments will ensure that manpower requirements and workload and skill demands are considered to avoid information and physical task overloads, and take optimum advantage of aptitudes, individual and collective training, and numbers of Soldiers for an affordable Future Force. The cited work is consistent with the Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, and the Defense Technology Area Plan (DTAP). Work in this project is performed by the Army Research Laboratory (ARL).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Manpower and Personnel Integration (MANPRINT)	1.740	1.874	1.114
Articles:	-	-	-
Description: Provide dedicated modeling and analysis cell for early and accurate MANPRINT estimates to Army Materiel Command (AMC), Research, Development, and Engineering Command (RDECOM) and its Research, Development, and Engineering Centers (RDECs), TRADOC Centers, Schools and Centers of Excellence (CoEs), Army Test and Evaluation Command (ATEC) and other service laboratories.			
FY 2013 Accomplishments: Developed analysis methodology to link Human Systems Integratino (HSI) risk mitigation (i.e. specific system design changes) to manpower and health care cost avoidance.			
FY 2014 Plans: Develop and demonstrate model based links between Systems Engineering (SE) and MANPRINT tools and methods to leverage common data elements and resources to better inform acquisition tradeoff decisions.Develop analysis methodology to link Human Systems Integratino (HSI) risk mitigation (i.e. specific system design changes) to manpower and health care cost avoidance.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605326A / *Concepts Experimentation Program*	**Project (Number/Name)** 33B / *Soldier-Centered Analyses For Future Force*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Will develop analysis methodologies to quantitatively predict (in dollars and/or mission success) the effect of manpower, personnel, and training issues in system acquisition to inform optimization of Soldier-system performance and affordability.			
Accomplishments/Planned Programs Subtotals	1.740	1.874	1.114

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605502A / *SMALL BUSINESS INNOVATIVE RESEARCH*							
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	-	169.555	-	-	-	-	-	-	-	-	-	-
861: *SMALL BUS TECH - AMC*	-	20.229	-	-	-	-	-	-	-	-	-	-
M40: *SMALL BUSINESS-AMC*	-	149.326	-	-	-	-	-	-	-	-	-	-

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

Note

FY13 adjustments attributed to internal Army reprogrammings (169.555 million) to support SBIR.

A. Mission Description and Budget Item Justification

There is no FY15 funding. This program is for SBIR only and only shows prior years.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	-	-	-	-	-
Current President's Budget	169.555	-	-	-	-
Total Adjustments	169.555	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	169.555	-			
• SBIR/STTR Transfer	-	-			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605502A / *SMALL BUSINESS INNOVATIVE RESEARCH*	Project (Number/Name) 861 / *SMALL BUS TECH - AMC*	

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
861: *SMALL BUS TECH - AMC*	-	20.229	-	-	-	-	-	-	-	-	-	-
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 Small Business Innovation Research (or SBIR) program is a United States Government program, coordinated by the Small Business Administration, in which 2.6% of the total extramural research budgets of all federal agencies with extramural research budgets in excess of $100 million are reserved for contracts or grants to small businesses. A similar program, the Small Business Technology Transfer Program (STTR), uses a similar approach to the SBIR program to expand public/private sector partnerships between small businesses and nonprofit U.S. research institutions, and is funded at present at .35% of the relevant agencies' extramural research budgets.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: SBIR	20.229	-	-
Articles:	-	-	-
Description: SBIR			
FY 2013 Accomplishments: SBIR			
Accomplishments/Planned Programs Subtotals	20.229	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605502A / *SMALL BUSINESS INNOVATIVE RESEARCH*	Project (Number/Name) M40 / *SMALL BUSINESS-AMC*	

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
M40: *SMALL BUSINESS-AMC*	-	149.326	-	-	-	-	-	-	-	-	-	-
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 Small Business Innovation Research (or SBIR) program is a United States Government program, coordinated by the Small Business Administration, in which 2.6% of the total extramural research budgets of all federal agencies with extramural research budgets in excess of $100 million are reserved for contracts or grants to small businesses. A similar program, the Small Business Technology Transfer Program (STTR), uses a similar approach to the SBIR program to expand public/private sector partnerships between small businesses and nonprofit U.S. research institutions, and is funded at present at .35% of the relevant agencies' extramural research budgets.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Small Business - AMC	149.326	-	-
Articles:	-	-	-
Description: funds to support Small Business - AMC			
FY 2013 Accomplishments: funds to support Small Business - AMC			
Accomplishments/Planned Programs Subtotals	149.326	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605601A *I ARMY TEST RANGES AND FACILITIES*							
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	-	334.087	340.477	275.025	-	275.025	269.802	233.665	270.598	280.803	-	-
F30: *Army Test Ranges & Facilities*	-	334.087	340.477	275.025	-	275.025	269.802	233.665	270.598	280.803	-	-

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

Note

FY13 adjustments attributed to Congressional General Reductions (-791 thousand); SBIR/STTR transfers (-5.658 million); and Sequestration reductions (-29.364 million).
FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

This project provides the institutional funding required to operate test activities, in accordance with Section 232 of the FY2003 National Defense Authorization Act (NDAA), required by Department of Defense (DOD) Program Executive Officers, Program and Product Managers, and Research, Development, and Engineering Centers. Resources provided by this project operate seven elements of the DOD Major Range and Test Facility Base (MRTFB): White Sands Test Center (WSTC),White Sands Missile Range, New Mexico; High Energy Laser System Test Facility (HELSTF), White Sands Test Center, White Sands Missile Range, New Mexico; Aberdeen Test Center (ATC), Aberdeen Proving Ground, Maryland; Electronic Proving Ground (EPG), Fort Huachuca, Arizona; and Yuma Test Center (YTC), Yuma Proving Ground, Arizona, Cold Regions Test Center (CRTC) Fort Greely, Alaska and Tropic Regions Test Center (TRTC) at various locations. This project also funds the Army's test capability at Redstone Test Center (RTC), Redstone Arsenal, Alabama.
This project finances the overhead (institutional) test operating cost not appropriately billed to test customers, recurring test infrastructure/capability sustainment requirements, replacement of test equipment, test operating procedures, and test revitalization/upgrade projects to maintain current testing capabilities and improvements to safety, environmental protection, efficiency of test operations, and technological advances. The test capabilities at these test ranges have been uniquely established, are in place to support test and evaluation (T&E) requirements of funded weapons programs, and are required to assure technical performance, adherence to safety requirements, reliability, logistics supportability, Title 10 Live Fire Test and Evaluation, transportability, environmental effects, electromagnetic effects, and quality of materiel in development and in production.
In accordance with the FY03 NDAA, this project funds the indirect test costs associated with the rapid testing of systems and equipment needed in support of the Overseas Contingency Operations (OCO), such as individual soldier protection equipment and up-armoring the Army's wheeled vehicle fleet. This project sustains the test & evaluation capability required to support Army as well as Joint Service or Other Service systems, materiel, and technologies. Types of systems scheduled for testing include; Aircraft, Air Delivery, Unmanned Aerial Systems, Unmanned Ground Vehicles, Air and Missile Defense Systems, Engineering Equipment, Direct fire, Indirect fire, Nonlethal weapons, Ammunition, Automotive Systems, Intelligence Surveillance and Reconnaissance, Ground Soldier System, Missiles, Rockets, Directed Energy Weapons, Network Centric and Command, Control, and Communication.
Specific systems supported in FY14 with continued support in FY15 include: Network Integration Evaluations (NIE), personnel protective equipment (including Body Armor), up-armoring vehicle ballistic protection on route clearance vehicles, Family of Medium Tactical Vehicles Long Term Armor Strategy (FMTV LTAS), and Joint

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 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605601A *I ARMY TEST RANGES AND FACILITIES*

Light Tactical Vehicle (JLTV); Stryker upgrades; armor gun shields for tactical vehicles; reactive and active armor; Guided Multiple Launch Rocket System (GMLRS) Unitary Rocket; Counter Remote Control IED (RCIED) Electronic Warfare (CREW); Warfighter Information Network Tactical (WIN-T); Distributed Common Ground System - Army (DCGS-A); Aviation Transformation (AH-64 Block III); aviation protection systems (Common Missile Warning System (CMWS) and Common Infrared Countermeasure (CIRCM), missile defense (PAC-3), Terminal High Altitude Area Defense (THAAD)); Unmanned Aerial Systems (Tactical Unmanned Aerial Systems, Long Endurance Multi-INT Vehicle (LEMV, Telluride, Raven)); Unmanned Ground Vehicles, Grey Eagle, Kiowa Warrior Upgrades, CMWS Hostile Fire Indication, Excalibur, Green Ammo, Nett Warrior, Joint Tactical Radio System (JTRS), Joint Battle Command-Platform (JBC-P), Aircraft Hostile Fire Detection System (HFDS), Paladin Integrated Management (PIM), and Longbow Hellfire Modular Missile System (LBHMMS)).
Direct costs are borne by materiel developers in accordance with DoD Directive 3200.11 and DOD Financial Management Regulation 7000.14R.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	369.900	340.659	325.178	-	325.178
Current President's Budget	334.087	340.477	275.025	-	275.025
Total Adjustments	-35.813	-0.182	-50.153	-	-50.153
• Congressional General Reductions	-0.791	-0.182			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-5.658	-			
• Adjustments to Budget Years	-	-	-50.153	-	-50.153
• Other Adjustments	-29.364	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605601A / *ARMY TEST RANGES AND FACILITIES*				Project (Number/Name) F30 / *Army Test Ranges & Facilities*			
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**
F30: *Army Test Ranges & Facilities*	-	334.087	340.477	275.025	-	275.025	269.802	233.665	270.598	280.803	-	-
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 the institutional funding required to operate test activities, in accordance with Section 232 of the FY2003 National Defense Authorization Act (NDAA), required by Department of Defense (DOD) Program Executive Officers, Program and Product Managers, and Research, Development, and Engineering Centers. Resources provided by this project operate seven elements of the DOD Major Range and Test Facility Base (MRTFB): White Sands Test Center (WSTC),White Sands Missile Range, New Mexico; High Energy Laser System Test Facility (HELSTF), White Sands Test Center, White Sands Missile Range, New Mexico; Aberdeen Test Center (ATC), Aberdeen Proving Ground, Maryland; Electronic Proving Ground (EPG), Fort Huachuca, Arizona; and Yuma Test Center (YTC), Yuma Proving Ground, Arizona, Cold Regions Test Center (CRTC) Fort Greely, Alaska and Tropic Regions Test Center (TRTC) at various locations. This project also funds the Army's test capability at Redstone Test Center (RTC), Redstone Arsenal, Alabama.

This project finances the overhead (institutional) test operating cost not appropriately billed to test customers, recurring test infrastructure/capability sustainment requirements, replacement of test equipment, test operating procedures, and test revitalization/upgrade projects to maintain current testing capabilities and improvements to safety, environmental protection, efficiency of test operations, and technological advances. The test capabilities at these test ranges have been uniquely established, are in place to support test and evaluation (T&E) requirements of funded weapons programs, and are required to assure technical performance, adherence to safety requirements, reliability, logistics supportability, Title 10 Live Fire Test and Evaluation, transportability, environmental effects, electromagnetic effects, and quality of materiel in development and in production.

In accordance with the FY03 NDAA, this project funds the indirect test costs associated with the rapid testing of systems and equipment needed in support of the Overseas Contingency Operations (OCO), such as individual soldier protection equipment and up-armoring the Army's wheeled vehicle fleet. This project sustains the test & evaluation capability required to support Army as well as Joint Service or Other Service systems, materiel, and technologies. Types of systems scheduled for testing include; Aircraft, Air Delivery, Unmanned Aerial Systems, Unmanned Ground Vehicles, Air and Missile Defense Systems, Engineering Equipment, Direct fire, Indirect fire, Nonlethal weapons, Ammunition, Automotive Systems, Intelligence Surveillance and Reconnaissance, Ground Soldier System, Missiles, Rockets, Directed Energy Weapons, Network Centric and Command, Control, and Communication.

Specific systems supported in FY14 with continued support in FY15 include: Network Integration Evaluations (NIE), personnel protective equipment (including Body Armor), up-armoring vehicle ballistic protection on route clearance vehicles, Family of Medium Tactical Vehicles Long Term Armor Strategy (FMTV LTAS), and Joint Light Tactical Vehicle (JLTV); Stryker upgrades; armor gun shields for tactical vehicles; reactive and active armor; Guided Multiple Launch Rocket System (GMLRS) Unitary Rocket; Counter Remote Control IED (RCIED) Electronic Warfare (CREW); Warfighter Information Network Tactical (WIN-T); Distributed Common Ground System - Army (DCGS-A); Aviation Transformation (AH-64 Block III); aviation protection systems (Common Missile Warning System (CMWS) and Common Infrared Countermeasure (CIRCM), missile defense (PAC-3), Terminal High Altitude Area Defense (THAAD)); Unmanned Aerial Systems (Tactical Unmanned Aerial Systems, Long Endurance Multi-INT Vehicle (LEMV, Telluride, Raven)); Unmanned Ground Vehicles, Grey Eagle, Kiowa Warrior Upgrades, CMWS Hostile Fire Indication,

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605601A / *ARMY TEST RANGES AND FACILITIES*	**Project (Number/Name)** F30 / *Army Test Ranges & Facilities*

Excalibur, Green Ammo, Nett Warrior, Joint Tactical Radio System (JTRS), Joint Battle Command-Platform (JBC-P), Aircraft Hostile Fire Detection System (HFDS), Paladin Integrated Management (PIM), and Longbow Hellfire Modular Missile System (LBHMMS)).
Direct costs are borne by materiel developers in accordance with DoD Directive 3200.11 and DOD Financial Management Regulation 7000.14R.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Mission Support	122.179	137.229	91.296
Articles:	-	-	-

Description: Funds support test equipment upgrades and maintenance; test facility maintenance; routine calibration; handling and disposal of hazardous materials, transportation, postage, administrative supplies; tools; software; spare parts; test support vehicle maintenance; mission unique installation costs; temporary duty/training of civilian and contractor personnel; printing and reproduction; communications; land leases; and range road maintenance. Funding supports indirect cost previously paid by the customer for which funding was realigned, as approved by Assistant Secretary of the Army for Acquisition, Logistics and Technology and validated by Deputy Assistant Secretary of the Army for Cost and Economics, from the Army PEO/PMs and non-Army DOD customers.

FY 2013 Accomplishments:
Funds supported test equipment upgrades and maintenance; test facility maintenance; routine calibration; handling and disposal of hazardous materials, transportation, postage, administrative supplies; tools; software; spare parts; test support vehicle maintenance; mission unique installation costs; temporary duty/training of civilian and contractor personnel; printing and reproduction; communications; land leases; and range road maintenance. Funding supported indirect cost previously paid by the customer for which funding was realigned, as approved by Assistant Secretary of the Army for Acquisition, Logistics and Technology and validated by Deputy Assistant Secretary of the Army for Cost and Economics, from the Army PEO/PMs and non-Army DOD customers.

FY 2014 Plans:
Funds support test equipment upgrades and maintenance; test facility maintenance; routine calibration; handling and disposal of hazardous materials, transportation, postage, administrative supplies; tools; software; spare parts; test support vehicle maintenance; mission unique installation costs; temporary duty/training of civilian and contractor personnel; printing and reproduction; communications; land leases; and range road maintenance. Funding supports indirect cost previously paid by the customer for which funding was realigned, as approved by Assistant Secretary of the Army for Acquisition, Logistics and Technology and validated by Deputy Assistant Secretary of the Army for Cost and Economics, from the Army PEO/PMs and non-Army DOD customers.

FY 2015 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605601A / *ARMY TEST RANGES AND FACILITIES*	**Project (Number/Name)** F30 / *Army Test Ranges & Facilities*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Funds were realigned to higher Army priorities. This funding level provides for reduced levels of support for test equipment upgrades and maintenance and test facility maintenance at the Army Test Centers. This will sustain test capabilities at minimum levels. The reduced funding level aligns to reductions in Army Acquisition programs.			
Title: T&E Civilian Pay ***Articles:*** ***Description:*** This funding supports the overhead costs of the civilian labor for Program Budget Guidance (PBG) authorizations. The balance is customer funded. The test customer pays all direct costs that are directly attributable to the use of a test facility or resource for testing of a particular program. Funding is essential to maintain core T&E skills as part of the Government civilian workforce. ***FY 2013 Accomplishments:*** Funds supported the overhead costs of the civilian labor for Program Budget Guidance (PBG) authorizations. The balance was customer funded. The test customer payed all direct costs that are directly attributable to the use of a test facility or resource for testing of a particular program. Funding was essential to maintain core T&E skills as part of the Government civilian workforce. ***FY 2014 Plans:*** This funding supports the overhead costs of the civilian labor for Program Budget Guidance (PBG) authorizations. The balance is customer funded. The test customer pays all direct costs that are directly attributable to the use of a test facility or resource for testing of a particular program. Funding is essential to maintain core T&E skills as part of the Government civilian workforce. ***FY 2015 Plans:*** Funds will support the overhead costs of the civilian labor for Program Budget Guidance (PBG) authorizations. The balance will be customer funded. The test customer will pay all direct costs that are directly attributable to the use of a test facility or resource for testing of a particular program. Funding will be essential to maintain core T&E skills as part of the Government civilian workforce.	134.829 -	133.306 -	124.236 -
Title: Contractor Support ***Articles:*** ***Description:*** This funding supports contractor labor costs not appropriately billable to the customer. Contract labor is essential to augment core civilian T&E personnel. Functions performed include range operations, automotive test support, radar maintenance, warehousing support, project management, maintenance of support fleet aircraft, recurring/general maintenance to test facilities and data acquisition support. Funding supports contractor efforts related to mission support. ***FY 2013 Accomplishments:***	64.105 -	59.942 -	54.493 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605601A / *ARMY TEST RANGES AND FACILITIES*	**Project (Number/Name)** F30 / *Army Test Ranges & Facilities*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Funds supported contractor labor costs not appropriately billable to the customer. Contract labor was essential to augment core civilian T&E personnel. Functions performed included range operations, automotive test support, radar maintenance, warehousing support, project management, maintenance of support fleet aircraft, recurring/general maintenance to test facilities and data acquisition support. Funding supported contractor efforts related to mission support. ***FY 2014 Plans:*** This funding supports contractor labor costs not appropriately billable to the customer. Contract labor is essential to augment core civilian T&E personnel. Functions performed include range operations, automotive test support, radar maintenance, warehousing support, project management, maintenance of support fleet aircraft, recurring/general maintenance to test facilities and data acquisition support. Funding supports contractor efforts related to mission support. ***FY 2015 Plans:*** Funds were realigned to higher Army priorities. Due to reductions in Army Acquisition programs requirements for contractor supported workload are projected to decrease. Functions performed will include range operations, automotive test support, radar maintenance, warehousing support, project management, maintenance of support fleet aircraft, recurring/general maintenance to test facilities and data acquisition support. Funding will support reduced contractor efforts related to mission support. Contractor support aligns to projected Army Acquisition program test requirements.			
Title: Revitalization/Upgrade	10.000	10.000	5.000
Articles:	-	-	-
Description: Funds support the revitalization/upgrade of test infrastructure and capabilities. MRTFB elements are required to use institutional funding to sustain, upgrade or create capabilities that support multiple customers. Funding will be focused on improving test and evaluation capabilities for the highest priority Army programs. ***FY 2013 Accomplishments:*** Funds supported the revitalization/upgrade of test infrastructure and capabilities. MRTFB elements were required to use institutional funding to sustain, upgrade or create capabilities that support multiple customers. Funding was focused on improving test and evaluation capabilities for the highest priority Army programs. ***FY 2014 Plans:*** Revitalization/Upgrade of test infrastructure and capabilities. MRTFB elements are required to use institutional funding to sustain, upgrade or create capabilities that support multiple customers. Funding will be focused on improving test and evaluation capabilities for distributed test operations, joint and Army network centric testing. ***FY 2015 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605601A / *ARMY TEST RANGES AND FACILITIES*	**Project (Number/Name)** F30 / *Army Test Ranges & Facilities*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Funds were realigned to higher Army priorities. Funds will provide reduced support for revitalization/upgrade of test infrastructure and capabilities. Due to projected reductions in Army Acquisition program testing revitalization and upgrade of test facilities will decrease. Funding will be focused on improving test and evaluation capabilities for the highest priority Army programs.			
Title: High Energy Laser System Test Facility (HELSTF)	2.974	-	-
Articles:	-	-	-
Description: Provides partial funding for the sustainment requirement for HELSTF capability at White Sands Missile Range (WSMR) in New Mexico. HELSTF includes an array of chemical and solid state laser systems, beam directors, sensors, associated test instrumentation and centralized data processing capabilities. ***FY 2013 Accomplishments:*** Provided partial funding for the sustainment requirement for HELSTF capability at White Sands Missile Range (WSMR) in New Mexico. HELSTF includes an array of chemical and solid state laser systems, beam directors, sensors, associated test instrumentation and centralized data processing capabilities.			
Accomplishments/Planned Programs Subtotals	334.087	340.477	275.025

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605602A / *Army Technical Test Instrumentation and Targets*							
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	-	61.711	66.025	45.596	-	45.596	42.618	50.459	50.216	55.292	-	-
628: *Developmental Test Technology & Sustainment*	-	40.644	46.789	33.007	-	33.007	32.688	40.304	34.652	36.466	-	-
62C: *Modeling and Simulation Instrumentation*	-	21.067	19.236	12.589	-	12.589	9.930	10.155	15.564	18.826	-	-

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

Note

FY13 adjustments attributed to Congressional General Reductions (-102 thousand); SBIR/STTR transfers (-1.786 million); and Sequestration reductions (-5.584 million). FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

This Program Element provides critical front-end investments for development of new test methodologies; test standards; advanced test technology concepts for long range requirements; future test capabilities; advanced development of modeling and simulation (M&S) and instrumentation prototypes; and the full development of test instrumentation for the United States Army Test and Evaluation Command (ATEC), which includes the Operational Test Command (OTC) at Ft Hood, Texas; Aberdeen Test Center (ATC), Aberdeen Proving Ground, Maryland; White Sands Test Center (WSTC) at White Sands Missile Range (WSMR), New Mexico; Electronic Proving Ground (EPG), Fort Huachuca, Arizona; Yuma Test Center (YTC) at Yuma Proving Grounds (YPG), Arizona (including the Cold Regions Test Center (CRTC), Fort Greely, Alaska and the Tropics Regions Test Center (TRTC), at various locations); Redstone Test Center (RTC), Redstone Arsenal, Alabama; and West Desert Test Center (WDTC) at Dugway Proving Ground (DPG), Utah. OTC consists of four forward Test Directorates (Airborne and Special Operations Test Directorate, Fort Bragg, North Carolina; Integrated Test and Evaluation Directorate, Fort Bliss, Texas; Fires Test Directorate, Fort Sill, Oklahoma; and Intelligence Electronic Warfare Test Directorate, Fort Huachuca, Arizona) together with four other Test Directorates (Aviation; Maneuver; Mission Command; Maneuver Support and Sustainment) at Ft Hood, Texas. These activities support the development and fielding cycle of all Army acquisition programs including rapid fielding initiatives in support of operations in Afghanistan. Sustainment funding maintains existing testing capabilities at all locations by replacing unreliable, uneconomical, and irreparable instrumentation, as well as incremental upgrades of hardware and software for M&S and instrumentation systems to assure adequate test data collection capabilities. This data supports acquisition milestone decisions for all commodity areas throughout the Army including programs such as the Joint Light Tactical Vehicle (JLTV), Network Integration Evaluation (NIE), Terminal High Altitude Area Defense (THAAD), Patriot Advance Capability Phase 3 (PAC-3), Armored Multipurpose Vehicle (AMPV), Warfighter Information Network - Tactical (WIN-T), Joint Tactical Radio System (JTRS), and the Army Battle Command System (ABCS) which includes Joint Battle Command - Platform. This Program Element develops and sustains developmental and operational test capabilities that provide key support to the Army's three roles: Prevent, Shape, and Win Decisively. In addition this Program Element supports Overseas Contingency Operations by providing instrumentation to support ATEC's 24/7 mission at YTC, Arizona, WSMR, New Mexico and ATC, Maryland supporting the Joint Improvised Explosive Device Defeat Organization (JIEDDO), as well as efforts throughout ATEC in support of the Army's Rapid Equipping the Force (REF) initiative.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*			R-1 Program Element (Number/Name) PE 0605602A / *Army Technical Test Instrumentation and Targets*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	69.183	66.061	64.882	-	64.882
Current President's Budget	61.711	66.025	45.596	-	45.596
Total Adjustments	-7.472	-0.036	-19.286	-	-19.286
• Congressional General Reductions	-0.102	-0.036			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.786	-			
• Adjustments to Budget Years	-	-	-19.286	-	-19.286
• Other Adjustments	-5.584	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605602A / *Army Technical Test Instrumentation and Targets*	Project (Number/Name) 628 / *Developmental Test Technology & Sustainment*	

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
628: *Developmental Test Technology & Sustainment*	-	40.644	46.789	33.007	-	33.007	32.688	40.304	34.652	36.466	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

Army consolidated three Test and Evaluation Command Headquarters - Army Test and Evaluation Command (ATEC), Developmental Test Command (DTC), and Army Evaluation Center (AEC). As a result of this consolidation, ATEC aligned all requirements for the program management and oversight of test technology and instrumentation investment accounts under one Program Element. Funds reprogrammed effective FY2014.

A. Mission Description and Budget Item Justification

This program provides critical front-end investments for development of new test methodologies, test standards, advanced test technology concepts for long range requirements, future test capabilities, and advanced instrumentation prototypes for subordinate commands of the Army Test and Evaluation Command (ATEC). These capabilities are required to support developmental testing requirements of high priority Army systems being rapidly fielded to Afghanistan, and those systems supporting Army modernization efforts. Where practical, efficiencies will be gained through the common use of developmental instrumentation in operational testing. A key element is sustaining aging instrumentation which maintains existing capabilities at test facilities by replacing unreliable, uneconomical and irreparable instrumentation, as well as lifecycle replacement and incremental upgrades of instrumentation and software, reducing their average age to assure adequate testing capabilities. This project develops and sustains developmental test instrumentation and capabilities that provide the data necessary to support acquisition milestone decisions for all commodity areas throughout the Army. Significant examples include new instrumentation for the testing of body armor and other soldier protective equipment, advanced methods for testing the survivability of ground vehicles and aircraft, a new six degree-of-freedom vibration system to improve missile testing efficiency, and an expanded instrumentation suite in support of the growing mission to test Command, Control, Communication and Computer (C4) systems.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Program Management	5.142	-	-
Articles:	-	-	-
Description: Provides command-level oversight, management and technical support for the DT test technology and instrumentation investment accounts. Provides support to ATEC Capstone efforts in coordinating development of common instrumentation and technology needs for developmental and operational testing. Provides management and support costs for direct interface with the T&E Executive Agent, management of needs and solutions calls for T&E Reliance oversight, management of the Small Business Innovation Research (SBIR), and support of the Army principal of the Test Resource Advisory Group (TRAG).			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605602A / *Army Technical Test Instrumentation and Targets*	**Project (Number/Name)** 628 / *Developmental Test Technology & Sustainment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Continuation of the existing requirement for the development of common instrumentation and technology to support developmental and operational testing. Support of the Army principal of the Test Resource Advisory Group (TRAG).			
Title: Developmental Test Technology Investment	32.496	42.885	30.253
Articles:	-	-	-
Description: Develops, acquires and sustains critical test technology and instrumentation: Provides the necessary test instrumentation, computer and communications systems, data collection, analysis and reporting equipment and other test capabilities to successfully develop and test the Army weapons and equipment. Provides the necessary live, virtual and constructive environment, hardware-in-the-loop capabilities and models and simulations needed for testing the Army materiel. Acquires instrumentation for reliability, availability and maintainability (RAM) data collection on tracked and wheeled vehicles; ballistic transducers for measuring chamber pressures during ammunition tests; supports development of common data collection instrumentation used in testing across all test commodity areas and test lifecycles; acquires instrumentation for electromagnetic environmental effects (E3) on ground and air systems; continues replacement and upgrade of range control instrumentation, radar, optics and telemetry equipment used in missile testing; acquires data recorders, signal conditioning equipment, data processing equipment and other instrumentation for various aircraft tests; upgrades natural environments test instrumentation used for testing weapon systems, vehicles, munitions and support equipment in extreme hot desert plus tropic environments as well as extreme cold conditions; continues upgrade of survivability/vulnerability test capabilities in support of live fire, active protection systems, and homemade explosive characterization; upgrades and replaces mobile range communications equipment and digital end devices; and develops advanced test technologies and instrumentation for testing next generation materiel such as advanced armor protection, multi-spectral sensors, and advanced soldier systems.			
FY 2013 Accomplishments: Provided, acquired and upgraded instrumentation for RAM, ballistic, missile, aviation and environmental testing across all test commodity areas and support the test capability of live fire survivability testing.			
FY 2014 Plans: Continue to provide, acquire and upgrade instrumentation for RAM, ballistic, missile, aviation and environmental testing across all test commodity areas and support the test capability of live fire survivability testing.			
FY 2015 Plans: Will continue to provide, acquire and upgrade instrumentation for RAM, ballistic, missile, aviation and environmental testing across all test commodity areas and support the test capability of live fire survivability testing.			
Title: Homemade Explosive Characterization Study	-	3.462	2.442

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605602A / *Army Technical Test Instrumentation and Targets*	**Project (Number/Name)** 628 / *Developmental Test Technology & Sustainment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: Homemade explosives are the prevalent underbody threat in Operation Enduring Freedom area of operation. Currently live fire testing cannot use Army G2-validated homemade explosive surrogate because its performance has varied greatly from test-to-test. This study will characterize subscale and full scale repeatability of Army G2-validated surrogate homemade explosive charge for use in live fire test events and compare the performance relative to TNT standard. Results from this homemade explosive characterization will inform efforts to improve combat vehicle survivability. ***FY 2014 Plans:*** Will continue to obtain data to quantify target responses of homemade explosive surrogates and additional standard TNT mine threats used in live fire testing and provide data set to support future verification, validation, and accreditation (VV&A) of underbody blast modeling and simulation tools. ***FY 2015 Plans:*** Will complete the quantification of target responses of homemade explosive surrogates and additional standard TNT mine threats used in live fire testing and provide data set to support future verification, validation, and accreditation (VV&A) of underbody blast modeling and simulation tools.			
Title: Automotive Technology Evaluation Facility	2.592	-	-
Articles:	-	-	-
Description: Automotive Technology Evaluation Facility (ATEF) Test Track Upgrades - An automated traffic control system will be installed to monitor vehicle positions on the course and control accesses to and from the facility. Continuous vehicle monitoring is required for range safety and automatic collision avoidance while simultaneously conducting sustained speed endurance, vehicle dynamics and stability, robotic/autonomous vehicle control and traction control testing. ***FY 2013 Accomplishments:*** Maintain automated traffic control system and continue monitoring range safety while conducting simultaneous vehicle testing. An instrumentation suite will be procured to collect and transmit real-time test data, consisting of on-board data acquisition equipment, telemetry receiving stations, wireless communications network, vehicle position systems, a fiber-optic network interface, and will be equipped with a driverless test vehicle guidance system.			
Title: Army Test and Evaluation Command (ATEC) Common Test Technology for Developmental Testing, Operational Testing, and Evaluation	0.414	0.442	0.312
Articles:	-	-	-
Description: Army Test and Evaluation Command (ATEC) Common Test Technology for Developmental Testing, Operational Testing, and Evaluation. Provides support for development of a Test and Evaluation Enterprise Architecture to facilitate use			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605602A / *Army Technical Test Instrumentation and Targets*	**Project (Number/Name)** 628 / *Developmental Test Technology & Sustainment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
of common tools and standards; support for critical Test Technology Domain Focus Areas of Instrumentation, Modeling and Simulation, Threats, Data Management, and Networks; and support, implementation of ATEC Regulation 70-15 ***FY 2013 Accomplishments:*** Due to the consolidation of headquarters functions within ATEC, most efforts funded by this project have been transferred to the appropriate headquarters account. This project supported the sustainment of the Starship instrumentation monitoring and control software. ***FY 2014 Plans:*** Due to the consolidation of headquarters functions within ATEC, most efforts funded by this project have been transferred to the appropriate headquarters account. This project will continue to support the sustainment of the Starship instrumentation monitoring and control software. ***FY 2015 Plans:*** Will continue to support the sustainment of the Starship instrumentation monitoring and control software.			
Accomplishments/Planned Programs Subtotals	40.644	46.789	33.007

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605602A / *Army Technical Test Instrumentation and Targets*	Project (Number/Name) 62C / *Modeling and Simulation Instrumentation*	

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
62C: *Modeling and Simulation Instrumentation*	-	21.067	19.236	12.589	-	12.589	9.930	10.155	15.564	18.826	-	-
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 US Army Test and Evaluation Command (USATEC) plans, conducts and reports on operational tests, assessments and experiments in order to provide essential information for the acquisition and fielding of War Fighting Systems. Operational Test (OT) Instrumentation collects required data from both the systems being tested and the surrounding activities. OT simulation enhances the live forces conducting operational testing by simulating additional units, message traffic, effects, and terrain. The Army's OPTEMPO has reduced the number of tactical units and vehicles available to support OT, making augmentation through simulation needed at times to test in a realistic, operational environment. The Program Executive Office for Simulation, Training, and Instrumentation (PEO STRI) Project Manager for Instrumentation, Targets and Threat Simulators (PM ITTS) provides development of major simulation and instrumentation systems while ATEC adapts systems from other organizations, purchases off-the-shelf systems, develops minor new systems, and sustains all ATEC simulation and instrumentation systems. The OT Simulation and Instrumentation (S&I) (Sustainment and Minor Development) program funds the expertise and the adaptation, purchases, minor development and sustainment requirements that support systems undergoing OT. Costs unique to specific systems under test may require Program Manager (PM) funding.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Modeling, Simulation and Instrumentation	21.067	19.236	12.589
Articles:	-	-	-
Description: Develop and enhance ATEC's simulation/stimulation of Mission Command, Fire Support, Air Defense, Reconnaissance and Surveillance, and Network systems. Improve and sustain our Real-Time Casualty Assessment (RTCA) (including geo-pairing) capabilities. Plus develop, enhance, and sustain our Performance Instrumentation Systems, Time Space Positioning Information (TSPI) and Telemetry Systems, and Imaging Systems together with their associated data management.			
FY 2013 Accomplishments: FY13 Programs - The individually accomplished technology projects within all the domains as described in ATEC Regulation 70-15, Table 1, 22 Mar 06, include but are not limited to: DoD Information Assurance Certification and Accreditation Process (DIACAP) for all ATEC MS&I Systems, Sustainment and ATEC Technology Capabilities and associated data management, Test Technology Execution Capabilities – Operational Test Advanced Simulation and Instrumentation Systems (OASIS) and associated data management, Network Control Systems/Battle Command Simulation and associated data management, Real-Time Casualty Assessment (RTCA) (including GEO Pairing) and associated data management, Fires Simulation and Instrumentation - ExCIS FSA and associated data management, Intelligence Surveillance and Reconnaissance (ISR) Simulation and Instrumentation -			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605602A / *Army Technical Test Instrumentation and Targets*	**Project (Number/Name)** 62C / *Modeling and Simulation Instrumentation*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Intelligence Modeling and Simulation for Evaluation (IMASE) and associated data management, Performance Instrumentation Systems and associated data management, Time Space Positioning Information (TSPI) and Telemetry Systems and associated data management, and Imaging Systems and associated data management. ***FY 2014 Plans:*** FY14 Planned Programs - Sustain and develop ATEC's simulation/stimulation of Mission Command, Fire Support, Air Defense, Reconnaissance and Surveillance, and Network systems. Begin an effort to improve our Real-Time Casualty Assessment (RTCA) (including geo-pairing) capabilities to support future GCV, AMPV, and the Bradley Performance Improvement Program (PIP), Stryker PIP, and Abrams PIP OTs. Plus develop and sustain our Performance Instrumentation Systems and associated data management, Time Space Positioning Information (TSPI) and Telemetry Systems and associated data management, and Imaging Systems and associated data management. ***FY 2015 Plans:*** FY15 Planned Programs - Continue to sustain and enhance ATEC's simulation/stimulation of Mission Command, Fire Support, Air Defense, Reconnaissance and Surveillance, and Network systems. Continue to improve our Real-Time Casualty Assessment (RTCA) (including geo-pairing) capabilities to support future GCV, AMPV, and the Bradley Performance Improvement Program (PIP), Stryker PIP, and Abrams PIP OTs. Sustain and develop our Performance Instrumentation Systems and associated data management, Time Space Positioning Information (TSPI) and Telemetry Systems and associated data management, and Imaging Systems and associated data management.			
Accomplishments/Planned Programs Subtotals	21.067	19.236	12.589

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605604A / *Survivability/Lethality 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**
Total Program Element	-	40.865	43.256	33.295	-	33.295	28.203	28.320	28.572	29.638	-	-
675: *Army Survivability Analysis & Evaluation Supp*	-	40.865	43.256	33.295	-	33.295	28.203	28.320	28.572	29.638	-	-

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

Note

FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

This project funds analytical products necessary for inherently-governmental Army Test & Evaluation Command/Army Evaluation Center's (ATEC/AEC) mission. Products result from investigating, analyzing, assessing, and reporting on the survivability of Soldiers, and on the survivability, lethality and vulnerability (SLV) of the highest priority Army systems whether those systems are employed during stability, support, defensive, or offensive missions. Developed through measurement, experiment, test support, and modeling and simulation (M&S), the products funded by this project are used in many ways to make the Army force more survivable. The project provides quantitative lethality and survivability analyses and data for fielded and developmental systems as the Army makes the required choices to decisively transform into a modular Brigade Combat Team (BCT) based organization. Products concern Army fire support systems, direct fire munitions; Army air defense and missile defense systems; Army aviation systems including Unmanned Aerial Vehicles; network communications and other network enabled battle command and communication systems; and selected joint services systems particularly relevant to the Army's joint and expeditionary role. Products also include analysis and data concerning individual Soldier items including protective equipment such as helmets and vests. These survivability products are leveraged into rapid-equipping initiatives and other technical support for operational forces involved in the current fight. Continued development of these products also guarantees preservation of the Army's vitally needed technical corporate memory for expert survivability advice.

Survivability analyses funded by this project are conducted across the spectrum of battlefield threats to include guns, missiles, mines and other methods of inflicting physical damage; jammers, countermeasures, and other electronic warfare techniques; cybersecurity and computer network operations; and directed energy weapons. This survivability information enables developers, users, and decision makers to perform credible survivability tradeoffs for both Soldiers and materiel. These technical survivability details enable properly informed decisions concerning systems and tactics that maximize both the combat power and survivability of Army forces. Survivability data and analysis results funded by this project are efficiently leveraged for many different Army uses, reducing total cost to the Army by eliminating the need for duplicative capabilities funded by individual system developers. Central funding of this mission assures the Army accurate and consistent treatment of survivability across all classes of systems, across all formal system Evaluations, and across the Army's AR 5-5 studies process. Work program is prioritized principally by the ATEC/AEC and is used by them in the Army's formal Evaluation process in such a way that ATEC can comply with its legally mandated responsibility to assess system survivability along with effectiveness and suitability. Program Managers (PM) and the Program Executive Officers (PEO) use the survivability analyses and data funded by this project to make design decisions that are optimized for survivability, to direct specific weapon system development efforts that are needed for survivability enhancement, and to structure product improvement programs. Soldier survivability data and analysis is leveraged to support the survivability portion of the HQDA G1

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army	Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605604A / *Survivability/Lethality Analysis*

MANPRINT program. TRADOC combat developers exploit the survivability products funded by this project to initiate and improve survivability/lethality requirements, and to develop and refine doctrine and tactics. Also, the quantitative analytical results funded by the project are leveraged as core inputs to formal AR 5-5 studies and other studies as directed by Army leaders. While the Army is at war, analytical results funded by this project are also directly leveraged for survivability support to current operations. Finally, for particularly urgent or controversial survivability issues, data and analysis funded by this project are used directly by senior Army decision makers to assure technically sound program/production decisions.

This project also supports cybersecurity survivability analysis of Army battle command/networked systems as well as Army network architectures and technology. Supports ATEC and other electronic warfare vulnerability testers and evaluators by developing and providing highly technical specialized field countermeasure environments that threat forces may employ against Army communications networks, air defense and other systems. In conjunction with PMs and Army intelligence agencies, analyzes technical vulnerabilities of foreign weapons, network related systems, and intelligence Electronic Warfare (EW) systems to U.S. Army EW systems. Without the survivability products funded by this project, ATEC would not have a technically credible account of survivability issues at milestone decision points and systems could be fielded with unknown vulnerabilities leading to unnecessary US casualties. PMs would make design choices that failed to properly optimize survivability, TRADOC would generate requirements that were not technically credible, and the Army studies process would rest on an inaccurate and inconsistent basis.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	44.753	43.280	41.736	-	41.736
Current President's Budget	40.865	43.256	33.295	-	33.295
Total Adjustments	-3.888	-0.024	-8.441	-	-8.441
• Congressional General Reductions	-0.107	-0.024			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.339	-			
• Adjustments to Budget Years	-	-	-8.441	-	-8.441
• Other Adjustments	-3.442	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605604A / *Survivability/Lethality Analysis*				Project (Number/Name) 675 / *Army Survivability Analysis & Evaluation Supp*			
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**
675: *Army Survivability Analysis & Evaluation Supp*	-	40.865	43.256	33.295	-	33.295	28.203	28.320	28.572	29.638	-	-
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 analytical products necessary for inherently-governmental Army Test & Evaluation Command/Army Evaluation Center's (ATEC/AEC) mission. Products result from investigating, analyzing, assessing, and reporting on the survivability of Soldiers, and on the survivability, lethality and vulnerability (SLV) of the highest priority Army systems whether those systems are employed during stability, support, defensive, or offensive missions. Developed through measurement, experiment, test support, and modeling and simulation (M&S), the products funded by this project are used in many ways to make the Army force more survivable. The project provides quantitative lethality and survivability analyses and data for fielded and developmental systems as the Army makes the required choices to decisively transform into a modular Brigade Combat Team (BCT) based organization. Products concern Army fire support systems, direct fire munitions; Army air defense and missile defense systems; Army aviation systems including Unmanned Aerial Vehicles; network communications and other network enabled battle command and communication systems; and selected joint services systems particularly relevant to the Army's joint and expeditionary role. Products also include analysis and data concerning individual Soldier items including protective equipment such as helmets and vests. These survivability products are leveraged into rapid-equipping initiatives and other technical support for operational forces involved in the current fight. Continued development of these products also guarantees preservation of the Army's vitally needed technical corporate memory for expert survivability advice.

Survivability analyses funded by this project are conducted across the spectrum of battlefield threats to include guns, missiles, mines and other methods of inflicting physical damage; jammers, countermeasures, and other electronic warfare techniques; cybersecurity and computer network operations; and directed energy weapons. This survivability information enables developers, users, and decision makers to perform credible survivability tradeoffs for both Soldiers and materiel. These technical survivability details enable properly informed decisions concerning systems and tactics that maximize both the combat power and survivability of Army forces. Survivability data and analysis results funded by this project are efficiently leveraged for many different Army uses, reducing total cost to the Army by eliminating the need for duplicative capabilities funded by individual system developers. Central funding of this mission assures the Army accurate and consistent treatment of survivability across all classes of systems, across all formal system Evaluations, and across the Army's AR 5-5 studies process. Work program is prioritized principally by the ATEC/AEC and is used by them in the Army's formal Evaluation process in such a way that ATEC can comply with its legally mandated responsibility to assess system survivability along with effectiveness and suitability. Program Managers (PM) and the Program Executive Officers (PEO) use the survivability analyses and data funded by this project to make design decisions that are optimized for survivability, to direct specific weapon system development efforts that are needed for survivability enhancement, and to structure product improvement programs. Soldier survivability data and analysis is leveraged to support the survivability portion of the HQDA G1 MANPRINT program. TRADOC combat developers exploit the survivability products funded by this project to initiate and improve survivability/lethality requirements, and to develop and refine doctrine and tactics. Also, the quantitative analytical results funded by the project are leveraged as core inputs to formal AR 5-5 studies and other studies as directed by Army leaders. While the Army is at war, analytical results funded by this project are also directly leveraged for survivability support to

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
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current operations. Finally, for particularly urgent or controversial survivability issues, data and analysis funded by this project are used directly by senior Army decision makers to assure technically sound program/production decisions.

This project also supports highly technical cybersecurity survivability analysis of Army battle command/networked systems as well as Army network architectures and technology. Supports ATEC and other electronic warfare vulnerability testers and evaluators by developing and providing highly technical specialized field countermeasure environments that threat forces may employ against Army communications networks, air defense and other systems. In conjunction with PMs and Army intelligence agencies, analyzes technical vulnerabilities of foreign weapons, network related systems, and intelligence Electronic Warfare (EW) systems to U.S. Army EW systems. Provides survivability analysis to SoS Network Vulnerability Assessments to CIO G6, Network Integration Evaluation (NIE)to triad (the Brigade Modernization Command (BMC), the Army Test and Evaluation Command (ATEC), and the System of Systems Integration (SoSI)Directorate). Without the survivability products funded by this project, ATEC would not have a technically credible account of survivability issues at milestone decision points and systems could be fielded with unknown vulnerabilities leading to unnecessary US casualties. PMs would make design choices that failed to properly optimize survivability, TRADOC would generate requirements that were not technically credible, and the Army studies process would rest on an inaccurate and inconsistent basis.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Survivability, Lethality, Vulnerability (SLV) Analyses for Ground, Aviation, Munitions, and Soldier Systems	18.913	20.518	15.478
Articles:	-	-	-

Description: Conduct integrated survivability, lethality, vulnerability analyses for developmental aviation, ground, soldier and munition systems including Stryker, Ground Soldier System, Excalibur, and Intelligent Mine System (IMS). Completed ballistic survivability/vulnerability analysis for MRAP T&E, Guided Multiple Launch Rocket system (GMLRS) Alternative Warhead Initial Operational Test and Evaluation (IOT&E) and Excalibur Live Fire Test and Evaluation (LFT&E) System Engineering Test-P1 test events, which included providing pre-shot predictions, performing damage assessments after each live fire test, completing post-shot analyses, behind armor debris (BAD) test/analyses, and crew survivability analysis and providing technical data required by ATEC for the Systems Evaluation Reports. Additionally, results and recommendations from our crosswalk of MRAP LFT&E assessed casualty/selected Theater casualty incidents were briefed to MRAP PM & vendors, ATEC, HQDA and DOT&E resulting in vehicle design improvements for MRAP platforms.

FY 2013 Accomplishments:
Conducted survivability/vulnerability assessments of the RPG Protection and Underbody Blast Protection demonstrators provided by the GCV Technology Development contractors. Initiated the Paladin Improvement Management (PIM) vehicle Componennt Ballistic Tests.

FY 2014 Plans:
Conduct vulnerability analysis for future helicopter systems, such as future vertical lift. Conduct analysis for Kiowa CASUP MS C evaluations to include ballistic survivability assessment, MANPADs threat assessments, and EW and cybersecurity assessments.

FY 2015 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605604A / *Survivability/Lethality Analysis*	**Project (Number/Name)** 675 / *Army Survivability Analysis & Evaluation Supp*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Will conduct ballistic SLVA on AEC's highest priority platform and weapon systems, supporting LFT&E pre-shot predictions, damage assessments, post-shot analysis, and crew survivability analysis and providing technical data for system evaluation reports. Will provide vulnerability reduction recommendations to PMs for those systems supported. For systems analyzed will provide data to AMSAA for support of AR 5-5 and other Army studies. Will conduct conventional and under-body blast vulnerability analyses for the M270A1 MLRS. Will perform pre-shot predictions and prepare for the start of Paladin Integrated Management program's FUSL live-fire in 1QFY16.			
Title: Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) System Survivability Assessments	14.331	15.067	14.850
Articles:	-	-	-
Description: This effort produces assessments of the survivability of C4ISR systems in Electronic (EW) and cybersecurity threat environments and conducts Electronic Attack (EA) and Cybersecurity projects that reveal critical vulnerabilities in C4ISR systems. It also defines, demonstrates, and recommends mitigation options to proponents and evaluators of C4ISR. A cyber vulnerability database is maintained for the benefit of the community.			
FY 2013 Accomplishments: EW and Cybersecurity/CND modeling and analysis results were provided to AEC for their evaluation reports. Continued conducting EW and Cybersecurity modeling, testing and analysis of system evaluated in NIE events. Supported C4ISR systems survivability EW and Cybersecurity modeling analysis and test verification and validation of performance, for example, multi-spectral signature measurements. Conducted C4ISR system IO/EW/ES assessment. Completed the survivability assessment. ARL/SLAD, Product Manager and Combat Developer in concert with the intelligence community initiated a product improvement program (P31 strategy) to develop and field additional survivability enhancement measures (Electronic Protect/CND) to address future threat capabilities which may place the Army C4ISR system at risk to enemy targeting in the evolving EW threat environment during Army RESET.			
FY 2014 Plans: Conduct modeling and simulation on WIN-T Inc 3 in support of AEC's survivability evaluation of JC4ISR radio's Milestone C decision scheduled for FY15. Conduct priority modeling, testing and analyses of MNVR, Rifleman and Handheld, Manpack and Small Form Fit (HMS) systems. Conduct Electronic Protection (EP) and Cybersecurity survivability analysis investigations to help identify and mitigate capability gaps in areas such as: C4ISR, battlespace awareness, joint fires, intelligence fusion with secure data sharing and combat identification. Work with AEC, product developer and TRADOC user communities to provide integrated SV solutions that are necessary to counter increasingly smart and sophisticated evolving EW and IW threats. Provide analysis of systems and networks during System-of-Systems Network Vulnerability Assessments and Network Integration Evaluations.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605604A / *Survivability/Lethality Analysis*	**Project (Number/Name)** 675 / *Army Survivability Analysis & Evaluation Supp*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Will conduct Electronic Protection (EP) and Cybersecurity survivability analysis Investigations to help identify and mitigate capability gaps in areas such as: C4ISR, battle space awareness, joint fires, intelligence fusion with secure data sharing and combat identification. Will work in conjunction with AEC, product developers and TRADOC user communities to provide integrated SV solutions that are necessary to counter increasingly smart and sophisticated evolving EW and cyber threats. Will provide analysis of systems and networks during System-of-Systems Network Vulnerability Assessments and Network Integration Evaluations. Will conduct modeling, simulation and testing on WIN-T Inc 3 in support of AEC's survivability evaluation of JC4ISR radio's Milestone C decision scheduled for FY16. Will conduct analysis on both legacy and new COTs radios and waveforms as required. Will conduct EW and cyber studies on MARSS, DGCS, Prophet and UAS ISR, AFATDS and IPADS. Will advance development of SAGE communication modeling environment in support of NIE and other field test environments. Will develop a methodology to investigate and test GPS reliant systems in an anechoic chamber. Will continue developing tools and techniques to conduct software code analysis and the subsequent development of potential exploits. Will further development of a large-scale mobile ad-hoc network simulation environment to determine potential vulnerabilities in systems before DT/OT test events.			
Title: Survivability, Lethality, Vulnerability (SLV) Analyses for Developmental Air and Missile Defense Systems	5.877	5.905	1.554
Articles:	-	-	-
Description: Conduct integrated SLV analyses for developmental air and missile defense systems, pre-planned product improvements of current systems, and recently fielded systems. These systems include the Ballistic Missile Defense System (BMDS), Terminal High Altitude Air Defense (THAAD), PATRIOT, Surface-Launched Advanced Medium Range Air-to-Air Missile (SLAMRAAM), Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS), and Sentinel.			
FY 2013 Accomplishments: Continued FMS AEA upgrade for Patriot. Prepares for PDB-8 testing. Provided electronic countermeasures ground support to JLENS Limited User Test (LUT) testing and provides JLENS computer network operations testing and assessment to ATEC.			
FY 2014 Plans: Provide Patriot mobile flight simulator (FMS) with simulated adv. electronic attack countermeasure waveforms. Leverage capability to support air and missile defense systems. Conduct LFT&E testing and lethality assessment of PATRIOT MSE missile assessing new lethality enhancers. Provide cybersecurity testing on multiple air and missile defense system, e.g. counter artillery rocket & mortar (C-RAM) and future efforts, e.g. integrated air& missile defense (IAMD).			
FY 2015 Plans: Will design, develop, and employ advanced electronic attack countermeasures to assess AIAMD system of systems. Will provide advanced EA for Patriot PDB-08 limited user testing. Will conduct cybersecurity testing on next iteration of C-RAM. Will complete live-fire test and evaluation lethality assessment of the Patriot MSE missile.			
Title: System-of-systems survivability simulation (S4)	1.744	1.766	1.413

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605604A / *Survivability/Lethality Analysis*	**Project (Number/Name)** 675 / *Army Survivability Analysis & Evaluation Supp*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: Develop and use an S4 tool to conduct system-of-systems vulnerability analysis supporting the evaluation of a full range of future military capabilities. This tool will allow SLAD to provide analytical information that extends beyond the reach of traditional single-thread analysis and addresses impacts on mission execution. ***FY 2013 Accomplishments:*** Conducted system-of-systems analyses to support major program decisions in support of Army Test and Evaluation Command (ATEC) formal evaluations. ***FY 2014 Plans:*** Supports Army Test and Evaluation Command (ATEC) electronic warfare analysis of software radio. Conduct decision making process development in the context of system of systems survivability analysis. ***FY 2015 Plans:*** Will use the system-of-systems survivability simulation to investigate the effects of wide-ranging battlefield threats upon mission execution. Threat effects include ballistic vulnerability/lethality, cybersecurity, and electronic warfare.			
Accomplishments/Planned Programs Subtotals	40.865	43.256	33.295

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605606A / *AIRCRAFT CERTIFICATION*							
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	-	5.258	6.022	4.700	-	4.700	4.794	4.875	4.869	4.040	-	-
092: *Aircraft Certification*	-	5.258	6.022	4.700	-	4.700	4.794	4.875	4.869	4.040	-	-

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

Note

FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

The Airworthiness Certification program ensures safe flight operation of Army aircraft and aviation systems by means of technical design approval and qualification of systems to appropriate airworthiness standards. It provides independent airworthiness qualification for all assigned developmental and in-production Army aircraft, both manned and unmanned, as required by AR 70-62, and is essential for ensuring the safe operation of Army aircraft. This program, when fully funded, performs all engineering functions (design, analysis, testing, demonstrations, and system specification compliance) essential for certifying the airworthiness of assigned Army aircraft, to include performing safety-of-flight investigations/assessments, evaluating system risks, developing Airworthiness Impact Statements, developing Airworthiness Releases, and evaluating Safety of Flight Messages and Aviation Safety Action Messages for new and upgraded aircraft systems. This program also provides management/execution of the Army's Aeronautical Design Standards (ADS) program; management/execution of airworthiness approval for new systems and materiel changes for all assigned Army aircraft systems; airworthiness engineering support to the Program Executive Office for Aviation (PEO AVN) and the Technology Applications Program Office (TAPO, the Army's Special Operations Aircraft program office) in developing requirements for major development/modification and for any future systems/subsystems; and management of the test and evaluation process in support of the airworthiness qualification process. The Airworthiness Certification program also performs general research and development in support of aircraft qualification and overarching airworthiness projects that involve multiple aircraft models. Current ongoing programs requiring airworthiness qualification are PEO Aviation and TAPO Future Force systems including Longbow Apache E-model; Chinook F-model; Blackhawk M-model and; Special Operations MH-47G and MH-60M; Light Utility Helicopter; Gray Eagle unmanned aircraft system (UAS); Enhanced Multi-sensor Airborne Reconnaissance and Sensor System (EMARSS); and modified Shadow UAS. Additionally the Airworthiness Certification program supports application of other critical aviation subsystems onto Army aircraft, including Aircraft Survivability Equipment (e.g. Advanced Threat Infrared Countermeasures (ATIRCM), Common Missile Warning System (CMWS), Aviation Mission Equipment (e.g. advanced multiband avionics and Tactical Radio Systems and digital data links), Common Sensor (electro-optical multi-spectrum visual sensor), and Blue Force Tracker. The D092 funding profile for the FY14 President's Budget Submission partially funds the airworthiness certification program and therefore the effort will be limited to resourcing military use civil derivative aircraft technical qualification through the Federal Aviation Administration's Military Certification Office; development of airworthiness procedures, specifications, critical standards, and other design and qualification documents; participation in senior leadership mandated airworthiness tri-service activities (e.g. National Airworthiness Council, Joint Aeronautical Commanders Group) and international airworthiness related activities mandated by treaty (e.g. Flight Into Non-segregated Airspace (FINAS); and limited early airworthiness involvement in Technology Transition projects (e.g. Joint Multi Role (JMR) Technology Demonstrator and Future Vertical Lift aircraft) and other OSD initiatives.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*		R-1 Program Element (Number/Name) PE 0605606A / *AIRCRAFT CERTIFICATION*			
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	5.762	6.025	5.990	-	5.990
Current President's Budget	5.258	6.022	4.700	-	4.700
Total Adjustments	-0.504	-0.003	-1.290	-	-1.290
• Congressional General Reductions	-0.014	-0.003			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.037	-			
• Adjustments to Budget Years	-	-	-1.290	-	-1.290
• Other Adjustments	-0.453	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605606A / *AIRCRAFT CERTIFICATION*	Project (Number/Name) 092 / *Aircraft Certification*	

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
092: *Aircraft Certification*	-	5.258	6.022	4.700	-	4.700	4.794	4.875	4.869	4.040	-	-
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 Airworthiness Certification program ensures safe flight operation of Army aircraft and aviation systems by means of technical design approval and qualification of systems to appropriate airworthiness standards. It provides independent airworthiness qualification for all assigned developmental and in-production Army aircraft, both manned and unmanned, as required by AR 70-62, and is essential for ensuring the safe operation of Army aircraft. This program, when fully funded, performs all engineering functions (design, analysis, testing, demonstrations, and system specification compliance) essential for certifying the airworthiness of assigned Army aircraft, to include performing safety-of-flight investigations/assessments, evaluating system risks, developing Airworthiness Impact Statements, developing Airworthiness Releases, and evaluating Safety of Flight Messages and Aviation Safety Action Messages for new and upgraded aircraft systems. This program also provides management/execution of the Army's Aeronautical Design Standards (ADS) program; management/execution of airworthiness approval for new systems and materiel changes for all assigned Army aircraft systems; airworthiness engineering support to the Program Executive Office for Aviation (PEO AVN) and the Technology Applications Program Office (TAPO, the Army's Special Operations Aircraft program office) in developing requirements for major development/modification and for any future systems/subsystems; and management of the test and evaluation process in support of the airworthiness qualification process. The Airworthiness Certification program also performs general research and development in support of aircraft qualification and overarching airworthiness projects that involve multiple aircraft models. Current ongoing programs requiring airworthiness qualification are PEO Aviation and TAPO Future Force systems including Longbow Apache E-model; Chinook F-model; Blackhawk M-model and; Special Operations MH-47G and MH-60M; Light Utility Helicopter; Gray Eagle unmanned aircraft system (UAS); Enhanced Multi-sensor Airborne Reconnaissance and Sensor System (EMARSS); and modified Shadow UAS. Additionally the Airworthiness Certification program supports application of other critical aviation subsystems onto Army aircraft, including Aircraft Survivability Equipment (e.g. Advanced Threat Infrared Countermeasures (ATIRCM), Common Missile Warning System (CMWS), Aviation Mission Equipment (e.g. advanced multiband avionics and Tactical Radio Systems and digital data links), Common Sensor (electro-optical multi-spectrum visual sensor), and Blue Force Tracker. The D092 funding profile for the FY14 President's Budget Submission partially funds the airworthiness certification program and therefore the effort will be limited to resourcing military use civil derivative aircraft technical qualification through the Federal Aviation Administration's Military Certification Office; development of airworthiness procedures, specifications, critical standards, and other design and qualification documents; participation in senior leadership mandated airworthiness tri-service activities (e.g. National Airworthiness Council, Joint Aeronautical Commanders Group) and international airworthiness related activities mandated by treaty (e.g. Flight Into Non-segregated Airspace (FINAS); and limited early airworthiness involvement in Technology Transition projects (e.g. Joint Multi Role (JMR) Technology Demonstrator and Future Vertical Lift aircraft) and other OSD initiatives.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Certification Assessments and Studies Force Modernization Aircraft	0.050	0.050	0.040
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605606A / *AIRCRAFT CERTIFICATION*	**Project (Number/Name)** 092 / *Aircraft Certification*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Perform assessments and studies in support of Force Modernization Aircraft Systems ***FY 2013 Accomplishments:*** Conducted technical and airworthiness qualification assessments and studies to demonstrate airworthiness and system performance for Army force modernization aircraft systems or multi-system programs (e.g. AH-64 Block III, UH-60M, MH-47G, MH-60M, AAS, etc). ***FY 2014 Plans:*** Conduct technical and airworthiness qualification assessments and studies to demonstrate airworthiness and system performance for Army force modernization aircraft systems or multi-system programs (e.g. AH-64E, UH-60M, MH-47G, MH-60M, AAS, etc). ***FY 2015 Plans:*** Will conduct technical and airworthiness qualification assessments and studies to demonstrate airworthiness and system performance for Army force modernization aircraft systems or multi-system programs (e.g. AH-64E, UH-60M, MH-47G, MH-60M, etc).			
Title: Certification Requirements and Studies for Future Aircraft	0.773	0.975	0.603
Articles:	-	-	-
Description: Perform studies to support airworthiness certification requirements for Future Aircraft Systems ***FY 2013 Accomplishments:*** Conducted studies of Airworthiness Certification requirements for future aircraft systems and other technology transition programs (e.g. Joint Multi-Role Aircraft, Versatile Affordable Advanced Turbine Engine Program) ***FY 2014 Plans:*** Conduct studies of Airworthiness Certification requirements for future aircraft systems and other technology transition programs (e.g. Joint Multi-Role Technology Demonstrator, Versatile Affordable Advanced Turbine Engine Program) ***FY 2015 Plans:*** Will conduct studies of Airworthiness Certification requirements for future aircraft systems and other technology transition programs (e.g. Joint Multi-Role Technology Demonstrator Aircraft, Future Vertical Lift Aircraft, Improved Turbine Engine Program)			
Title: Design Standards	2.447	2.997	2.632
Articles:	-	-	-
Description: Support the development, implementation and maintenance to support Army Aeronautical Design Standards, airworthiness procedures and tools, and overarching Airworthiness qualification documentation			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605606A / *AIRCRAFT CERTIFICATION*	**Project (Number/Name)** 092 / *Aircraft Certification*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Developed, implemented, and maintained Army Aeronautical Design Standards, airworthiness procedures and tools, and overarching airworthiness qualification documentation. ***FY 2014 Plans:*** Develop, implement, and maintain Army Aeronautical Design Standards, airworthiness procedures and tools, and overarching airworthiness qualification documentation. ***FY 2015 Plans:*** Will develop, implement, and maintain Army Aeronautical Design Standards, airworthiness procedures and tools, and overarching airworthiness qualification documentation.			
Title: Certification Assessments of Technology Upgrades ***Articles:*** ***Description:*** Perform certification assessments of technology upgrades. ***FY 2013 Accomplishments:*** Conducted technical and airworthiness certification assessments of technology upgrades to Army force modernization aircraft systems or programs (e.g. Advanced Threat Infrared Countermeasures integration, Common Missile Warning System integration, Common Sensor integration) ***FY 2014 Plans:*** Conduct technical and airworthiness certification assessments of technology upgrades to Army force modernization aircraft systems or programs (e.g. Advanced Threat Infrared Countermeasures integration, Common Missile Warning System integration, Common Sensor integration) ***FY 2015 Plans:*** Will conduct technical and airworthiness certification assessments of technology upgrades to Army force modernization aircraft systems or programs (e.g. Advanced Threat Infrared Countermeasures integration, Common Missile Warning System integration, Common Sensor integration)	0.050 -	0.050 -	0.040 -
Title: Commercial Derivative Aircraft ***Articles:*** ***Description:*** Technical and airworthiness qualification for Commercial Derivative Aircraft ***FY 2013 Accomplishments:***	0.548 -	0.550 -	0.420 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605606A / *AIRCRAFT CERTIFICATION*	**Project (Number/Name)** 092 / *Aircraft Certification*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Provided technical and airworthiness qualification for Commercial Derivative Aircraft through the Federal Aviation Administration ***FY 2014 Plans:*** Provide technical and airworthiness qualification for Commercial Derivative Aircraft through the Federal Aviation Administration ***FY 2015 Plans:*** Will provide technical and airworthiness qualification for Commercial Derivative Aircraft through the Federal Aviation Administration			
Title: Technology Advancement ***Articles:*** ***Description:*** Support efforts to establish and maintain aircraft safety for a fleet of aircraft. ***FY 2013 Accomplishments:*** Led and participated in national and international airworthiness certification committees, conferences and working groups responsible for establishing and maintaining aircraft safety for a fleet of aircraft (e.g. National Airworthiness Council, Joint Aviation Commanders Group, Joint Council on Aging Aircraft, Joint Propulsion Coordinating Committee, North Atlantic Treaty Organization (NATO) working groups, Air and Space Interoperability Council (ASIC) Working Groups, Global Air Traffic Management working groups). ***FY 2014 Plans:*** Lead and participate in national and international airworthiness certification committees, conferences and working groups responsible for establishing and maintaining aircraft safety for a fleet of aircraft (e.g. National Airworthiness Council, Joint Aviation Commanders Group, Joint Council on Aging Aircraft, Joint Propulsion Coordinating Committee, North Atlantic Treaty Organization (NATO) working groups, Air and Space Interoperability Council (ASIC) Working Groups, Global Air Traffic Management working groups). ***FY 2015 Plans:*** Will lead and participate in national and international airworthiness certification committees, conferences and working groups responsible for establishing and maintaining aircraft safety for a fleet of aircraft (e.g. National Airworthiness Council, Joint Aeronautical Commanders Group, Joint Propulsion Coordinating Committee, North Atlantic Treaty Organization (NATO) Airworthiness working groups, Air and Space Interoperability Council (ASIC) Airworthiness Working Groups, Global Air Traffic Management working groups).	1.390 -	1.400 -	0.965 -
Accomplishments/Planned Programs Subtotals	5.258	6.022	4.700

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605606A / *AIRCRAFT CERTIFICATION*	**Project (Number/Name)** 092 / *Aircraft Certification*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605702A / *Meteorological Support to RDT&E Activities*							
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	-	6.668	7.345	6.413	-	6.413	6.421	6.449	7.434	7.750	-	-
128: *Meteorological Support To RDT&E Activities*	-	6.668	7.345	6.413	-	6.413	6.421	6.449	7.434	7.750	-	-

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

Note

FY13 adjustments attributed to Congressional General Reductions (-15 thousand); SBIR/STTR transfers (-113 thousand); and Sequestration reductions (-606 thousand). FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

All functions and resources in this Program Element (PE) are managed by the U.S. Army Test and Evaluation Command (ATEC). Meteorological support to research, development, test, and evaluation (RDT&E) activities provides standard and specialized weather forecasts and data for test reports to satisfy Army/Department of Defense RDT&E test requirements for modern weaponry, e.g., (1) unique atmospheric analysis and sampling to include atmospheric transmittance, extinction, optical scintillation, infrared temperature, aerosol/smoke cloud dispersion characteristics, and ballistic meteorological measurements; (2) test event forecasting to include prediction of sound propagation for ballistic firing tests, specialized prediction of light levels and target to background measurements, and predictions for electro-optical testing and ballistic artillery/mortar firing; and (3) advisory and warning products such as go/no-go test recommendations for ballistic and atmospheric probe missiles, smoke/obscurant tests, hazard predictions for chemical agent munitions disposal, monitoring dispersion of simulant clouds for chemical/biological detector tests, simulated nuclear blasts, and weather warnings for test range safety. Provides technical support to Army Program Executive Officers (PEOs), Project Managers (PMs), and the Army test ranges and sites at: White Sands Missile Range (WSMR), New Mexico; Electronic Proving Ground (EPG), Fort Huachuca, Arizona; Dugway Proving Ground (DPG), Utah; Aberdeen Test Center (ATC), Aberdeen Proving Ground, Maryland; Redstone Test Center (RTC), Redstone Arsenal, Alabama; Yuma Proving Ground (YPG), Arizona (including the Cold Regions Test Center (CRTC), Fort Greely, AK); Operational Test Command (OTC), Fort Hood, Texas and Fort Bragg, North Carolina; Fort Belvoir, Virginia; and Fort A.P. Hill, Virginia. This program develops methodologies and acquires instrumentation and systems that allow meteorological teams to support current and future Army/DoD RDT&E requirements. It finances indirect meteorological support operating costs not billable to customers and replacement/upgrade of meteorological instrumentation and support systems. Direct costs for meteorological support services are not funded by this PE, but are borne by the customer (i.e., materiel/weapons developers and project/product managers) in accordance with DoD Directive 7000.14R, October 1999. This program enables more effective test scheduling and execution, and is essential to the accomplishment of the Army's developmental test mission in that precise weather modeling and measurements directly influence test item performance and quantify test item weather dependencies and vulnerabilities.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*			R-1 Program Element (Number/Name) PE 0605702A / *Meteorological Support to RDT&E Activities*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	7.402	7.349	7.240	-	7.240
Current President's Budget	6.668	7.345	6.413	-	6.413
Total Adjustments	-0.734	-0.004	-0.827	-	-0.827
• Congressional General Reductions	-0.015	-0.004			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.113	-			
• Adjustments to Budget Years	-	-	-0.827	-	-0.827
• Other Adjustments	-0.606	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605702A / *Meteorological Support to RDT&E Activities*	Project (Number/Name) 128 / *Meteorological Support To RDT&E Activities*	

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
128: *Meteorological Support To RDT&E Activities*	-	6.668	7.345	6.413	-	6.413	6.421	6.449	7.434	7.750	-	-
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 meteorological support to research, development, test, and evaluation (RDT&E) activities and provides standard and specialized weather forecasts and data for test reports to satisfy Army/Department of Defense RDT&E test requirements for modern weaponry, e.g., (1) unique atmospheric analysis and sampling to include atmospheric transmittance, extinction, optical scintillation, infrared temperature, aerosol/smoke cloud dispersion characteristics, and ballistic meteorological measurements; (2) test event forecasting to include prediction of sound propagation for ballistic firing tests, specialized prediction of light levels and target to background measurements, and predictions for electro-optical testing and ballistic artillery/mortar firing; and (3) advisory and warning products such as go/no-go test recommendations for ballistic and atmospheric probe missiles, smoke/obscurant tests, hazard predictions for chemical agent munitions disposal, monitoring dispersion of simulant clouds for chemical/biological detector tests, simulated nuclear blasts, and weather warnings for test range safety. Provides technical support to Army Program Executive Officers (PEOs), Project Managers (PMs), and the Army test ranges and sites at: White Sands Missile Range (WSMR), New Mexico; Electronic Proving Ground (EPG), Fort Huachuca, Arizona; Dugway Proving Ground (DPG), Utah; Aberdeen Test Center (ATC), Aberdeen Proving Ground, Maryland; Redstone Test Center (RTC), Redstone Arsenal, Alabama; Yuma Proving Ground (YPG), Arizona (including the Cold Regions Test Center (CRTC), Fort Greely, AK); Operational Test Command (OTC), Fort Hood, Texas and Fort Bragg, North Carolina; Fort Belvoir, Virginia; and Fort A.P. Hill, Virginia. This program develops methodologies and acquires instrumentation and systems that allow meteorological teams to support current and future Army/DoD RDT&E requirements. It finances indirect meteorological support operating costs not billable to customers and replacement/upgrade of meteorological instrumentation and support systems. Direct costs for meteorological support services are not funded by this PE, but are borne by the customer (i.e., materiel/weapons developers and project/product managers) in accordance with DoD Directive 7000.14R, October 1999. This program enables more effective test scheduling and execution, and is essential to the accomplishment of the Army's developmental test mission in that precise weather modeling and measurements directly influence test item performance and quantify test item weather dependencies and vulnerabilities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Civilian Pay and Support Costs	2.283	2.353	2.054
Articles:	-	-	-
Description: Funding is provided for the following effort			
FY 2013 Accomplishments: Provided indirect costs (personnel salaries) for generating weather forecasts, severe weather warnings and advisories; staff meteorological services; and atmospheric measurements in support of Army/DoD tests and projects at nine Army sites/test			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605702A / *Meteorological Support to RDT&E Activities*	**Project (Number/Name)** 128 / *Meteorological Support To RDT&E Activities*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
ranges, and alternate test sites as required. Provided program management for meteorological support to the Army research, development, test and evaluation community and technical review/assistance to ranges and meteorological support teams. Included collaboration between Army meteorologists and the National Center for Atmospheric Research (NCAR) toward improvements to the Four-Dimensional Weather (4DWX) System. ***FY 2014 Plans:*** Providing indirect costs (personnel salaries) for generating weather forecasts, severe weather warnings and advisories; staff meteorological services; and atmospheric measurements in support of Army/DoD tests and projects at nine Army sites/test ranges, and alternate test sites as required. Providing program management for meteorological support to the Army research, development, test and evaluation community and technical review/assistance to ranges and meteorological support teams. Including Verification, Validation and Accreditation (VV&A) for the Four-Dimensional Weather (4DWX) System. ***FY 2015 Plans:*** Will provide indirect costs (personnel salaries) for generating weather forecasts, severe weather warnings and advisories; staff meteorological services; and atmospheric measurements in support of Army/DoD tests and projects at nine Army sites/test ranges, and alternate test sites as required. Will provide program management for meteorological support to the Army research, development, test and evaluation community and technical review/assistance to ranges and meteorological support teams. Will include collaboration between Army meteorologists and the National Center for Atmospheric Research (NCAR) toward improvements to the Four-Dimensional Weather (4DWX) System.			
Title: Four Dimensional Weather System (4DWX) and Instrumentation	4.385	4.992	4.359
Articles:	-	-	-
Description: Provides funding for meteorological instrumentation and technology to support RDT&E activities at Army test ranges. Includes funding for development and enhancement of the 4DWX system, an advanced meteorological support system that provides high-resolution weather forecasts and analyses. The 4DWX analyses and forecasts of the 3-dimensional structure of the atmosphere over time (4th dimension) are used in test planning, conduct, and forensic analyses. ***FY 2013 Accomplishments:*** Provided 4DWX system enhancements and modernization to improve forecast accuracy in support of Army RDT&E mission requirements, including selection of probabilistic modeling approach, improved data assimilation procedures, and configuration of 4DWX for each test range to optimize accuracy; and development of a Verification & Validation (V&V) plan for 4DWX. Instrumentation funding was used to continue a multiyear effort to replace/upgrade obsolete instrumentation, including upper-air sounding systems, upgrades to weather stations, renovation of radar wind profilers, replacement of Doppler acoustic sounders			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605702A / *Meteorological Support to RDT&E Activities*	**Project (Number/Name)** 128 / *Meteorological Support To RDT&E Activities*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
(wind profile measurements), and relocation of sodar systems (equipment to measure vertical weather profiles) between ranges to maximize use of equipment. ***FY 2014 Plans:*** Continue 4DWX system enhancements and modernization in development of ensemble modeling, improved parameterizations of wind flow over mountains and other complex terrain features to improve forecast accuracy; and development of new 4DWX-based techniques to generate weather data in vertical profiles, to reduce the need for some weather balloon launches. Instrumentation funding is used to continue a multiyear effort to replace/upgrade obsolete instrumentation, including upper-air sounding systems, upgrades to weather stations, renovation of radar wind profilers, replacement of Doppler acoustic sounders (wind profile measurements), and relocation of sodar systems (equipment to measure vertical weather profiles) between ranges to maximize use of equipment. Continue the development and enhancement of the 4DWX system in support of of Army RDT&E mission requirements. ***FY 2015 Plans:*** Will continue 4DWX system enhancements and modernization to improve forecast accuracy in support of Army RDT&E mission requirements, including development of probabilistic modeling, development and use of improved parameterizations of wind flow over complex terrain features; improved data assimilation procedures, and configuration of 4DWX for each test range to optimize accuracy; and development and implementation of a Verification & Validation system for 4DWX. Instrumentation funding will be used to continue a multiyear effort to replace/upgrade obsolete instrumentation, including upper-air sounding systems, upgrades to weather stations, renovation of radar wind profilers, replacement of Doppler acoustic sounders (wind profile measurements), and relocation of sodar systems (equipment to measure vertical weather profiles) between ranges to maximize use of equipment.			
Accomplishments/Planned Programs Subtotals	6.668	7.345	6.413

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605706A / *MATERIEL SYSTEMS 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**
Total Program Element	-	18.622	19.799	20.746	-	20.746	20.505	20.276	20.611	20.105	-	-
541: *Materiel Sys Analysis*	-	18.622	19.799	20.746	-	20.746	20.505	20.276	20.611	20.105	-	-

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

A. Mission Description and Budget Item Justification

This program element funds Department of the Army (DA) civilians at the Army Materiel Systems Analysis Activity (AMSAA) to conduct responsive and effective materiel systems analysis in support of senior Army decision making for equipping the U.S. Army. AMSAA conducts systems and engineering analyses to support Army decisions in technology; materiel acquisition; and the design, development, fielding, and sustaining of Army weapon/materiel systems. As part of this mission, AMSAA develops and certifies systems performance data used in Army studies, and develops baseline systems performance methodology and Models and Simulations (M&S).

AMSAA exercises HQDA responsibility for verification, validation, and accreditation of item-level performance M&S for combat effects, including the development and maintenance of common data formats. Similarly, AMSAA also exercises HQDA responsibility for developing, maintaining, improving, verifying, validating and accrediting item-level performance data and M&S for combat effects and logistics. In support of its materiel systems analysis mission, AMSAA analyzes the performance and combat effectiveness of conceptual, developmental, and fielded systems. Unique models and methodologies have been developed to predict critical performance variables, such as weapon accuracy, target acquisition, rate of fire, and probability of inflicting catastrophic damage, survivability, mobility and system reliability. AMSAA generates performance and effectiveness measures and ensures their standard use across major Army and Joint studies. AMSAA conducts and supports various systems analysis efforts across the entire materiel system life cycle, such as: Analysis of Alternatives (AoAs); system cost/performance tradeoffs and early technology trade-offs to inform system and acquisition program risk assessments; weapons/systems mix analyses; business case analyses and cost benefit analyses; requirements analyses; technology insertion studies; reliability growth studies; Physics of Failure (PoF) analyses; and analytical support for Test and Evaluation. AMSAA also maintains, pursuant to Army Acquisition Executive direction, the Center for Army Acquisition and Materiel Lessons Learned (CAAMLL). These analyses are used by the Army Research, Development and Engineering Command; Army Materiel Command; Training and Doctrine Command; Army Test and Evaluation Command; Program Executive Officers/Project Managers; Headquarters, Department of the Army (HQDA) (both Army Staff and Assistant Secretaries in the HQDA Secretariat); and Office of Secretary of Defense (OSD)/Department of Defense (DoD) Leadership. AMSAA analyses and data are used by these organizations in making acquisition, procurement, and logistics decisions in order to provide quality equipment and procedures to the Soldier.

AMSAA's M&S capabilities support the development, linkage, and accreditation of live, virtual, and constructive simulations, and provide unique tools that support systems analysis of individual systems and the combined-arms environment. AMSAA maintains a significant number of models and simulations, most of which were developed in-house to address specific analytical requirements. This M&S infrastructure provides a hierarchical modeling process that is unique to AMSAA and allows for a comprehensive performance and effectiveness prediction capability that can be utilized to make trade-off and investment decisions prior to extensive and expensive hardware testing of proposed systems/technologies for Current and Future Force efforts. AMSAA is the Army's executive agent for the verification, validation, and accreditation of item/system level performance models. In this role, AMSAA assists model developers with the development and execution of verification and validation plans to ensure new models and simulations provide credible information/results for decision making.

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 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605706A *I MATERIEL SYSTEMS ANALYSIS*

AMSAA exercises HQDA responsibility for Army reliability methodology development. In this role, as the Army's Executive Agent for reliability and maintainability standardization improvement, AMSAA develops and implements reliability and maintainability reform initiatives that support acquisition decisions and lifecycle management. AMSAA develops and applies engineering approaches that assess the reliability of Army materiel and also provides recommendations on ways to improve reliability, thereby reducing logistics footprint, reducing life cycle costs, and extending failure-free periods for deployed equipment. AMSAA's electronic and mechanical Physics of Failure (PoF) program pioneered the Army's involvement in utilizing computer-aided engineering tools in the analysis of root-cause failure mechanisms at the component level during the system design process. AMSAA's reliability engineering and PoF tools/analyses have been used extensively to support the design improvement of developmental and fielded systems used in Current Operations resulting in improved reliability, reduced Operational and Support costs, and reduced logistics expenditures and footprint. AMSAA, in conjunction with the Army Evaluation Center, has formed the Center for Reliability Growth (CRG), which is developing critical tools, methodology, policies, formal guidance, and educational materials needed to help acquisition programs to achieve their required reliability during the acquisition process. The reliability improvements achieved for major weapon systems will translate into billions of dollars in operating and support cost savings across the life cycle.

AMSAA's unique analytical capabilities are supporting the Army Evaluation Center to assess and determine the essential analytical requirements to enhance Army evaluations and reduce extensive testing. AMSAA's support in this area improves evaluation products and result in better materiel solutions to the Warfighter. AMSAA assists in systems evaluations which support various Acquisition Category (ACAT) materiel system decisions, and provides quick response analyses in support of rapid initiatives for Current Operations.

As the Army's center for materiel systems analysis, AMSAA provides the technical capability to support Army and DoD decision makers throughout the entire acquisition process in responding to analytical requirements across the full spectrum of materiel. AMSAA's unique in-house, consistent, integrated analytical capability is a critical asset that provides Army leadership with timely, independent, unbiased, reliable, and high quality analysis to support complex decisions required for Army Transformation and Current Operations. AMSAA's integrated set of skills and tools are focused on its core mission to be responsive to the breadth and depth of systems analysis requirements critical in supporting Army decisions.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	19.954	19.809	19.138	-	19.138
Current President's Budget	18.622	19.799	20.746	-	20.746
Total Adjustments	-1.332	-0.010	1.608	-	1.608
• Congressional General Reductions	-0.052	-0.010			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.076	-			
• Adjustments to Budget Years	-	-	1.608	-	1.608

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 6: *RDT&E Management Support*		R-1 Program Element (Number/Name) PE 0605706A *I MATERIEL SYSTEMS ANALYSIS*			
• Other Adjustments	-1.204	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605706A / *MATERIEL SYSTEMS ANALYSIS*				Project (Number/Name) 541 / *Materiel Sys 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**
541: *Materiel Sys Analysis*	-	18.622	19.799	20.746	-	20.746	20.505	20.276	20.611	20.105	-	-
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 funds Department of the Army (DA) civilians at the Army Materiel Systems Analysis Activity (AMSAA) to conduct responsive and effective materiel systems analysis in support of senior Army decision making for equipping the U.S. Army. AMSAA conducts systems and engineering analyses to support Army decisions in technology; materiel acquisition; and the design, development, fielding, and sustaining of Army weapon/materiel systems. As part of this mission, AMSAA develops and certifies systems performance data used in Army studies, and develops baseline systems performance methodology and Models and Simulations (M&S).

AMSAA exercises HQDA responsibility for verification, validation, and accreditation of item-level performance M&S for combat effects, including the development and maintenance of common data formats. Similarly, AMSAA also exercises HQDA responsibility for developing, maintaining, improving, verifying, validating and accrediting item-level performance data and M&S for combat effects and logistics. In support of its materiel systems analysis mission, AMSAA analyzes the performance and combat effectiveness of conceptual, developmental, and fielded systems. Unique models and methodologies have been developed to predict critical performance variables, such as weapon accuracy, target acquisition, rate of fire, and probability of inflicting catastrophic damage, survivability, mobility and system reliability. AMSAA generates performance and effectiveness measures and ensures their standard use across major Army and Joint studies. AMSAA conducts and supports various systems analysis efforts across the entire materiel system life cycle, such as: Analysis of Alternatives (AoAs); system cost/performance tradeoffs and early technology trade-offs to inform system and acquisition program risk assessments; weapons/systems mix analyses; business case analyses and cost benefit analyses; requirements analyses; technology insertion studies; reliability growth studies; Physics of Failure (PoF) analyses; and analytical support for Test and Evaluation. AMSAA also maintains, pursuant to Army Acquisition Executive direction, the Center for Army Acquisition and Materiel Lessons Learned (CAAMLL). These analyses are used by the Army Research, Development and Engineering Command; Army Materiel Command; Training and Doctrine Command; Army Test and Evaluation Command; Program Executive Officers/Project Managers; Headquarters, Department of the Army (HQDA) (both Army Staff and Assistant Secretaries in the HQDA Secretariat); and Office of Secretary of Defense (OSD)/Department of Defense (DoD) Leadership. AMSAA analyses and data are used by these organizations in making acquisition, procurement, and logistics decisions in order to provide quality equipment and procedures to the Soldier.

AMSAA's M&S capabilities support the development, linkage, and accreditation of live, virtual, and constructive simulations, and provide unique tools that support systems analysis of individual systems and the combined-arms environment. AMSAA maintains a significant number of models and simulations, most of which were developed in-house to address specific analytical requirements. This M&S infrastructure provides a hierarchical modeling process that is unique to AMSAA and allows for a comprehensive performance and effectiveness prediction capability that can be utilized to make trade-off and investment decisions prior to extensive and expensive hardware testing of proposed systems/technologies for Current and Future Force efforts. AMSAA is the Army's executive agent for the verification, validation, and accreditation of item/system level performance models. In this role, AMSAA assists model developers with the development and execution of verification and validation plans to ensure new models and simulations provide credible information/results for decision making.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605706A / *MATERIEL SYSTEMS ANALYSIS*	**Project (Number/Name)** 541 / *Materiel Sys Analysis*

AMSAA exercises HQDA responsibility for Army reliability methodology development. In this role, as the Army's Executive Agent for reliability and maintainability standardization improvement, AMSAA develops and implements reliability and maintainability reform initiatives that support acquisition decisions and lifecycle management. AMSAA develops and applies engineering approaches that assess the reliability of Army materiel and also provides recommendations on ways to improve reliability, thereby reducing logistics footprint, reducing life cycle costs, and extending failure-free periods for deployed equipment. AMSAA's electronic and mechanical Physics of Failure (PoF) program pioneered the Army's involvement in utilizing computer-aided engineering tools in the analysis of root-cause failure mechanisms at the component level during the system design process. AMSAA's reliability engineering and PoF tools/analyses have been used extensively to support the design improvement of developmental and fielded systems used in Current Operations resulting in improved reliability, reduced Operational and Support costs, and reduced logistics expenditures and footprint. AMSAA, in conjunction with the Army Evaluation Center, has formed the Center for Reliability Growth (CRG), which is developing critical tools, methodology, policies, formal guidance, and educational materials needed to help acquisition programs to achieve their required reliability during the acquisition process. The reliability improvements achieved for major weapon systems will translate into billions of dollars in operating and support cost savings across the life cycle.

AMSAA's unique analytical capabilities are supporting the Army Evaluation Center to assess and determine the essential analytical requirements to enhance Army evaluations and reduce extensive testing. AMSAA's support in this area improves evaluation products and result in better materiel solutions to the Warfighter. AMSAA assists in systems evaluations which support various Acquisition Category (ACAT) materiel system decisions, and provides quick response analyses in support of rapid initiatives for Current Operations.

As the Army's center for materiel systems analysis, AMSAA provides the technical capability to support Army and DoD decision makers throughout the entire acquisition process in responding to analytical requirements across the full spectrum of materiel. AMSAA's unique in-house, consistent, integrated analytical capability is a critical asset that provides Army leadership with timely, independent, unbiased, reliable, and high quality analysis to support complex decisions required for Army Transformation and Current Operations. AMSAA's integrated set of skills and tools are focused on its core mission to be responsive to the breadth and depth of systems analysis requirements critical in supporting Army decisions.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Materiel Systems Analysis	18.622	19.799	20.746
Articles:	-	-	-
Description: These funds are used by the US Army Materiel Systems Analysis Activity (AMSAA) to conduct various materiel systems analysis efforts in support of senior Army decision makers during FY13-19. AMSAA will continue to conduct analyses, materiel systems performance data generation and certification, methodology development, Modeling and Simulation (M&S) development, and verification, validation, and accreditation. The accomplishments include performance and combat effectiveness analyses of materiel systems and technology base programs for the Department of Army Secretariat/Staff, the Army Materiel Command, the Research, Development and Engineering Command, Program Executive Officers/Program Managers, the Training and Doctrine Command, the Army Service Component Commands, the Army Test and Evaluation Command, and the Office of the Secretary of Defense (OSD). These analyses form the basis for Analysis of Alternatives (AoAs), system cost/performance			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605706A / *MATERIEL SYSTEMS ANALYSIS*	**Project (Number/Name)** 541 / *Materiel Sys Analysis*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015

tradeoffs, early technology trade-offs, weapons/systems mix analyses, system risk assessments, business case analyses, cost benefit analyses, requirements analyses, technology insertion studies, reliability growth studies, Physics of Failure (PoF) analyses and analytical support for Test and Evaluation.

FY 2013 Accomplishments:

Critical AMSAA analyses continued to support Army Modernization efforts and key milestone decision reviews for conceptual and developmental (Acquisition Category (ACAT) 1, ACAT 2 and ACAT 3) programs. AMSAA conducted follow-on studies for major Army programs as required and continued to provide essential certified weapons system performance data for all major Army studies. AMSAAs technical work program relating to Analyses of Alternative (AoA) (both providing analysis inputs and certified data as well as leading specified AoAs), Business Case Analyses, Cost Benefit Analyses and Risk Assessments continued to increase substantially (from already high levels in fiscal year 2011 and fiscal year 2012) as a result of DOD/DA efforts to meet the requirements laid out in the Weapons System Acquisition Reform Act (WSARA) of 2009. Efforts continued on current operations and Irregular Warfare (IW) related tasks, analyses, and model enhancements. AMSAA is fully operational as a key part of the Army Center for Reliability Growth (CRG). The CRG is developing critical tools, methodology, policies, formal guidance and educational materials needed to assist acquisition programs achieve and/or stay on their required reliability growth curves, thus leading to increased system reliability and reduced operating and support costs. AMSAA achieved Full Operational Capability (FOC) of the Center for Army Acquisition Lessons Learned (CAALL) by the end of fiscal year 2013, as directed by Army Acquisition Executive memo dated 8 January 2012, to fully operationalize and implement its acquisition risk assessment and cost, schedule and system performance trade-space analysis capability. AMSAA continued to enhance its comprehensive set of essential verified and validated item/system level methodologies, tools, and models and simulations to insure accurate and up-to-date analytical products across the full spectrum of Army capability/commodity areas.

FY 2014 Plans:

Critical analyses from the US Army Materiel Systems Analysis Activity (AMSAA) continue supporting Army Modernization efforts and key milestone decision reviews. AMSAA supports conceptual and developmental Acquisition Category (ACAT) 1, ACAT 2 and ACAT 3) programs, including but not limited to the Armored Multipurpose Vehicle, Armed Aerial Scout, Improved Turbine Engine, Joint Light Tactical Vehicle, Electronic Warfare and Indirect Fire Protection. AMSAA is conducting follow-on studies for major Army programs undergoing engineering change proposals (such as Abrams, Bradley and Stryker), and continues to provide essential certified weapons system performance data for all major Army studies. AMSAAs technical work program relating to Analyses of Alternative (AoA) (both providing analytic input and certified data as well as leading specified AoAs), Business Case Analyses, Cost Benefit Analyses and Risk Assessments continues to increase as a result of DOD/DA efforts to meet the requirements laid out in the 2009 Weapons System Acquisition Reform Act. Efforts continue on current operations related tasks, analyses, and model enhancements, specifically those supporting system performance data development, operational energy, and retrograde analysis. AMSAA is fully operational as a key part of the Army Center for Reliability Growth (CRG). The CRG

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605706A / *MATERIEL SYSTEMS ANALYSIS*	**Project (Number/Name)** 541 / *Materiel Sys Analysis*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
develops critical tools, methodology, and policy guidance to enable acquisition programs achievement of required reliability growth targets, thus leading to increased system reliability and reduced operating and support costs. The Center for Army Acquisition and Materiel Lessons Learned (CAAMLL), which achieved Full Operational Capability at the end of fiscal year 2013 (as directed by Army Acquisition Executive memo dated 8 January 2012), will for the first time provide the Army a one-stop repository of data, information and lessons learned from historical materiel acquisition efforts. Additionally, CAAMLL FOC will fully operationalize and implement AMSAAs acquisition risk assessment and cost, schedule and system performance trade space analysis capability. Together, these two efforts (a repository and trade-space analysis) will enable the Army to fully implement several key Decker-Wagner report recommendations as directed by the Secretary of the Army on 15 July 2011. AMSAA continues to enhance its comprehensive set of essential verified and validated item/system level methodologies, tools, and models and simulations to insure accurate and up-to-date analytical products across the full spectrum of Army capability/commodity areas. ***FY 2015 Plans:*** Critical analyses from the US Army Materiel Systems Analysis Activity (AMSAA) continue to support Army key milestone decision reviews. AMSAA supports conceptual and developmental Acquisition Category (ACAT) 1, ACAT 2, ACAT 3, and ACAT 4) programs, including but not limited to Improved Turbine Engine, Man Transportable Robotic System, Next Generation Diagnostic System, Personnel Decontamination, Pre-emptive Threat Detection, and the Maneuver Support Vessel-Light. In addition, AMSAA will support multiple trade-space efforts in support of the Deputy Under Secretary of the Army for Test and Evaluation (DUSA-TE), and provide analytical support to modify Test and Evaluation planning efforts, and reduce testing through the use of modeling and simulation. AMSAA will conduct follow-on studies for major Army programs undergoing engineering change proposals and continue to provide essential certified weapons system performance data for all major Army studies. AMSAAs technical work program relating to Analyses of Alternative (AoA) (both providing analytic input and certified data as well as leading specified AoAs), Business Case Analyses, Cost Benefit Analyses and Risk Assessments will continue at a high level (similar to FY12 through FY14) as a result of DOD/DA efforts to meet the requirements laid out in the 2009 Weapons System Acquisition Reform Act. AMSAA is anticipating an increase in analytical support to Army ACAT 3, and ACAT 4 systems due to budget restrictions and financial limitations. AMSAA will continue efforts in support of the Army Center for Reliability Growth (CRG), the Center for Army Acquisition and Materiel Lessons Learned (CAAMLL) as well as efforts on current operations related tasks, analyses, and model enhancements, specifically those supporting system performance data development, and materiel system performance analysis. AMSAA will continue to enhance its comprehensive set of essential verified and validated item/system level methodologies, tools, and models and simulations to insure accurate and up-to-date analytical products across the full spectrum of Army capability/commodity areas.			
Accomplishments/Planned Programs Subtotals	18.622	19.799	20.746

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605706A / *MATERIEL SYSTEMS ANALYSIS*	**Project (Number/Name)** 541 / *Materiel Sys Analysis*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605709A / *EXPLOITATION OF FOREIGN ITEMS*							
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	-	5.501	5.938	7.015	-	7.015	5.894	5.677	5.778	8.885	-	-
C28: *Acq/Exploit Threat Items (MIP)*	-	5.501	5.938	7.015	-	7.015	5.894	5.677	5.778	8.885	-	-

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

A. Mission Description and Budget Item Justification

This is a continuing program for the acquisition and exploitation of foreign materiel with potential advanced technology threats to US systems, as well as emerging and destructive threats such as cyber vulnerabilities, biometric systems, and evolving improvised explosive devices. The primary aim of the program is to maximize the efficiency of research and development for force and materiel development by reducing the uncertainties associated with these threats. The program also answers general scientific and technical intelligence requirements, provides materiel for realistic testing and training, and aids in the development of countermeasures to threat materiel and technologies. Operations have increased the amount of captured threat materiel that require immediate exploitation to develop countermeasures and force protection measures for US forces. Acquisition and exploitation are executed according to Army Foreign Materiel Program (FMP) Plan prioritization and with the approval of the Army Deputy Chief of Staff for Intelligence (G2).

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	5.535	5.941	7.141	-	7.141
Current President's Budget	5.501	5.938	7.015	-	7.015
Total Adjustments	-0.034	-0.003	-0.126	-	-0.126
• Congressional General Reductions	-0.008	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-0.126	-	-0.126
• Other Adjustments	-0.026	-0.003	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605709A / *EXPLOITATION OF FOREIGN ITEMS*	Project (Number/Name) C28 / *Acq/Exploit Threat Items (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
C28: *Acq/Exploit Threat Items (MIP)*	-	5.501	5.938	7.015	-	7.015	5.894	5.677	5.778	8.885	-	-
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 is a continuing program for the acquisition and exploitation of foreign materiel with potential advanced technology threats to US systems, as well as emerging and destructive threats such as cyber vulnerabilities, biometric systems, and evolving improvised explosive devices. The primary aim of the program is to maximize the efficiency of research and development for force and materiel development by reducing the uncertainties associated with these threats. The program also answers general scientific and technical intelligence requirements, provides materiel for realistic testing and training, and aids in the development of countermeasures to threat materiel and technologies. Operations have increased the amount of captured threat materiel that require immediate exploitation to develop countermeasures and force protection measures for US forces. Acquisition and exploitation are executed according to Army Foreign Materiel Program (FMP) Plan prioritization and with the approval of the Army Deputy Chief of Staff for Intelligence (G2).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Army FMP Acquisition	1.815	1.960	2.315
Articles:	-	-	-
Description: Funding is provided for the following effort			
FY 2013 Accomplishments: Continued to focus efforts toward the acquisition of threat-related foreign materiel systems and state-of-the-art technologies of military significance.			
FY 2014 Plans: Continue to focus efforts on the acquisition of threat related foreign materiel systems and state-of-the-art technologies of military significance.			
FY 2015 Plans: Will continue to focus efforts on the acquisition of threat related foreign materiel systems and state-of-the-art technologies of military significance.			
Title: FMP Exploitation	3.686	3.978	4.700
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605709A / *EXPLOITATION OF FOREIGN ITEMS*	**Project (Number/Name)** C28 / *Acq/Exploit Threat Items (MIP)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Funding is provided for the following effort ***FY 2013 Accomplishments:*** Initiated, continued, or completed exploitation projects on ground systems of Army interest identified in the appropriate Army FMP Exploitation Programs. ***FY 2014 Plans:*** Initiates, continues, or completes exploitation projects on ground systems of Army interest identified in the appropriate Army FMP Exploitation Programs. ***FY 2015 Plans:*** Will initiate, continue, and/or complete exploitation on foreign threat ground systems and technologies of Army interest as identified by Army FMP prioritization.			
Accomplishments/Planned Programs Subtotals	5.501	5.938	7.015

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605712A / *Support of Operational Testing*							
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	-	64.458	55.475	49.221	-	49.221	50.756	51.016	51.964	55.060	-	-
001: *ATEC Joint Tests And Follow-On Test & Eval*	-	3.351	0.162	-	-	-	-	-	-	-	-	-
V02: *ATEC Activities*	-	61.107	55.313	49.221	-	49.221	50.756	51.016	51.964	55.060	-	-

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

Note

FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

This Program Element provides the resources to operate the Army's operational test directorates located at Fort Hood, TX; Fort Bragg, NC; Fort Bliss, TX; Fort Huachuca, AZ; and Fort Sill, OK; all managed by the Operational Test Command (OTC), a subordinate command of the Army Test and Evaluation Command (ATEC). Project V02 currently provides support for the one Test and Evaluation Coordination Offices (TECO) located at Fort Leonard Wood, MO and one Infantry Support Cell at Fort Benning, GA. TECOs previously located in Fort Lee, VA and Fort Knox, KY have been consolidated in Fort Benning, GA.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	67.789	55.504	54.301	-	54.301
Current President's Budget	64.458	55.475	49.221	-	49.221
Total Adjustments	-3.331	-0.029	-5.080	-	-5.080
• Congressional General Reductions	-0.191	-0.029			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	3.000	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.507	-			
• Adjustments to Budget Years	-	-	-5.080	-	-5.080
• Other Adjustments	-5.633	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605712A / *Support of Operational Testing*	Project (Number/Name) 001 / *ATEC Joint Tests And Follow-On Test & Eval*	

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
001: *ATEC Joint Tests And Follow-On Test & Eval*	-	3.351	0.162	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

Army consolidated three Test and Evaluation Command Headquarters, Army Test and Evaluation Command (ATEC), Developmental Test Command (DTC), and Army Evaluation Center (AEC). As a result of this consolidation, ATEC aligned all requirements for Joint Tests and Follow-On Test and Evaluations, under one Program Element. Funds reprogrammed effective FY2014.

A. Mission Description and Budget Item Justification

This project funds the Army's direct costs of planning and conducting Multi-service Tests and Evaluations (MOTE) for which there is no Army Project Manager (PM) and Army requirements for Joint Test and Evaluation (JT&E). These are required to evaluate concepts and address needs and issues that occur in joint military environments and provide information required by Congress, Office of the Secretary of Defense, the Unified Commands, and the Department of Defense components relative to joint operations. This project also funds Follow-on Test and Evaluation (FOTE), as necessary. FOTE may be required after a full production decision to assess system training and logistics, to verify correction of deficiencies identified during earlier testing and evaluation, and to ensure that initial production items meet operational effectiveness, suitability and supportability thresholds. There has been a shift of focus for items funded by this project due to continuing operations in the US Central Command (CENTCOM). Traditional system workload has dropped off and has been replaced by rapid fielding initiatives. In response to this shift, the Army Test and Evaluation Command (ATEC) has established a forward operational assessment team in theater and a rapid response cell. These groups facilitate MOTE, JT&E, and FOTE events in the rapid environment. Traditional acquisition requirements are expected to return to normal when operations in Iraq and Afghanistan wind down.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Joint operational testing and evaluation.	0.760	0.162	-
Articles:	-	-	-
Description: Joint operational testing and evaluation			
FY 2013 Accomplishments: Provided funding to support OCO task force requirements (TDY, Civ Pay and associated overhead expenses). The majority of operational costs for HQ ATEC will be charged to Program Element 0605898AM65 in FY14 and beyond.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605712A / *Support of Operational Testing*	**Project (Number/Name)** 001 / *ATEC Joint Tests And Follow-On Test & Eval*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Provides funding to support OCO task force requirements (TDY, Civ Pay and associated overhead expenses). All operational costs for HQ ATEC will be charged to Program Element 0605898AM65 in FY15 and beyond.			
Title: Multi-Service Operational Test and Evaluation/Follow-on testing and evaluations	2.591	-	-
Articles:	-	-	-
Description: Funding is provided for Multi-Service Operational Test and Evaluation/Follow-on testing and evaluations ***FY 2013 Accomplishments:*** Fund Integrated broadcasting service spiral enterprise T&E			
Accomplishments/Planned Programs Subtotals	3.351	0.162	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605712A / *Support of Operational Testing*	Project (Number/Name) V02 / *ATEC Activities*	

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
V02: *ATEC Activities*	-	61.107	55.313	49.221	-	49.221	50.756	51.016	51.964	55.060	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

Army consolidated three Test and Evaluation Command Headquarters, Army Test and Evaluation Command (ATEC), Developmental Test Command (DTC), and Army Evaluation Center (AEC). As a result of this consolidation, ATEC aligned all requirements for the Operational Test Command (OTC), subordinate command to ATEC, under one Program Element. Funds reprogrammed effective FY2014.

A. Mission Description and Budget Item Justification

The Operational Test Command (OTC) conducts operational tests required by public law that provide significant data to the Army decision-makers on key Army systems and concepts. This project finances recurring costs for the Operational Test Command that are essential for conducting realistic and continuous testing in the critical areas of equipment, doctrine, force design and training. These recurring costs include civilian pay, requirements for test support contracts, temporary duty, supplies and equipment. This project funds requirements for the Operational Test Command's eight test directorates and one support activity located at Fort Hood, TX; Fort Bragg, NC; Fort Sill, OK/Ft. Bliss, TX; and Fort Huachuca, AZ. The primary mission of these test directorates is to perform detailed planning, execution, and reporting of Initial Operational Test and Evaluation (IOTE), and Force Development Test and Experimentation (FDTE). Project V02 currently provides support for the one Test and Evaluation Coordination Offices (TECOs) located at Fort Leonard Wood, MO and one Infantry Support Cell at Fort Benning, GA. TECOs previously located in Fort Lee, VA and Fort Knox, KY have been consolidated in Fort Benning, GA.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Operational Test Command (OTC) Activities	50.962	55.313	49.221
Articles:	-	-	-
Description: Operational costs including: civilian pay, support contracts, temporary duty, supplies and equipment for subordinate elements of the Operational Test Command.			
FY 2013 Accomplishments: Operational costs included civilian pay, support contracts, temporary duty, supplies and equipment for the Operational Test Command.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605712A / *Support of Operational Testing*	**Project (Number/Name)** V02 / *ATEC Activities*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Operational costs including: civilian pay, support contracts, temporary duty, supplies and equipment for the Operational Test Command. ***FY 2015 Plans:*** Operational costs will include civilian pay, support contracts, temporary duty, supplies and equipment for the Operational Test Command.			
Title: Operational cost for HQ ATEC activities	10.145	-	-
Articles:	-	-	-
Description: Operational costs for HQ ATEC including: civilian pay, support contracts, temporary duty, supplies and equipment for non-AMHA (Army Management Headquarters Activity) HQ ATEC. ***FY 2013 Accomplishments:*** Operational costs for HQ ATEC include civilian pay, support contracts, temporary duty, supplies and equipment for non-AMHA (Army Management Headquarters Activity) HQ ATEC. Funding transfered to 665898M65 in FY14			
Accomplishments/Planned Programs Subtotals	61.107	55.313	49.221

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605716A / *Army Evaluation Center*							
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	-	57.037	65.240	55.039	-	55.039	54.378	54.481	55.521	55.813	-	-
302: *Army Evaluation Center*	-	57.037	65.240	55.039	-	55.039	54.378	54.481	55.521	55.813	-	-

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

Note

FY13 adjustments attributed to Congressional General Reductions (-168 thousand); SBIR/STTR transfers (-583 thousand); and Sequestration reductions (-4.977 million).
FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

The Army Evaluation Center (AEC) provides independent and integrated technical and operational evaluations, and life-cycle Continuous Evaluation (CE) of assigned Major Defense Acquisition Programs (MDAP), Major Automated Information Systems, and In-Process Review (IPR) programs for major milestone decisions, materiel changes, and materiel releases in support of the Army Acquisition Executive, other Service Acquisition Executives, Joint Program Executive Officers, other governmental agencies, and force development. AEC is The Army's independent evaluator. AEC develops the evaluation strategy, designs tests, and evaluates the test results to address a system's combat effectiveness, suitability, and survivability factors pertinent to the decision process, such as: Critical Operational Issues and Criteria (COIC), system performance, soldier survivability, performance in countermeasures, system survivability, reliability, supportability, etc. AEC has the lead in planning and execution of Army Live Fire Tests and Continuous Evaluations through its evaluation and test design responsibilities. The evaluations produced by AEC are required by the Army Chief of Staff, the Army Acquisition Executive, other Army, Service, Joint, and agency senior leaders and the Department of Defense Director of Operational Test and Evaluation for acquisition decisions. In addition, Army leadership has recognized the numerous benefits of an early involvement initiative. Test management and safety verification is also supported by this program element.

This project funds the salaries of civilian employees conducting T&E early involvement, evaluation and test design missions and associated personnel support/ sustainment costs including: temporary duty, professional training, supplies, and equipment. This project does not finance test facility operations, test instrumentation or test 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 6: *RDT&E Management Support*		R-1 Program Element (Number/Name) PE 0605716A / *Army Evaluation Center*			
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	62.765	65.274	65.734	-	65.734
Current President's Budget	57.037	65.240	55.039	-	55.039
Total Adjustments	-5.728	-0.034	-10.695	-	-10.695
• Congressional General Reductions	-0.168	-0.034			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.583	-			
• Adjustments to Budget Years	-	-	-10.695	-	-10.695
• Other Adjustments	-4.977	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605716A / *Army Evaluation Center*	Project (Number/Name) 302 / *Army Evaluation Center*	

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
302: *Army Evaluation Center*	-	57.037	65.240	55.039	-	55.039	54.378	54.481	55.521	55.813	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

Army consolidated three Test and Evaluation Command Headquarters, Army Test and Evaluation Command (ATEC), Developmental Test Command (DTC), and Army Evaluation Center (AEC). As a result of this consolidation, ATEC aligned all requirements for the Army Evaluation Center (AEC), subordinate command to ATEC, under one Program Element. Funds reprogrammed effective FY2014.

A. Mission Description and Budget Item Justification

The Army Evaluation Center (AEC) provides independent and integrated technical and operational evaluations, and life-cycle Continuous Evaluation (CE) of assigned Major Defense Acquisition Programs (MDAP), Major Automated Information Systems, and In-Process Review (IPR) programs for major milestone decisions, materiel changes, and materiel releases in support of the Army Acquisition Executive, other Service Acquisition Executives, Joint Program Executive Officers, other governmental agencies, and force development. AEC is The Army's independent evaluator. AEC develops the evaluation strategy, designs tests, and evaluates the test results to address a system's combat effectiveness, suitability, and survivability factors pertinent to the decision process, such as: Critical Operational Issues and Criteria (COIC), system performance, soldier survivability, performance in countermeasures, system survivability, reliability, supportability, etc. AEC has the lead in planning and execution of Army Live Fire Tests and Continuous Evaluations through its evaluation and test design responsibilities. The evaluations produced by AEC are required by the Army Chief of Staff, the Army Acquisition Executive, other Army, Service, Joint, and agency senior leaders and the Department of Defense Director of Operational Test and Evaluation for acquisition decisions. In addition, Army leadership has recognized the numerous benefits of an early involvement initiative.

This project funds the salaries of civilian employees conducting T&E early involvement, evaluation and test design missions and associated personnel support/ sustainment costs including: temporary duty, professional training, supplies, and equipment. This project does not finance test facility operations, test instrumentation or test equipment.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Army Evaluation Center	53.615	65.240	55.039
Articles:	-	-	-
Description: Provide integrated technical and operational evaluations and continuous evaluation of assigned MDAPs and major automated information systems for major milestone decisions, materiel changes, and materiel releases in support of the Army Acquisition Executive and force development. Develop the evaluation strategy, design technical and operational tests, and evaluate the test results to address the combat effectiveness, suitability, and survivability factors pertinent to the decision process, for programs such as Mine resistant Ambush Protected Vehicle (MRAP), Global Command and Control System - Army (GCCS-A), Warfighter Information Network- Tactical (WIN-T), Stryker, High Mobility Artillery Rocket System (HIMARS), Land Warrior (LW),			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605716A / *Army Evaluation Center*	**Project (Number/Name)** 302 / *Army Evaluation Center*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
General Fund Enterprise Business System (GFEBS), Joint Tactical Radio System (JTRS), Patriot and Patriot Advanced Capability (PAC 3), Integrated Air and Missile Defense (IAMD), Family of Medium Tactical Vehicles (FMTV), Excalibur, Longbow Apache, and Distributed Common Ground System - Army (DCSG-A) (plus hundreds of other sytems/programs across The Army). Prepare integrated System Evaluation Plans and conduct integrated technical and operational evaluations for all Army weapon systems. In support of Overseas Contingency Operations (OCO), AEC has continued its workload focus towards the evaluation of Rapid Initiative (RI) systems, Counter Improvised Explosive Device (IED) systems, and Urgent Material Releases. Includes civilian pay costs for the Army Evaluation Center. ***FY 2013 Accomplishments:*** Provided integrated technical and operational evaluations and continuous evaluation of assigned MDAPs and major automated information systems for major milestone decisions, materiel changes, and materiel releases in support of the Army Acquisition Executive and force development. Continued to prepare integrated System Evaluation Plans and conduct integrated technical and operational evaluations for all Army weapon systems. To include civilian pay costs for 386 authorizations for FY 13 (equates to approximately 94% of AEC's total budget). Additionally, provide Underbody Blast Modeling and Simulation support to provide early identification of vehicle improvements that directly impact Soldier survivability; improves test design; provides additional evaluation data to support acquisition. Endstate is to have a valid, accredited model to evalute crew survivability. Also, provide Center for Reliability and Growth in response to DUSD (ATL) and AAE policies mandating Reliability Growth programs and periodic assessments for major systems. These DOD and DA policies became Public Law 111-23 (The Weapon System Reform Act of 2009 - signed 22 May 2009). The Law emphasizes that the service acquisition executive must ensure acquisition personnel have appropriate training and expertise to formulate robust RAM growth programs. The policies and Law are a result of a Defense Science Board report on Developmental Test and Evaluation (May 2008), showing that there has been a significant increase in the number of Department of Defense weapon system programs evaluated as not being operationally suitable. The report shows that about two thirds of Army systems from 1997 to 2006 failed to meet their realiability requirements during operational testing - primarily due to lack of material readiness due to poor system reliability and maintenance (RAM). Funding provided resources dedicated to developing critical tools, methodologies, policies, formal guidance, and educational materials required to implement new policies and improve weapon system reliability. ***FY 2014 Plans:*** Provide integrated technical and operational evaluations and continuous evaluation of assigned MDAPs and major automated information systems for major milestone decisions, materiel changes, and materiel releases in support of the Army Acquisition Executive and force development. Continue to prepare integrated System Evaluation Plans and conduct integrated technical and operational evaluations for all Army weapon systems. In support of Overseas Contingency Operations (OCO), Continue workload focus towards the evaluation of Rapid Initiative (RI) systems, Counter Improvised Explosive Device (IED) systems, and Urgent Material Releases. to include civilian pay costs for 439 authorizations for FY 14 (equates to approximately 94% of AEC's total budget). Additionally, provide Underbody Blast Modeling and Simulation support to provide early identification of			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605716A / *Army Evaluation Center*	**Project (Number/Name)** 302 / *Army Evaluation Center*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
vehicle improvements that directly impact Soldier survivability; improves test design; provides additional evaluation data to support acquisition. Endstate is to have a valid, accredited model to evalute crew survivability. Also, provide Center for Reliability and Growth in response to DUSD (ATL) and AAE policies mandating Reliability Growth programs and periodic assessments for major systems. These DOD and DA policies became Public Law 111-23 (The Weapon System Reform Act of 2009 - signed 22 May 2009). The Law emphasizes that the service acquisition executive must ensure acquisition personnel have appropriate training and expertise to formulate robust RAM growth programs. The policies and Law are a result of a Defense Science Board report on Developmental Test and Evaluation (May 2008), showing that there has been a significant increase in the number of Department of Defense weapon system programs evaluated as not being operationally suitable. The report shows that about two thirds of Army systems from 1997 to 2006 failed to meet their realiability requirements during operational testing - primarily due to lack of material readiness due to poor system reliability and maintenance (RAM). Funding provides resources dedicated to developing critical tools, methodologies, policies, formal guidance, and educational materials required to implement new policies and improve weapon system reliability.			
FY 2015 Plans: Will provide integrated technical and operational evaluations and continuous evaluation of assigned MDAPs and major automated information systems for major milestone decisions, materiel changes, and materiel releases in support of the Army Acquisition Executive and force development. Will continue to prepare integrated System Evaluation Plans and conduct integrated technical and operational evaluations for all Army weapon systems. To include civilian pay costs for 366 authorizations for FY 15 (equates to approximately 94% of AEC's total budget). Additionally, will provide Underbody Blast Modeling and Simulation support to provide early identification of vehicle improvements that directly impact Soldier survivability; improves test design; provides additional evaluation data to support acquisition. Endstate is to have a valid, accredited model to evalute crew survivability. Also, will provide Center for Reliability and Growth in response to DUSD (ATL) and AAE policies mandating Reliability Growth programs and periodic assessments for major systems. These DOD and DA policies became Public Law 111-23 (The Weapon System Reform Act of 2009 - signed 22 May 2009). The Law emphasizes that the service acquisition executive will ensure acquisition personnel will have appropriate training and expertise to formulate robust RAM growth programs. The policies and Law will be the a result of a Defense Science Board report on Developmental Test and Evaluation (May 2008), showing that there will be a significant increase in the number of Department of Defense weapon system programs evaluated as not being operationally suitable. The report will show that about two thirds of Army systems from 1997 to 2006 failed to meet their realiability requirements during operational testing - primarily due to lack of material readiness due to poor system reliability and maintenance (RAM). Funding will provide resources dedicated to developing critical tools, methodologies, policies, formal guidance, test management, safety vertification and educational materials required to implement new policies and improve weapon system reliability.			
Title: Early Involvement	3.422	-	-
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605716A / *Army Evaluation Center*	**Project (Number/Name)** 302 / *Army Evaluation Center*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Supports the Commanding General's early involvement initiative which positions acquisition certified liaison officers at 2 Joint and 9 Army Program Executive Offices (PEO), TRADOC/ARCIC, REF, JIEDDO, and RDECOM. Assigned personnel provide continuous support to materiel and combat developers from the inception of their programs. The early involvement of LNOs supports the sections of the ATEC Mission Essential Task List (METL) that apply to ongoing contingency operations. ATEC performance continues to meet 120 day rapid equipping requirement set by the CSA. Liaison officers continue to enable ATEC to sustain rapid, flexible T&E support in the evaluation of Rapid Initiative Systems, Counter IED systems, and Urgent Material Releases. Effort results in cost savings, cost avoidance and critical design efficiencies being identified early in a system's development, thereby avoiding more expensive product improvement programs later in a system's life cycle. T&E efficiency gains continue to be realized through early identification of instrumentation, modeling and simulation tools, and other resources needed for testing, as well as making more efficient use of data from developmental testing and experiments. ***FY 2013 Accomplishments:*** Continued support of the Commanding General's early involvement initiative which positions acquisition certified liaison officers at 2 Joint and 9 Army Program Executive Offices (PEO), TRADOC/ARCIC, REF, JIEDDO, and RDECOM. All Early Involvment costs for HQ ATEC will be charged to Program Element 0605898AM65 in FY14 and beyond.			
Accomplishments/Planned Programs Subtotals	57.037	65.240	55.039

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605718A *I Army Modeling & Sim X-Cmd Collaboration & Integ*							
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	-	1.375	1.282	1.125	-	1.125	1.485	1.613	1.643	1.551	-	-
S03: *Analysis M&S Tools and Services*	-	1.375	1.282	1.125	-	1.125	1.485	1.613	1.643	1.551	-	-

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

Note

FY13 adjustments attributed to Congressional General Reductions (-2 thousand); SBIR/STTR transfers (-37 thousand); Sequestration reductions (-131 thousand). FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

PE 0605718A promotes the Army's Modeling and Simulation (M&S) strategy, defined by five guiding priorities: (1) formulate Army M&S policies; (2) develop and employ management processes for models, simulations and data; (3) develop M&S standards, architectures, networks and environments; (4) develop/employ new M&S tools and simulation technology; (5) develop an M&S workforce. PE 0605718A focuses on priorities 3 and 4.

M&S Standards, Architectures, Networks and Environments: The consistent use of standards, architectures, networks and environments advances the goal of interoperability. The Army coordinates with Joint, Interagency, Intergovernmental, and Multinational (JIIM) partners along with industry and academia to develop/employ standards that promote collaboration and facilitate the sharing of tools, data and information. The Army oversees procedures and processes for the appropriate use of standards to foster common formats and increase M&S and data reuse. The Army ensures these standards, architectures, networks and environments are readily accessible and can be reliably applied by users.

M&S Tools and Simulation Technology: The Army must have credible M&S tools and data to support the full range of Army organizational missions and functional responsibilities. M&S results that are timely and credible enhance decision making. The Army must develop and accredit reliable M&S tools so that decision makers and senior leaders benefit from the results and thus support the continued development, integration and use of such tools. To ensure credibility and reliability of results, M&S managers, developers and users must make the capabilities, constraints, limitations and assumptions of their M&S tools readily accessible. PE 0605718A provides for the development and employment of tools in the form of models, simulations and data that support the full range of Army interests and deliver timely information to enhance effective decision making. Moreover, these tools can be documented, verified, validated and accredited for their intended purpose in order to provide timely, credible results.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*			R-1 Program Element (Number/Name) PE 0605718A / *Army Modeling & Sim X-Cmd Collaboration & Integ*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	1.545	1.283	1.555	-	1.555
Current President's Budget	1.375	1.282	1.125	-	1.125
Total Adjustments	-0.170	-0.001	-0.430	-	-0.430
• Congressional General Reductions	-0.002	-0.001			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.037	-			
• Adjustments to Budget Years	-	-	-0.430	-	-0.430
• Other Adjustments	-0.131	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605718A / *Army Modeling & Sim X-Cmd Collaboration & Integ*	Project (Number/Name) S03 / *Analysis M&S Tools and Services*	

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
S03: *Analysis M&S Tools and Services*	-	1.375	1.282	1.125	-	1.125	1.485	1.613	1.643	1.551	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

FY14-18 funds include those reprogrammed from PE0605718A, Project S05 - SIMTECH: $124,000, $116,000, $117,000, $117,000, $118,000. Reprogramming occurred during the POMBES14-18 cycle.

A. Mission Description and Budget Item Justification

The project "Analysis Tools and Services" has two functions:

Function 1 (priority 3 of the Army M&S strategy) -- Develop M&S standards, architectures, networks and environments that promote sharing, interoperability, access and reliable application of tools, formats, data and information among/for users. M&S = Modeling and Simulation.

Function 2 (priority 4 of the Army M&S strategy) -- Develop and improve tools and technology in the form of models, simulations and data that support the full range of Army interests and deliver timely information to enhance effective decision making. Moreover, these tools can be documented, verified, validated and accredited for their intended purpose. This is priority 4 of the Army M&S strategy.

Resources under Project S03 support the five M&S communities (Acquisition, Analysis, Experimentation, Intelligence, Test & Evaluation, Training) at the enterprise level through enabling efforts. These efforts include the following: (a) design models, simulations, data and tools that are resident within one organization but reusable and trusted by M&S practitioners across the Army M&S Enterprise; (b) leverage industry and academia; (c) promote interoperability within M&S and between M&S and operational capabilities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Irregular Warefare	0.200	-	-
Articles:	-	-	-
Description: Modeling for irregular warfare will assist the Army in achieving its strategic objectives through indirect means with the same degree of dominance it employs in major combat operations. Military operations associated with irregular warfare are foreign internal defense, stability operations, counterinsurgency, combating terrorism, unconventional warfare, and application of the dynamics of cultural and human behavior.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605718A / *Army Modeling & Sim X-Cmd Collaboration & Integ*	**Project (Number/Name)** S03 / *Analysis M&S Tools and Services*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: FY13 efforts were in the area of modeling for one or more of the following operations associated with irregular warfare: foreign internal defense, stability operations, counterinsurgency, combating terrorism, unconventional warefare, and application of the dynamics of cultural and human behavior. The goal was to ensure the Army will retain the ability to conduct major combat operations while expanding the capabilities for irregular warfare.			
Title: M&S Data Management	0.500	-	-
Articles:	-	-	-
Description: Efforts applied to M&S data managment allow the Army M&S community to acquire an improved, robust data collection process; a robust data mining process; and an accessible data repository to enable more responsive, credible modeling (especially for current operating and generating environments). These improvements enable the Army to close current gaps in its ability to provide M&S support to the decision-making, concept development, operational assessment, and training processes. ***FY 2013 Accomplishments:*** FY13 efforts pertained to development of M&S data and standards to allow the Army M&S community to acquire an improved, robust data collection process; a robust data mining process; and an accessible data repository to enable more responsive, credible modeling (especially for current operating and generating environments). Specific projects were selected by way of a request for proposals to the Army M&S community. The request was issued by the Army Modeling and Simulation Office.			
Title: Army Network Modeling	0.200	-	-
Articles:	-	-	-
Description: The Army Network is an enhanced, interoperable communications network that assists leaders in making timely, informed decisions and promotes organizational agility, lethality and sustainability. The network links soldiers on the battlefield with space-based and aerial sensors, robots and command posts. These systems provide situational awareness and control by locating the enemy, friendly forces and civilian populations; by revealing weapon-system availability at any given time; and by enabling the application of precise lethal fires. ***FY 2013 Accomplishments:*** FY13 activities covered modeling for the Army Network to maximize the effectiveness and accuracy of systems (spaced-based and aerial sensors, robots, and command posts) that provide situational awareness and control.			
Title: Expansion of Modeling & Simulation (M&S) Capabilities to One Semi-Automated Forces (OneSAF)	0.475	-	-
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605718A / *Army Modeling & Sim X-Cmd Collaboration & Integ*	**Project (Number/Name)** S03 / *Analysis M&S Tools and Services*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Expansion of M&S capabilities to OneSAF increases overall use of the OneSAF software to reduce Army life-cycle costs. Increasing OneSAF capabilities leads to the goal of implementing ONE TIME (rather than through the use of multiple software products) updates and changes associated with transformation, modernization and operations across the simulation life cycle. The reduction of reduncies; i.e., multiple software products with similar or interchangable features, is an esstential outcome of the expanded OneSAF. ***FY 2013 Accomplishments:*** FY13 efforts enhanced the stability, interoperability and cross-community application of the OneSAF software. Efforts involved two focal points: (1) capability gaps identified in the FY12 OneSAF functional review (review consolidates the needs of the OneSAF user community and integrates findings of the OneSAF Roadmap project) and (2) integration of emerging Army capabilities and needs into the simulation software to enable the analysis and training communities to run relevant simulation events.			
Title: Develop M&S standards, architectures, networks and environments	-	0.428	0.367
Articles:	-	-	-
Description: Develop M&S standards, architectures, networks and environments that promote sharing, interoperability, access and reliable application of tools, formats, data and information among/for users. ***FY 2014 Plans:*** ..Fy14 funds are/will be distributed among activities that promote the third priority of the Army M&S strategy: develop M&S standards, architectures, networks and environments. The specific distribution is based on requirements and priorities established prior to the start of and during FY14. ***FY 2015 Plans:*** ..Fy15 funds will be distributed among activities that promote the third priority of the Army M&S strategy: develop M&S standards, architectures, networks and environments. The specific distribution will be based on requirements and priorities established prior to the start of and during FY15.			
Title: Develop M&S tools and technology	-	0.854	0.758
Articles:	-	-	-
Description: Develop and improve tools and technology in the form of models, simulations and data that support the full range of Army interests and deliver timely information to enhance effective decision making. Moreover, these tools can be documented, verified, validated for their intended purpose. ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605718A / *Army Modeling & Sim X-Cmd Collaboration & Integ*	**Project (Number/Name)** S03 / *Analysis M&S Tools and Services*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
..Fy14 funds are/will be distributed among activities that promote the fourth priority of the Army M&S strategy: develop M&S tools and technology. The specific distribution is based on requirements and priorities established prior to the start of and during FY14. ***FY 2015 Plans:*** ..Fy15 funds will be distributed among activities that promote the fourth priority of the Army M&S strategy: develop M&S tools and technology. The specific distribution will be based on requirements and priorities established prior to the start of and during FY15.			
Accomplishments/Planned Programs Subtotals	1.375	1.282	1.125

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*							
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	-	75.662	81.993	64.169	-	64.169	64.243	66.946	69.161	71.298	-	-
M02: *Med Cmd Spt (Non-AMHA)*	-	20.293	28.065	25.454	-	25.454	25.244	25.422	26.059	26.577	-	-
M15: *ARI Mgmt/ADM Act*	-	4.887	5.454	3.444	-	3.444	3.513	3.568	3.629	3.700	-	-
M16: *Standardization Groups*	-	3.979	4.334	5.308	-	5.308	3.514	3.624	4.167	4.254	-	-
M42: *ARDEC Cmd/Ctr Support*	-	7.768	8.433	5.847	-	5.847	6.200	6.616	6.833	7.120	-	-
M44: *CECOM Cmd/Ctr Spt*	-	5.291	5.702	3.975	-	3.975	4.195	4.528	4.658	4.848	-	-
M46: *AMCOM Cmd/Ctr Spt*	-	12.028	13.535	8.741	-	8.741	9.442	10.208	10.473	10.927	-	-
M47: *TACOM Cmd/Ctr Spt*	-	3.632	3.900	2.734	-	2.734	2.863	3.090	3.176	3.309	-	-
M53: *Developmental Test Command/Ctr Spt*	-	7.365	-	-	-	-	-	-	-	-	-	-
M55: *Edgewood Chemical Biological Center*	-	6.554	8.249	6.485	-	6.485	6.973	7.460	7.668	7.963	-	-
M58: *SECOM CMD/CTR Spt*	-	2.633	2.920	0.936	-	0.936	1.106	1.217	1.262	1.340	-	-
M76: *Armament Group Support*	-	1.232	1.401	1.245	-	1.245	1.193	1.213	1.236	1.260	-	-

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

Note

FY13 adjustments attributed to Congressional General Reductions (-195 thousand); SBIR/STTR transfers (-790 thousand); Sequestration reductions (-6.775 million). FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

This program funds the continued operation of non-Army Management Headquarters Activities (AMHA) management and administrative functions at U.S. Army Research, Development and Standardization Groups overseas, Army Research, Development, Test, and Evaluation (RDTE) commands, centers and activities required to accomplish overall assigned general research and development missions and international research and development not directly related to specific research and development projects. The Standardization Groups play an integral role in the U.S. Army efforts for international cooperative research, development and interoperability, and fulfill international memoranda of understanding requirements (especially the American, British, Canadian and Australian Armies' Standardization Programs).

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*		R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*			
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	83.422	82.035	81.483	-	81.483
Current President's Budget	75.662	81.993	64.169	-	64.169
Total Adjustments	-7.760	-0.042	-17.314	-	-17.314
• Congressional General Reductions	-0.195	-0.042			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.790	-			
• Adjustments to Budget Years	-	-	-17.314	-	-17.314
• Other Adjustments	-6.775	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*	Project (Number/Name) M02 / *Med Cmd Spt (Non-AMHA)*	

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
M02: *Med Cmd Spt (Non-AMHA)*	-	20.293	28.065	25.454	-	25.454	25.244	25.422	26.059	26.577	-	-
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 funding for authorized civilian workforce performing medical research, development,acquisition management and oversight that support the medical research, development, test, and evaluation (RDTE) programs at the U.S. Army Medical Research and Materiel Command (USAMRMC), Fort Detrick, Maryland to: (1) perform planning, programming, and budgeting; (2) manage resources; and (3) ensure compliance with U.S. Food and Drug Administration (FDA) and other regulatory and safety requirements. It also provides for continued operations of contracting and acquisition management functions performed by the U.S. Army Medical Research Acquisition Activity (USAMRAA) in support of the USAMRMC Medical RDTE Program.

Additionally, this project provides funding for the special immunization program (SIP). The SIP program provides FDA licensed vaccines and investigational new drug (IND) vaccines under informed consent to laboratory workers at the US Army Medical Research Institute of Infectious Diseases, and to other military, government, or contractor personnel who may be at risk of exposure to highly hazardous pathogenic microorganisms or toxins

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Civilian Authorized Salaries and other operational requirements	20.293	28.065	25.454
Articles:	-	-	-
Description: Funding was provided for the following effort			
FY 2013 Accomplishments: Funded authorized civilian salaries and associated expenses (supplies, equipment, travel, etc.) at HQ, USAMRMC, and USAMRAA.			
FY 2014 Plans: Funds authorized civilian salaries and associated expenses (supplies, equipment, travel, etc.) at HQ, USAMRMC, and USAMRAA. Total civilian count will reflect increased authorizations added in FY12 due to an administrative change to add authorizations for Army acquisition positions.			
FY 2015 Plans: Will fund authorized civilian salaries and associated expenses (supplies, equipment, travel, etc) USAMRMC and USAMRAA. Also, will provide regulatory, clinical monitoring and data support for the Special Immunization Program (SIP). This program will provide non licensed vaccines under FDA oversight to personnel at risk of exposure to selected infectious diseases			
Accomplishments/Planned Programs Subtotals	20.293	28.065	25.454

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605801A / *Programwide Activities*	**Project (Number/Name)** M02 / *Med Cmd Spt (Non-AMHA)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*	Project (Number/Name) M15 / *ARI Mgmt/ADM Act*	

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
M15: *ARI Mgmt/ADM Act*	-	4.887	5.454	3.444	-	3.444	3.513	3.568	3.629	3.700	-	-
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 U.S. Army Research Institute (ARI) for the Behavioral and Social Sciences is the only Science and Technology (S&T) lab whose mission is focused on the Soldier lifecycle, human resources, personnel readiness, and human-to-human issues. This project supports the non-Army Management Headquarters Activity (non-AMHA) management and administrative functions to enable ARI to accomplish its research mission and includes activities such as budget execution, procurement oversight, RDT&E program planning and evaluation, management control, security/safety, logistics, information technology, and personnel/manpower execution and oversight. ARI's behavioral and social science research will provide the Army with greater flexibility for changes in force size, structure, mission demands, resource constraints, and availability of qualified applicants.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: ARI	4.887	5.454	3.444
Articles:	-	-	-
Description: Funding is provided for the following effort			
FY 2013 Accomplishments: Provided operation of management, administrative, personnel, budget, and support functions at a level consistent with Army and mission requirements to meet the needs of ARI as an Army Laboratory conducting the Army's personnel, training, leader development, and organizational performance R&D program.			
FY 2014 Plans: Continuing to provide operation of management, administrative, personnel, budget, and support functions at a level consistent with Army and mission requirements to meet the needs of ARI as an Army Laboratory conducting the Army's personnel, training, leader development, and organizational performance R&D program.			
FY 2015 Plans: Will continue to provide operation of management, administrative, personnel, budget, and support functions at a level consistent with Army and mission requirements to meet the needs of ARI as an Army Laboratory conducting the Army's personnel, training, leader development, and organizational performance R&D program.			
Accomplishments/Planned Programs Subtotals	4.887	5.454	3.444

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605801A / *Programwide Activities*	**Project (Number/Name)** M15 / *ARI Mgmt/ADM Act*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*	Project (Number/Name) M16 / *Standardization Groups*	

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
M16: *Standardization Groups*	-	3.979	4.334	5.308	-	5.308	3.514	3.624	4.167	4.254	-	-
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 M16 supports nine International Technology Centers (formerly known as Standardization Groups) (Australia, United Kingdom, Canada, France, Germany, Japan, Chile, Argentina, and Singapore) for personnel, travel and overhead costs, leases on buildings, and mandatory permanent change of station.

The mission of the International Technology Centers is to represent the Army and serve as in-country/region focal point for all international armaments cooperation in their areas (countries) of responsibility to government agencies, academia, and defense industries.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: International Technology Centers Management	3.979	4.334	5.308
Articles:	-	-	-
Description: Management / adminstrative support to International Technology Centers			
FY 2013 Accomplishments: Provided management and administrative functions at a level consistent with mission requirements and support needs at the nine International Technology Centers.			
FY 2014 Plans: Provide management and administrative functions at a level consistent with mission requirements and support needs at the nine International Technology Centers.			
FY 2015 Plans: Will continue to provide management and administrative functions at a level consistent with mission requirements and support needs at the nine International Technology Centers.			
Accomplishments/Planned Programs Subtotals	3.979	4.334	5.308

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 / 6	**R-1 Program Element (Number/Name)** PE 0605801A / *Programwide Activities*	**Project (Number/Name)** M16 / *Standardization Groups*

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*				Project (Number/Name) M42 / *ARDEC Cmd/Ctr 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**
M42: *ARDEC Cmd/Ctr Support*	-	7.768	8.433	5.847	-	5.847	6.200	6.616	6.833	7.120	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

A. Mission Description and Budget Item Justification

Funding supports the Non-Army Management Headquarters Activity (AMHA) management and administrative functions at the U.S. Army Armament Research, Development and Engineering Center (ARDEC), Picatinny Arsenal, NJ.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Management Support	7.768	8.433	5.847
Articles:	-	-	-
Description: ARDEC management / administrative efforts ***FY 2013 Accomplishments:*** Provided continued management and administrative functions at a level consistent with mission requirements and support needs at ARDEC. ***FY 2014 Plans:*** Provide continued management and administrative functions at a level consistent with mission requirements and support needs at ARDEC. ***FY 2015 Plans:*** Will continue to provide management and administrative functions at a level consistent with mission requirements and support needs at ARDEC.			
Accomplishments/Planned Programs Subtotals	7.768	8.433	5.847

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605801A / *Programwide Activities*	**Project (Number/Name)** M42 / *ARDEC Cmd/Ctr Support*

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*				Project (Number/Name) M44 / *CECOM Cmd/Ctr Spt*			
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**
M44: *CECOM Cmd/Ctr Spt*	-	5.291	5.702	3.975	-	3.975	4.195	4.528	4.658	4.848	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

A. Mission Description and Budget Item Justification

Supports the Non-Army Management Headquarters Activity management and administrative functions at the U.S. Army Communications-Electronics Research Development and Engineering Center (CERDEC), Aberdeen Proving Ground, MD.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Management Support	5.291	5.702	3.975
Articles:	-	-	-
Description: CERDEC management and administrative efforts			
FY 2013 Accomplishments: Continued to provide management and administrative functions at a level consistent with mission requirements and support needs at CERDEC.			
FY 2014 Plans: Continue to provide management and administrative functions at a level consistent with mission requirements and support needs at CERDEC.			
FY 2015 Plans: Will Continue to provide management and administrative functions at a level consistent with mission requirements and support needs at CERDEC.			
Accomplishments/Planned Programs Subtotals	5.291	5.702	3.975

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605801A / *Programwide Activities*	**Project (Number/Name)** M44 / *CECOM Cmd/Ctr Spt*

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*				Project (Number/Name) M46 / *AMCOM Cmd/Ctr Spt*			
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**
M46: *AMCOM Cmd/Ctr Spt*	-	12.028	13.535	8.741	-	8.741	9.442	10.208	10.473	10.927	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

A. Mission Description and Budget Item Justification

Supports the Non-Army Management Headquarters Activity (AMHA) management and administrative functions at the U.S. Army Aviation and Missile Research and Development Center (AMRDEC), Redstone Arsenal, AL.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Management Support	7.203	8.535	5.641
Articles:	-	-	-
Description: AMRDEC management and administrative efforts			
FY 2013 Accomplishments: Continued to provide management and administrative functions at a level consistent with mission requirements and support needs at AMRDEC.			
FY 2014 Plans: Continue to provide management and administrative functions at a level consistent with mission requirements and support needs at AMRDEC			
FY 2015 Plans: Will continue to provide management and administrative functions at a level consistent with mission requirements and support needs at AMRDEC			
Title: Protection Technology (PT) Program (formerly Anti-Tamper (AT))	4.825	5.000	3.100
Articles:	-	-	-
Description: The PT Program is a DoD program that encompasses the systems engineering activities intended to prevent and/or delay exploitation of critical technologies in U.S. weapon systems. These activities involve the entire life-cycle of systems acquisition, including research, development, implementation, and testing of PT measures.			
FY 2013 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605801A / *Programwide Activities*	**Project (Number/Name)** M46 / *AMCOM Cmd/Ctr Spt*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continued to maintain the core team of subject matter experts (SMEs) available for this mission and to conduct technical assessments of micro-electronic parts used in the electronic designs of a number of critical Army weapons systems. ***FY 2014 Plans:*** Continue to maintain the core team of subject matter experts (SMEs) available for this mission and to conduct technical assessments of micro-electronic parts used in the electronic designs of a number of critical Army weapons systems. ***FY 2015 Plans:*** Will continue to maintain the core team of subject matter experts (SMEs) available for this mission and to conduct technical assessments of micro-electronic parts used in the electronic designs of a number of critical Army weapons systems.			
Accomplishments/Planned Programs Subtotals	12.028	13.535	8.741

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*				Project (Number/Name) M47 / *TACOM Cmd/Ctr Spt*			
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**
M47: *TACOM Cmd/Ctr Spt*	-	3.632	3.900	2.734	-	2.734	2.863	3.090	3.176	3.309	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

A. Mission Description and Budget Item Justification

Supports the Non-Army Management Headquarters Activity management and administrative functions at the U.S. Army Tank-Automotive Research Development Engineering Center (TARDEC), Warren, MI.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Management Support	3.632	3.900	2.734
Articles:	-	-	-
Description: TARDEC management and administrative efforts			
FY 2013 Accomplishments: Provided continued management and administrative functions at a level consistent with mission requirements and support needs at TARDEC.			
FY 2014 Plans: Provide continued management and administrative functions at a level consistent with mission requirements and support needs at TARDEC.			
FY 2015 Plans: Will provide continued management and administrative functions at a level consistent with mission requirements and support needs at TARDEC.			
Accomplishments/Planned Programs Subtotals	3.632	3.900	2.734

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605801A / *Programwide Activities*	**Project (Number/Name)** M47 / *TACOM Cmd/Ctr Spt*

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*				Project (Number/Name) M53 / *Developmental Test Command/Ctr Spt*			
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**
M53: *Developmental Test Command/Ctr Spt*	-	7.365	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

Army consolidated three Test and Evaluation Command Headquarters, Army Test and Evaluation Command (ATEC), Developmental Test Command (DTC), and Army Evaluation Center (AEC). As a result of this consolidation, ATEC aligned all requirements for HQ ATEC under one Program Element (0605898AM65). Funds reprogrammed effective FY2014.

A. Mission Description and Budget Item Justification

Project M53 funds civilian labor and support costs for the technical direction and administrative functions of the Headquarters, U.S. Army Developmental Test Command (DTC) located at Aberdeen Proving Ground, Maryland, and is required to support the accomplishment of assigned developmental test missions not directly related to specific test and evaluation projects. This project includes staff/management functions of resource management, safety, security, environmental, strategic planning and ADPE/information/technology support for command-wide databases in support of the developmental test mission with technical direction of seven Major Range and Test Facility Bases (MRTFBs) and one test center: White Sands Missile Range(WSMR), New Mexico; Aberdeen Test Center (ATC), Aberdeen Proving Ground, Maryland; Dugway Proving Ground (DPG), Utah; Electronic Proving Ground (EPG) Fort Huachuca, Arizona; and Yuma Proving Ground (YPG), Arizona; Cold Regions Test Center (CRTC), Fort Greeley, Alaska; and Tropic Regions Test Center (TRTC) at various locations, as well as for Redstone Test Center (RTC) Redstone Arsenal and Fort Rucker, Alabama. This is the operating budget for DTC Headquarters, which provides technical direction for the annual execution of over 3500 tests, 8801 workyears, and a $2.0 billion program.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Civilian Labor and Other Support Costs	7.365	-	-
Articles:	-	-	-
Description: Funding is provided for the following effort			
FY 2013 Accomplishments: DTC Civilian labor and other support costs are needed to provide technical direction and administer the assigned Army developmental test mission. Starting in FY14, funds were programmed in Program Element 0605898AM65.			
Accomplishments/Planned Programs Subtotals	7.365	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605801A / *Programwide Activities*	**Project (Number/Name)** M53 / *Developmental Test Command/Ctr Spt*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*	Project (Number/Name) M55 / *Edgewood Chemical Biological Center*	

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
M55: *Edgewood Chemical Biological Center*	-	6.554	8.249	6.485	-	6.485	6.973	7.460	7.668	7.963	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

A. Mission Description and Budget Item Justification

Supports the Non-Army Management Headquarters Activity (AMHA)management and administrative functions at the U.S. Army Edgewood Chemical Biological Center (ECBC), Aberdeen Proving Ground, MD.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Management Support	6.554	8.249	6.485
Articles:	-	-	-
Description: ECBC management and administrative efforts			
FY 2013 Accomplishments: Provided continued management and administrative functions at a level consistent with mission requirements and support needs at ECBC.			
FY 2014 Plans: Provide continued management and administrative functions at a level consistent with mission requirements and support needs at ECBC.			
FY 2015 Plans: Will provide continued management and administrative functions at a level consistent with mission requirements and support needs at ECBC.			
Accomplishments/Planned Programs Subtotals	6.554	8.249	6.485

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605801A / *Programwide Activities*	**Project (Number/Name)** M55 / *Edgewood Chemical Biological Center*

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*				Project (Number/Name) M58 / *SECOM CMD/CTR Spt*			
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**
M58: *SECOM CMD/CTR Spt*	-	2.633	2.920	0.936	-	0.936	1.106	1.217	1.262	1.340	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

A. Mission Description and Budget Item Justification

Supports the Non-Army Management Headquarters Activity (AMHA) management and administrative functions at the Natick Soldier Research, Development and Engineering Center (NSRDEC), Natick, MA.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Management Support	2.633	2.920	0.936
Articles:	-	-	-
Description: NSRDEC management and administrative functions ***FY 2013 Accomplishments:*** Provided continued management and administrative functions at a level consistent with mission requirements and support needs at NSRDEC. ***FY 2014 Plans:*** Provide continued management and administrative functions at a level consistent with mission requirements and support needs at NSRDEC. ***FY 2015 Plans:*** Will provide continued management and administrative functions at a level consistent with mission requirements and support needs at NSRDEC.			
Accomplishments/Planned Programs Subtotals	2.633	2.920	0.936

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605801A / *Programwide Activities*	**Project (Number/Name)** M58 / *SECOM CMD/CTR Spt*

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605801A / *Programwide Activities*	Project (Number/Name) M76 / *Armament Group 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
M76: *Armament Group Support*	-	1.232	1.401	1.245	-	1.245	1.193	1.213	1.236	1.260	-	-
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 goal of this program is to expand worldwide allied standardization and interoperability through cooperative research and development (R&D) and technology sharing per SECDEF guidance and especially in support of the U.S. Army. This program partially funds the travel costs and administrative support (studies, analysis, interpretation, equipment, etc.) required to participate in international fora, such as the North Atlantic Treaty Organization (NATO) Army Armaments Group (NAAG), Defense Against Terrorism (DAT) and to pursue new cooperative R&D initiatives and international cooperative agreements such as memoranda of understanding. This program also includes: the United States' share of costs of the NATO Civil Budget, Chapter IX, which funds the NATO Industrial Advisory Group (NIAG) and the Special Fund for Cooperative Planning (U. S. Army is Executive Agent for this NATO bill); partially funds the Five Power Senior National Representatives, Army [SNR (A)], the Technical Cooperative Program, Bilateral SNR(A)s, and Army armaments working groups with many nations.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Army scientific support	0.305	0.313	0.350
Articles:	-	-	-
Description: Funds support Army subject matter experts to attend scientific and technological exchange, meetings, demonstrations, and/or simulations having military application and mutual benefits to the United States and its Allies.			
FY 2013 Accomplishments: Funds supported Army experts to attend scientific and technological exchange, meetings, demonstrations, and/or simulations having military application and mutual benefits to the United States and its Allies.			
FY 2014 Plans: Funds support Army experts to attend scientific and technological exchange meetings			
FY 2015 Plans: Funds will support Army experts to attend scientific and technological exchange, meetings, demonstrations, and/or simulations having military application and mutual benefits to the United States and its Allies.			
Title: Executive Agent	0.927	1.088	0.895
Articles:	-	-	-
Description: Fund the United States' share of the NATO Civil Budget, Chapter IX (Defense Support Programs). U. S. Army is Executive Agent for this NATO bill.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605801A / *Programwide Activities*	**Project (Number/Name)** M76 / *Armament Group Support*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Provided the United States' share of the NATO Civil Budget, Chapter IX (Defense Support Programs). U. S. Army is Executive Agent for this NATO bill. ***FY 2014 Plans:*** Provides the United States' share of the NATO Civil Budget, Chapter IX (Defense Support Programs). U. S. Army is Executive Agent for this NATO bill. ***FY 2015 Plans:*** Will provide the United States' share of the NATO Civil Budget, Chapter IX (Defense Support Programs). U. S. Army is Executive Agent for this NATO bill.			
Accomplishments/Planned Programs Subtotals	1.232	1.401	1.245

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605803A / *Technical Information Activities*							
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	-	48.995	33.835	32.319	-	32.319	37.709	34.617	34.541	35.118	-	-
720: *Tech Info Func Actv*	-	8.435	6.692	6.105	-	6.105	7.997	7.407	7.191	7.322	-	-
727: *Tech Info Activities*	-	14.639	10.337	8.578	-	8.578	13.565	10.857	11.219	11.247	-	-
730: *Pers & Trng Analys Act*	-	2.162	1.893	2.324	-	2.324	2.295	2.225	2.261	2.297	-	-
731: *Army High Performance Computing Centers*	-	6.965	5.232	5.231	-	5.231	4.047	4.744	4.560	4.662	-	-
733: *Acquisition Tech Act*	-	13.220	2.503	4.748	-	4.748	5.277	3.339	3.401	6.813	-	-
C16: *FAST*	-	2.305	1.368	1.442	-	1.442	1.978	1.796	1.663	1.692	-	-
C18: *BAST*	-	1.269	0.636	1.000	-	1.000	1.467	1.195	1.078	1.085	-	-
DW3: *Army Geospatial Enterprise Implementation*	-	-	5.174	2.891	-	2.891	1.083	3.054	3.168	-	-	-

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

Note

FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

This program element (PE) supports upgrading the accuracy, timeliness, availability, and accessibility of scientific, technical, and management information at all levels of the Army Research and Development (R&D) community. Management of this information is critical to achieve the goals established by the Army's Senior Leadership. Use of accurate and timely technical information is essential to successfully meeting the milestones required on the path to the future force, allowing Army Science and Technology (S&T) leadership to refine investment strategy and quickly react to emerging opportunities and issues. This program includes initiatives to improve information derivation, storage, access, display, validation, transmission, distribution, and interpretation; to develop and enhance a single business model for Army S&T knowledge management information technology; to provide for Independent Review Team analysis of technology maturity as part of the Technology Area Readiness Assessment as required by DoDI 5000.2 dated May 12, 2003 as well as the Army Science Board (ASB) (projects 720 and 727). This program addresses the need to increase the competitiveness and availability of scientific, engineering, and technical skills in the DoD and National workforce through outreach programs aimed at middle school through college students and teachers. By providing direct working experience for these students in Army laboratories, the programs expose these students to the working world of science and engineering (project 729). The program includes funding for studies and analyses using behavioral science-based analytic tools to provide policy and decision makers with Soldier-oriented recommendations concerning manpower, personnel, and training issues (project 730). The program includes funding for support for Army high performance computing centers (project 731). The program includes funding for improvements to the Army's acquisition process (project 733). This program supports combatant commanders and major Army commands by providing science advisors to address scientific and technical

issues and by providing engineering teams to solve field Army technical problems (project C16). Finally, this program funds studies by the Board on Army Science and Technology (BAST) (project C18). Coordination of this program with the other Services is achieved through inter-service working groups.

The cited work is consistent with the Assistant Secreatary of Defense for Research and Engineering science and technology priority focus areas and the Army Modernization Strategy.

Work in this PE is performed by the Research, Development, and Engineering Command (RDECOM), Aberdeen Proving Ground, MD, the Army Research Institute (ARI) for the Behavioral and Social Sciences, Arlington, VA, the Army Corps of Engineers' Engineer Research and Development Center (ERDC), Vicksburg, MS, Medical Research and Materiel Command (MRMC), Ft. Detrick, MD, Space and Missile Defense Command (SMDC), Huntsville, AL, and the Information Management Office, Arlington, VA.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	50.820	33.853	49.436	-	49.436
Current President's Budget	48.995	33.835	32.319	-	32.319
Total Adjustments	-1.825	-0.018	-17.117	-	-17.117
• Congressional General Reductions	-0.088	-0.018			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.182	-			
• Adjustments to Budget Years	-	-	-17.117	-	-17.117
• Other Adjustments	-0.555	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605803A / *Technical Information Activities*	Project (Number/Name) 720 / *Tech Info Func Actv*	

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
720: *Tech Info Func Actv*	-	8.435	6.692	6.105	-	6.105	7.997	7.407	7.191	7.322	-	-
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 funding for technology transfer activities to support acquisition, storage, and utilization of technical information for both military and domestic applications. Effective exploitation of science and technology (S&T) information is critical to achieving the goals established by senior Army leadership. Activities include Army support for Federal Laboratory Consortium (FLC) as required by Public Law; the Army Science Board; the Army Science Conference; S&T database management efforts; and administration of the Army's Small Business Innovation Research (SBIR) and Small Business Technology Transfer Program (STTR) in accordance with the Small Business Innovation Development Act of 1982, the Small Business Research and Development Enhancement Act of 1992 and subsequent reauthorizing legislation. Technology transfer activities make technical information available to both the public and private sectors to reduce duplication in Research and Development programs and to increase competitiveness in the US business community. Database management efforts support development of decision aids, databases, and automation support for the management and execution of the Army Research, Development, Test and Evaluation (RDTE) appropriation. In addition, this project provides funding for patent legal expenses and fees for all U.S. Army Research, Development, and Engineering Command (RDECOM) subordinate commands and laboratories, as required by the Omnibus Budget Reconciliation Act.

The cited work is consistent with the Assistant Secretary of Defense for Research and Engineering science and technology priority focus areas and the Army Modernization Strategy

Work is performed by the U.S. Army Research Development and Engineering Command (RDECOM), Aberdeen Proving Ground, MD and the U.S. Army Research Laboratory (ARL), Adelphi, MD.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Provide Army Funding Support for Federal Laboratory Consortium as Required by Public Law 104-113	0.245	0.248	0.250
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 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** 720 / *Tech Info Func Actv*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Provided Army funding support for Federal Laboratory Consortium as required by Public Law 104-113. ***FY 2014 Plans:*** Provide Army funding support for Federal Laboratory Consortium as required by Public Law 104-113. ***FY 2015 Plans:*** Will provide Army funding support for Federal Laboratory Consortium as required by Public Law 104-113.			
Title: Provide Administrative and Contractual Support for the Army Science Board	1.700	1.731	1.762
Articles:	-	-	-
Description: Funding is provided for the following effort. ***FY 2013 Accomplishments:*** Provided administrative and contractual support for the Army Science Board. ***FY 2014 Plans:*** Provide administrative and contractual support for the Army Science Board. ***FY 2015 Plans:*** Will provide administrative and contractual support for the Army Science Board.			
Title: Administrative Support for the Army's SBIR and STTR Programs	1.260	0.910	1.040
Articles:	-	-	-
Description: Army Small Business Innovation Research (SBIR) and Army Small Business Technology Transfer (STTR) programs. In 1982, Congress, through the Small Business Innovation Development Act (P.L. 97-219) established the SBIR program to foster the involvement of U.S. based small businesses in federal research and development (R&D). The SBIR program is designed to increase the participation of small, high-technology firms in the federal R&D endeavor and give driven businesses the opportunity to provide innovative R&D solutions in response to critical Army needs. The STTR program expands the public/private sector partnership to include the joint venture opportunities for small business and the nation's premier nonprofit research institutions. The most important role of the STTR program is to foster the innovation necessary to meet the nation's scientific and technological challenges in the 21st century. The SBIR/STTR support services include program and technical advisory support services on a broad level. The Army SBIR/STTR Program Management Office mission requires synergized, integrated business solutions that concentrates on small business technological advances, and eliminates redundancy in a codified and consistent method that reduces confusion and ambiguity for the thousands of small businesses that participate in the SBIR and STTR programs. ***FY 2013 Accomplishments:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** 720 / *Tech Info Func Actv*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Provided administrative support for the Army's SBIR and STTR programs. ***FY 2014 Plans:*** Provide administrative support for the Army's SBIR and STTR programs. ***FY 2015 Plans:*** Funding will provide the Army SBIR/STTR Program Offices with the resources necessary to execute these Congressionally mandated Programs. The Army SBIR/STTR Program Offices will procure program management and technical services required to fully support the programs. The support services will include a broad range of program and technical assistance services to include, but not limited to programming; database support; drafting of letter reports, newsletters, briefings, presentation materials and correspondence; analyses; documentation for record keeping and reporting; and portal virtual machines (VM) development and support. The services will assist the Program Offices in planning, coordinating, implementing, and orchestrating SBIR/STTR functions to include current and new approaches, processes and procedures as required by United States Code, Title 15, Section 638, Fiscal Year 2012 National Defense Authorization Act, Public Laws 112-81, and in Public Laws 97-219, 99-443, 102-564 and 106-554.			
Title: Provide Funding for Patent Fees and Patent Legal Expenses for U.S. Army Materiel Command (AMC) Commands and Laboratories ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2013 Accomplishments:*** Provided funding for patent fees and patent legal expenses for AMC commands and laboratories. ***FY 2014 Plans:*** Provide funding for patent fees and patent legal expenses for AMC commands and laboratories. ***FY 2015 Plans:*** Will provide funding for patent fees and patent legal expenses for AMC commands and laboratories.	1.735 -	0.501 -	1.160 -
Title: Provide Funding for S&T Strategic Planning and Support ***Articles:*** ***Description:*** Funding is provided for the following effort. ***FY 2013 Accomplishments:***	0.385 -	0.388 -	0.325 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** 720 / *Tech Info Func Actv*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Provided funding for S&T Strategic Planning and Support. ***FY 2014 Plans:*** Provide funding for S&T Strategic Planning and Support. ***FY 2015 Plans:*** Will provide funding for S&T Strategic Planning and Support.			
Title: Provide Funding for the Army Science Conference ***Articles:*** ***Description:*** Funding is provided for the following effort. ***FY 2013 Accomplishments:*** Provided funding for the Army Science Conference. ***FY 2014 Plans:*** Provide funding for the Army Science Conference.	0.481 -	0.473 -	- -
Title: Administer S&T Database Computer Engineering Support Contract and Support RDECOM Databases S&T Management Support ***Articles:*** ***Description:*** Funding is provided for the following effort. ***FY 2013 Accomplishments:*** Administered S&T database computer engineering support contract and support RDECOM databases S&T management support. ***FY 2014 Plans:*** Administer S&T database computer engineering support contract and support RDECOM databases S&T management support. ***FY 2015 Plans:*** Will administer S&T database computer engineering support contract and support RDECOM databases S&T management support.	2.629 -	2.441 -	1.568 -
Accomplishments/Planned Programs Subtotals	8.435	6.692	6.105

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** 720 / *Tech Info Func Actv*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605803A / *Technical Information Activities*	Project (Number/Name) *727 / Tech Info Activities*	

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
727: *Tech Info Activities*	-	14.639	10.337	8.578	-	8.578	13.565	10.857	11.219	11.247	-	-
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 decision aids, databases, and automation support for the management and execution of the Army Research, Development, Test, and Evaluation (RDTE) Appropriation. It includes the hardware, software, and contractor support required to develop and implement a set of management decision aids, databases, and hardware/software tools to support technical and budgetary decisions at the Office of the Secretary of Defense (OSD) and Department of the Army (DA). Most of the efforts in this project are on-going activities to support Army Research, Development, and Acquisition programs. Effective exploitation of S&T information is critical to achieving the goals established by Senior Army Leadership for the future force. Funding in this program supports Independent Review Team analysis of technology maturity as part of Technology Readiness Assessments as required by DoDI 5000.2 dated May 12, 2003.

The cited work is consistent with the Assistant Secreatary of Defense for Research and Engineering science and technology priority focus areas and the Army Modernization Strategy.

Work in this project is performed by the Office of the Assistant Secretary of the Army, Acquisition, Logistics and Technology, The Pentagon, Washington, DC.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Conduct and support S&T program portfolio assessments and analysis.	2.147	1.147	1.150
Articles:	-	-	-
Description: Funding is provided for the following effort.			
FY 2013 Accomplishments: Conducted and supported S&T program portfolio assessments and analysis.			
FY 2014 Plans: Conduct and support S&T program portfolio assessments and analysis.			
FY 2015 Plans: Will conduct and support S&T program portfolio assessments and analysis.			
Title: Support Army S&T strategic planning, analysis, and prioritization.	7.675	6.289	4.899
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** 727 / *Tech Info Activities*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Funding is provided for the following effort. ***FY 2013 Accomplishments:*** Supported Army S&T strategic planning, analysis, and prioritization. ***FY 2014 Plans:*** Support Army S&T strategic planning, analysis, and prioritization. ***FY 2015 Plans:*** Will support Army S&T strategic planning, analysis, and prioritization.			
Title: Provide funding and support for Army Acquisition Program Technology Readiness Assessments for Program Milestone Decisions. ***Articles:*** ***Description:*** Funding is provided for the following effort. ***FY 2013 Accomplishments:*** Provided funding and support for Army Acquisition Program Technology Readiness Assessments for Program Milestone Decisions. ***FY 2014 Plans:*** Provide funding and support for Army Acquisition Program Technology Readiness Assessments for Program Milestone Decisions. ***FY 2015 Plans:*** Will provide funding and support for Army Acquisition Program Technology Readiness Assessments for Program Milestone Decisions.	3.836 -	2.005 -	1.619 -
Title: Provide Army support to Assistant Secretary of Defense for Research and Engineering Executive Staff for DoD-wide Science and Technology oversight. ***Articles:*** ***Description:*** Funding is provided for the following effort. ***FY 2013 Accomplishments:*** Provided Army support to Assistant Secretary of Defense for Research and Engineering Executive Staff for DoD-wide Science and Technology oversight. ***FY 2014 Plans:***	0.981 -	0.896 -	0.910 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** 727 / *Tech Info Activities*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Provide Army support to Assistant Secretary of Defense for Research and Engineering Executive Staff for DoD-wide Science and Technology oversight. ***FY 2015 Plans:*** Will provide Army support to Assistant Secretary of Defense for Research and Engineering Executive Staff for DoD-wide Science and Technology oversight.			
Accomplishments/Planned Programs Subtotals	14.639	10.337	8.578

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605803A / *Technical Information Activities*	Project (Number/Name) 730 / *Pers & Trng Analys Act*	

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
730: *Pers & Trng Analys Act*	-	2.162	1.893	2.324	-	2.324	2.295	2.225	2.261	2.297	-	-
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 Army's behavioral and social science research-based studies and analyses to address current and near term Soldier, training, and leader development issues. The research provides a unique capability to address a number of issues that directly or indirectly affect Soldier and unit performance and readiness, such as the effects of changes in training on individual and unit performance, the personnel costs of alternative programs and policies and the effects of program changes on retention of quality Soldiers. Requirements for these critical studies and analyses are solicited on an annual basis from the Chief of Staff of the Army (CSA), U.S. Army Training and Doctrine Command (TRADOC), the Assistant Secretary of the Army for Manpower and Reserve Affairs (ASA(M&RA)), the Army Deputy Chief of Staff(G-1), and the Human Resources Command (HRC).

The cited work is consistent with the Assistant Secreatary of Defense for Research and Engineering science and technology priority focus areas and the Army Modernization Strategy

Work in this project is managed by the US Army Research Institute (ARI) for the Behavioral and Social Sciences, Arlington, VA

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: PERS & TRNG ANALYS ACT	2.162	1.893	2.324
Articles:	-	-	-
Description: Funding is provided for the following effort.			
FY 2013 Accomplishments: Conduct studies and analyses based on critical issues identified by the CSA, TRADOC, ASA(M&RA), the G-1, and the HRC.			
FY 2014 Plans: Studies and analyses will be conducted based on critical issues identified by the CSA, TRADOC, ASA(M&RA), the G-1, and the HRC.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** 730 / *Pers & Trng Analys Act*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Will conduct studies and analyses based on critical issues identified by the Secretary of the Army (SA)123456, Chief of Staff of the Army, U.S. Army Training and Doctrine Command (TRADOC), Assistant Secretary of the Army for Manpower and Reserve Affairs (ASA(M&RA)),and the Deputy Chief of Staff (DCS G-1).			
Accomplishments/Planned Programs Subtotals	2.162	1.893	2.324

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605803A / *Technical Information Activities*				Project (Number/Name) 731 / *Army High Performance Computing Centers*			
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**
731: *Army High Performance Computing Centers*	-	6.965	5.232	5.231	-	5.231	4.047	4.744	4.560	4.662	-	-
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 funding for research, education, outreach, and sustainment of the Army High Performance Computing Centers at the U.S. Army Research Laboratory (ARL), the U.S. Army Tank and Automotive Research, Development, and Engineering Center (TARDEC), and the Army High Performance Computing Research Center (AHPCRC) consortium. The Army High Performance Computing Centers provide high fidelity modeling, simulation, and analysis of materials, systems, and operational constructs. The Centers work with researchers at Army laboratories and research, development, and engineering centers to explore new algorithms in the computational sciences to address critical technology issues in computational research areas.

The cited work is consistent with the Assistant Secretary of Defense for Research and Engineering science and technology priority focus areas and the Army Modernization Strategy.

Work is performed by the U.S. Army Research Laboratory (ARL), Aberdeen Proving Ground, MD and the U.S. Army Tank and Automotive Research, Development, and Engineering Center (TARDEC), Warren, MI.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Sustain the High Performance Computing (HPC) Environment and Infrastructure in Support of the U.S. Army Research Laboratory (ARL)	3.855	3.471	2.916
Articles:	-	-	-
Description: Funding is provided for the following effort.			
FY 2013 Accomplishments: Sustained the HPC environment and infrastructure in support of the U.S. ARL.			
FY 2014 Plans: Develop software and software porting capability for new computing architectures; and maintain Army-specific applications to include data analysis support for petabytes of output, networking research and development (R&D), classified special access			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** 731 / *Army High Performance Computing Centers*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
program (SAP) scientific visualization, software maintenance for Army specific SAP projects, and research computer systems to support ARL fundamental and applied research. ***FY 2015 Plans:*** Will develop software for emerging central processing unit graphics processing unit (CPU-GPU) based heterogeneous computing architectures; maintain scalable software tools for Army users; maintain and/or develop software to support large data analysis support for petabytes of output; investigate emerging networking paradigm's for HPC networking R&D, classified SAP scientific visualization, and software maintenance for Army-specific SAP projects; and research computer systems to support fundamental and applied HPC research at ARL.			
Title: Sustain the High Performance Computing (HPC) Environment and Infrastructure in Support of the U.S. Army Tank and Automotive Research Development and Engineering Center (TARDEC) ***Articles:*** ***Description:*** Funding is provided for the following effort. ***FY 2013 Accomplishments:*** Sustained the HPC environment and infrastructure in support of the U.S. Army TARDEC. ***FY 2014 Plans:*** Sustain the HPC environment and infrastructure in support of the US Army TARDEC. ***FY 2015 Plans:*** Will sustain the HPC environment and infrastructure in support of the US Army TARDEC.	1.963 -	1.761 -	2.315 -
Title: Sustain the High Performance Computing Environment and Infrastructure in Support of the Army High Performance Computing Research Center's (AHPCRC) Research, Education, and Outreach Activities ***Articles:*** ***Description:*** Funding is provided for the following effort. ***FY 2013 Accomplishments:*** Supported the AHPCRC research, computational sciences environment, education, and outreach activities.	1.147 -	- -	- -
Accomplishments/Planned Programs Subtotals	6.965	5.232	5.231

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** 731 / *Army High Performance Computing Centers*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605803A / *Technical Information Activities*	Project (Number/Name) 733 / *Acquisition Tech Act*	

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
733: *Acquisition Tech Act*	-	13.220	2.503	4.748	-	4.748	5.277	3.339	3.401	6.813	-	-
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 improvements to the Army's acquisition process by applying decision support and expert information systems, and by supporting analysis and evaluation of alternative acquisition strategies using techniques such as value-added analysis and analysis-of-alternatives. This project provides the environment for the analysis and evaluation of new information technologies, concepts, and applications for integrated management activities and support dynamic Army acquisition technology requirements. This program supports analysis efforts to conduct critical analyses for Army leadership in support of Army Transformation. These analyses are used by leadership in making acquisition, procurement, and logistics decisions in order to provide quality equipment and procedures to the Soldiers.

The cited work is consistent with the Assistant Secreatary of Defense for Research and Engineering science and technology priority focus areas and the Army Modernization Strategy.

Work in this project is performed by the Army Acquisition Support Center, Ft. Belvoir, VA.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: ACQUISITION TECH ACT	7.589	2.503	4.748
Articles:	-	-	-
Description: Distribute and beta test application programs and user interface utilities for executive level information systems that offer Standard Query Language services to Army Acquisition Corps corporate and global databases. Analyze acquisition program financial programming and budgeting requirements. Continue development of Weapon Systems Handbook, long-range planning and policy analysis, resource allocation analysis, cost tracking, and analysis.			
FY 2013 Accomplishments: Distributed and beta tested application programs and user interface utilities for executive level information systems that offer Standard Query Language services to Army Acquisition Corps corporate and global databases; analyzed acquisition program financial programming and budgeting requirements; continued development of Weapon Systems Handbook, long-range planning and policy analysis, resource allocation analysis, cost tracking, and analysis.			
FY 2014 Plans: Distribute and beta test application programs and user interface utilities for executive level information systems that offer Standard Query Language services to Army Acquisition Corps corporate and global databases; analyze acquisition program financial			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** 733 / *Acquisition Tech Act*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
programming and budgeting requirements; continue development of Weapon Systems Handbook, long-range planning and policy analysis, resource allocation analysis, cost tracking, and analysis. ***FY 2015 Plans:*** Will distribute and beta test application programs and user interface utilities for executive level information systems that offer Standard Query Language services to Army Acquisition Corps corporate and global databases; will analyze acquisition program financial programming and budgeting requirements; will continue development of Weapon Systems Handbook, long-range planning and policy analysis, resource allocation analysis, cost tracking, and analysis.			
Title: Geospatial Acquisition Support Office (GASO).	5.631	-	-
Articles:	-	-	-
Description: These dollars will support the front end assessments of the PEO requirements to ensure that system's acquisition processes address geospatial concepts, technology and standards early in their development processes. Moreover, they are tasked to provide a geospatial baseline system of systems in theater, which is a near-term requirement that cannot be deferred. In FY14 these funds move to project DW3 in this Program Element. ***FY 2013 Accomplishments:*** Supported the front end assessments of the PEO requirements to ensure that system's acquisition processes address geospatial concepts, technology and standards early in their development processes and provide a geospatial baseline system of systems in theater, which was a near-term requirement that could not be deferred.			
Accomplishments/Planned Programs Subtotals	13.220	2.503	4.748

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605803A / *Technical Information Activities*	Project (Number/Name) C16 / *FAST*	

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
C16: *FAST*	-	2.305	1.368	1.442	-	1.442	1.978	1.796	1.663	1.692	-	-
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 support for the Field Assistance in Science and Technology (FAST) program. The FAST program provides Science advisers, recruited from Army Materiel Command (AMC) headquarters and all AMC Major Subordinate Commands (MSC) to serve combatant commands and major commands worldwide. FAST tours of duty provide significant professional growth opportunities for the Army's scientists and engineers and enable them to focus AMC resources on rapidly identifying and solving field technical problems that enable the improvement of readiness, safety, training, and reduce operations and support (O&S) costs. The FAST activity is supported by Quick Reaction Coordinators within the engineering centers. The FAST program recoups many times its cost in O&S savings. FAST also provides emerging technology demonstration opportunities to the engineering centers and executes a biannual Technology Applications Conference (TAC) on a rotating basis between Forces Command, US Army Europe, US Forces Korea/Eighth Armyassists COCOMS with their annual Science and Technology Conferences. FAST also maintains close coordination with the Navy Science Advisor Program (Naval Fleet Forces Technology Integration Office).FAST supports warfighters in OEF with embedded Science and Technology Assistance Teams (STATs) as well as Science and Technology Acquisition Corps Advisors (STACAs).

The cited work is consistent with the Assistant Secretary of Defense for Research and Engineering science and technology priority focus areas and the Army Modernization Strategy.

Work in this project is performed by the US Army Materiel Command (AMC), Ft. Belvoir, VAResearch, Development and Engineering Command (RDECOM), Aberdeen Proving Ground, MD.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Respond to combatant commanders worldwide with technological solutions.	2.305	1.368	1.442
Articles:	-	-	-
Description: Funding is provided for the following effort.			
FY 2013 Accomplishments: Responded to combatant commanders worldwide with technological solutions to urgent materiel problems they identify; deployed science advisors with US Task Forces in support of combatant commanders; executed biannual Technology Applications Conference.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** C16 / *FAST*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Respond to combatant commanders worldwide with technological solutions to urgent materiel problems they identify; deploy science advisors with US Task Forces in support of combatant commanders; execute biannual Technology Applications Conference. ***FY 2015 Plans:*** Will respond to combatant commanders worldwide with technological solutions to urgent materiel problems they identify; will deploy science advisors with US Task Forces in support of combatant commanders; will execute biannual Technology Applications Conference.			
Accomplishments/Planned Programs Subtotals	2.305	1.368	1.442

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605803A / *Technical Information Activities*	Project (Number/Name) C18 / *BAST*	

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
C18: *BAST*	-	1.269	0.636	1.000	-	1.000	1.467	1.195	1.078	1.085	-	-
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 funds the Board on Army Science and Technology (BAST). The BAST functions under the auspices of the National Research Council (NRC) an organization within the National Academies of Sciences and provides an external, independent, and objective source of advice to the Army. The BAST serves as a convening authority for the discussion of science and technology issues of importance to the Army and oversees independent Army-related studies conducted by the National Academies. Working in close coordination with the Army, the BAST helps define problems, brings together experts to study these problems, and provides recommendations. Committees are assembled in accordance with established NRC procedures and BAST studies often take 12 months or more to conclude.

The cited work is consistent with the Assistant Secretary of Defense for Research and Engineering science and technology priority focus areas and the Army Modernization Strategy.

Work in this project is executed extramurally by the U.S. Army Research Laboratory, Army Research Office (ARO), Research Triangle Park, NC.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Provide Studies and Conduct Periodic Meetings to Help Identify, Assess, and Recommend Emerging Opportunities in Science and Technology (S&T) Fields Applicable to the U.S. Army	1.269	0.636	1.000
Articles:	-	-	-
Description: Funding is provided for the following effort.			
FY 2013 Accomplishments: Studied emerging topics based on Army S&T strategy and senior leader initiatives.			
FY 2014 Plans: Study emerging topics based on Army S&T strategy and senior leader initiatives.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** C18 / *BAST*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Will study emerging topics based on Army S&T strategy and senior leader initiatives.			
Accomplishments/Planned Programs Subtotals	1.269	0.636	1.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605803A / *Technical Information Activities*	Project (Number/Name) DW3 / *Army Geospatial Enterprise Implementation*	

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
DW3: *Army Geospatial Enterprise Implementation*	-	-	5.174	2.891	-	2.891	1.083	3.054	3.168	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

A. Mission Description and Budget Item Justification

Support the development of Army geospatial enterprise architecture, geospatial standards and related technologies and provide engineering support to Army Acquisition Programs to enable and align with geospatial enterprise architecture, standards and prescribe technology in their development processes. The end outcome is to enable a baseline Army geospatial enterprise composed of core Army Programs that manage and disseminate geospatial data and provide geospatial services in support of Mission Command. Ensures Army has a Standard, Sharable, Geospatial Foundation and can exchange geospatial data across Mission Command Systems and with National System for Geospatial-Intelligence (NSG) partners as required by DoDI 5000.56. Previously funded in project 733 in this PE.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Geospatial Acquisition Support Office	-	5.174	2.891
Articles:	-	-	-
Description: This effort supports the systems engineering, architecture, and test and certification of Army Acquisition Systems to support PEO/PM Computing Environment geospatial requirements to ensure that system's acquisition processes address geospatial concepts, technology and standards early in their development processes and provide an interoperable geospatial baseline system of systems in theater, which is a near-term requirement that cannot be deferred.			
FY 2014 Plans: Develop front end assessments of the PEO requirements to ensure that system's acquisition processes address geospatial concepts, technology and standards early in their development processes and provide a geospatial baseline system of systems in theater, which is a near-term requirement that cannot be deferred.			
FY 2015 Plans: Will extend Army Geospatial Enterprise (AGE) implementation within the Common Operating Environment (COE); will develop and publish data model ensuring integration between US Marine Corp and Army and aligning with updated National System for Geospatial Intelligence (NSG) standards; will identify geospatial end state for "Good Enough" drill, will provide experimentation and pilot support including geospatial expertise to Common Operating Environment pilot project; will develop, with industry, a geospatial data standard for mobile handheld devices.			
Accomplishments/Planned Programs Subtotals	-	5.174	2.891

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605803A / *Technical Information Activities*	**Project (Number/Name)** DW3 / *Army Geospatial Enterprise Implementation*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605805A / *Munitions Standardization, Effectiveness and Safety*							
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	-	50.838	58.309	49.052	-	49.052	45.484	44.384	43.352	44.289	-	-
296: *Close Combat Technology*	-	6.228	4.217	4.719	-	4.719	2.742	2.806	2.858	2.922	-	-
297: *Mun Survivability & Log*	-	9.899	14.455	13.811	-	13.811	9.921	7.548	7.911	10.753	-	-
857: *DoD Explosives Safety Standards*	-	2.030	4.094	1.836	-	1.836	1.811	1.769	1.771	1.807	-	-
858: *Army Explosives Safety Management Program*	-	0.528	0.556	0.547	-	0.547	0.547	0.549	0.547	0.647	-	-
859: *Life Cycle Pilot Process*	-	3.345	9.556	4.610	-	4.610	5.047	5.004	5.387	5.486	-	-
862: *Indirect Fire And Fuze Technology*	-	3.959	8.620	7.898	-	7.898	8.690	8.349	6.432	5.255	-	-
F21: *Direct Fire Technology and NATO Ammo Eval*	-	10.449	7.028	6.867	-	6.867	6.204	5.407	4.336	3.802	-	-
F24: *Conventional Munitions Demil*	-	14.400	9.783	8.764	-	8.764	10.522	12.952	14.110	13.617	-	-

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

A. Mission Description and Budget Item Justification

This Program Element supports continuing technology investigations. It provides a coordinated tri-service mechanism for the collection and free exchange of technical data on the performance and effectiveness of all non-nuclear conventional munitions and weapons systems in a realistic operational environment. It provides for NATO interchangeability testing (F21); Joint munition effectiveness manuals used by all services; development of standardization agreements (STANAGS) and associated Manuals of Proof and Inspection (MOPI); operation of the North American Regional Test Center (NARTC); evaluation of demilitarization methods for existing conventional ammunition (F24); evaluation of useful shelf life, safety, reliability and producibility of pyrotechnic munitions; and improvement of explosives safety criteria for DOD munitions via the DOD Explosives Safety Board (857). Pyrotechnic Reliability and Safety (296) supports pyrotechnic research, development and testing to identify, characterize and resolve reliability, safety, storage and manufacturing issues that impact production availability and field use of pyrotechnics. Project 296 will result in the development and demonstration of new, safe, reliable and environmentally acceptable munitions. Munitions Survivability and Logistics (297) will make Army units more survivable by applying technologies to reduce the sensitivity of munitions to unplanned stimuli (e.g. bullet impacts, fragment impacts, fast cook off, slow cook off, sympathetic detonation, shaped charge jets) and by testing and demonstrating munitions logistics system solutions that prevent or minimize catastrophic explosive events and accelerate ammunition resupply. Project 297 also supports the Army Insensitive Munitions (IM) Board's reviews. The Army Explosives Safety Management Program (858) was established in FY01. The U.S. Army Technical Center for Explosives Safety uses the funds in this project to evaluate current explosives safety standards and develop new, scientific and risk-based standards to meet U. S. Army explosives requirements. The Life Cycle Pilot Program (LCPP) (859) will assess

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 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605805A *I Munitions Standardization, Effectiveness and Safety*

production base capabilities and needs over the acquisition life cycle of various munitions and will address the producibility of ammunition including the transition to type classification and production, and the ability of the production base to cost effectively produce quality products on schedule. The Fuze Technology Integration program (862) will improve performance and lower the costs of existing proximity fuzes and enable new applications in submunitions and medium caliber fuzes, addressing advanced proximity fuze sensor technology, Micro-electromechanical Systems (MEMS), Safety and Arming (S&A) technology, and Electronic S&A (ESA) technology for smart munitions.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	46.763	53.340	59.215	-	59.215
Current President's Budget	50.838	58.309	49.052	-	49.052
Total Adjustments	4.075	4.969	-10.163	-	-10.163
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-10.163	-	-10.163
• Other Adjustments 1	4.075	4.969	-	-	-

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2013	FY 2014
Project: 859: *Life Cycle Pilot Process*		
Congressional Add: *Project Change Summary*	-	5.000
Congressional Add Subtotals for Project: 859	-	5.000
Congressional Add Totals for all Projects	-	5.000

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	Project (Number/Name) 296 / *Close Combat Technology*	

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
296: *Close Combat Technology*	-	6.228	4.217	4.719	-	4.719	2.742	2.806	2.858	2.922	-	-
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 research, development and testing to identify, characterize and resolve reliability, safety, storage and manufacturing issues that impact production availability and field use of demolitions, grenades, shoulder launched munitions, mines and mine clearing charges and pyrotechnics, including training realism. Project will result in the development and demonstration of new, safe, reliable and environmentally acceptable munitions.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Environmentally Benign Smoke HHS (Hand Held Signals)	-	0.401	-
Articles:	-	-	-
Description: This program will address the health concerns in the smoke HHS (Hand Held Signals) by leveraging smoke technology developed through Engineering Qualification Test (EQT) funding for the Battlefield Effect System (BES) and M18 smoke grenade.			
FY 2014 Plans: Address health concerns in the HHS			
Title: Grenade Fuze Sychronization Effort	-	0.450	0.150
Articles:	-	-	-
Description: Program effort to adapt a M201 Fuze body with an interchangable Pyrotechnic delay cartridge that can be utilized as an M228, M208 or M213 Fuze. Program is a product effeciency which would significantly reduce manufacturing cost of fuzes, logistic burden, and engineering support cost while reducing critical inspections and pull force requirements across all grenades.			
FY 2014 Plans: Continue Grenade Fuze Sychronization Effort			
FY 2015 Plans: One Fuze across multiple grenades at a much lower cost. Preliminary design and drawings are available from the FTI (Fuze Technology Integration) and this would be a follow on effort to verify the production readiness and grenade integration impacts across multiple programs.			
Title: Discriminating Passive Infrared Sensor (PIR) for the M4A1 Selectable Lighweight Attack Munition (SLAM)	-	0.600	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 296 / *Close Combat Technology*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Articles:	-	-	-
Description: The M4A1 SLAM has four modes of operational engagement of its vehicle targets. One of the modes is a Side-Attack Mode which utilizes the SLAM's built-in passive infrared (PIR) sensor to detect the thermal signatures of passing vehicles to trigger and fire its explosively formed penetrator (EFP) warhead to defeat the target. If the current US Landmine Policy were to exceed to the Ottawa Convention Treaty, then the existing M4A1 SLAM's PIR feature will render the SLAM non-compliant to the Ottawa restrictions. The current PIR design does not have the ability to discriminate between vehicle and personnel when a potential target is detected. Without a replacement PIR design, the SLAM will lose one of its four operation modes to engage vehicle targets and unable to meet all of its intented missions. ***FY 2014 Plans:*** Continue Side Attack Mode development			
Title: Nano Technology for Small HHS (Hand Held Signals)	-	0.532	-
Articles:	-	-	-
Description: Leverage nano technology to reduce the ammunition logistical burden (reduce size and weight of current HHS (Hand Held Signals) while maintaining current performance). Reduce size and weight that soldier has to carry while maintaining capability. ***FY 2014 Plans:*** To reduce the ammunition logistical burden.			
Title: Aircraft Countermeasure Improvements (LA14, LA15, MG62, L410)	0.483	-	-
Articles:	-	-	-
Description: This program covers the upgrade of Army aircraft countermeasures to maintain effectiveness against the ever evolving threat. It covers the M206, M211/M212 series of flares, the M839 chaff cartridge, and the M796/BBU-35 impulse cartridge. Goals are to increase overall decoy effectiveness, decrease observability, and optimize performance for the various rotory and fixed wing Army aircraft. ***FY 2013 Accomplishments:*** FY13 efforts is to increase overall decoy effectiveness, decrease observability, and optimize performance for the various rotory and fixed wing Army aircraft.			
Title: Dual Payload (M206)	-	1.012	1.012
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 296 / *Close Combat Technology*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Add an extended source (Infrared Cloud) material to the M206 Flare. Justification: Test data has shown single flare effectiveness can be increased with the addition of an extended IR (Infrared) source. Impact: increased number of countermeasure dispenses and reduce logistical burden. ***FY 2014 Plans:*** Add an extended source (Infrared Cloud) material to the M206 Flare ***FY 2015 Plans:*** M206 countermeasure flare effectiveness will be improved by adding Special Material. Performance - Increased effectiveness by doubling the countermeasure engagements that can respond to missile threat. Performance & Efficiency - Increases mission flight profiles.			
Title: Degradable Chaff & Low Frequency Chaff (M1/M839) ***Articles:*** ***Description:*** Develop chaff that will: 1) After dispense, lose its RF (Radio Frequency) component. 2) Disperse and bloom rapidly with minimal clumping and birdnesting even when used at low speeds from a hovering helicopter. 3) Enhance coverage in the low frequency range. 4) Type classify RR170 Chaff for Army use. Justification: the long persistence of Chaff causes interference with fire control and air traffic control radar. Impact: chaff will continue to interfere with control and tracking radar, limiting its use in the field and training. ***FY 2014 Plans:*** Degradable Chaff & Low Frequency Chaff ***FY 2015 Plans:*** The operationally degradable chaff will address operational and training issues with chaff persistence. Performance - Increase frequency coverage where current Chaff lacks. Performance - Reduction of clumping and birdnesting will make the chaff more effective. Safety - Reduce interference with Traffic Control radars and aircraft radar systems. Environmental - Mitigates impact to farm animals that eat active dipoles after chaff deployment.	- -	0.817 -	0.817 -
Title: Demolition Initiator Packaging - Skin Pack (MDI DODICS) ***Articles:*** ***Description:*** Current spool design is bulky, hard to conceal in urban environments and has potential for tangling. This project will develop a lighter, easily deployable and more reliable deployment method. It will have the added advantage of being compatible with Explosive Ordnance Disposal robotics.	0.055 -	0.055 -	- -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 296 / *Close Combat Technology*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Develop a lighter, easily deployable and more reliable deployment method ***FY 2014 Plans:*** Develop a lighter, easily deployable and more reliable deployment method			
Title: Environmentally Benign Smoke Hand Held Signals (L306, L307, L311, L312, L314)	0.432	-	-
Articles:	-	-	-
Description: This program will address the health concerns in the smoke HHS (Hand Held Signals) by leveraging smoke technology developed through Environmental Quality Testing and M18 smoke grenade. Current configuration has hazardous components in the smoke composition and cannot be procured. ***FY 2013 Accomplishments:*** FY13 efforts are to leverage smoke technology developed through Environmental Quality Testing and M18 smoke grenade. Current configuration has hazardous components in the smoke composition and cannot be procured.			
Title: Environmentally Benign Colored Smoke Formulations - M18 Red/Violet Smoke Grenades (G950/G955)	0.241	-	-
Articles:	-	-	-
Description: The project addresses Army Environmental Requirements and Technology Assessments requirement (AERTA) PP-3-02-4 and Environmentally Sustainable Energetics Workshop List of Concerns PGP-09-02 for the removal of sulfur and hazardous dyes from current formulations. New formulations will replace the sulfur based red and violet M18 formulations for all future production. Justification: AERTA requirement Impact: Without change to the formulation, User will continue to be exposed to potention inhalation hazard. ***FY 2013 Accomplishments:*** FY13 efforts addresses AERTA requirement AERTA PP-3-02-4 and Environmentally Sustainable Energetics Workshop List of Concerns PGP-09-02 for the removal of sulfur and hazardous dyes from current formulations. New formulations will replace the sulfur based red and violet M18 formulations for all future production.			
Title: MK3A2 Replacement, Concussion Grenade Optimization Effort	0.316	0.350	1.500
Articles:	-	-	-
Description: This effort incorporates modern materials and insensitive explosives to provide a safer, producible concussion grenade. Use of the MK3A2 Offensive grenade has been suspended due to age and safety issues. The current MK3A2 can			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 296 / *Close Combat Technology*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
expose the Soldier to toxic levels of asbestos. War fighters cannot safely employ the offensive grenade. Alternate munitions such as the M84 do not satisfy User needs for incapacitation of the enemy. ***FY 2013 Accomplishments:*** Finalize the redesign of the MK3A2 grenade;perform residual tests to justify the ECPs required to update the TDPL (Technical Data Package List); update associated documents (SDZ (Surface Danger Zone), FHC (Final Hazard Classification) etc.); Justification: There is current funding to remove the existing safety hazard (asbestos) in the MK3A2. In addtion, the User has stated this capability is still required. Impact: If not funded, the MK3A2 redesign would not occur and the safety Hazard would still exist. In additon, no new MK3A2s would be allowed to be manufactured to the old TDP (Technical Data Package). ***FY 2014 Plans:*** Finalize the redesign of the MK3A2 grenade;perform residual tests to justify the ECPs required to update the TDPL (Technical Data Package List); update associated documents (SDZ (Surface Danger Zone), FHC (Final Hazard Classification) etc.); Justification: There is current funding to remove the existing safety hazard (asbestos) in the MK3A2. In addtion, the User has stated this capability is still required. Impact: If not funded, the MK3A2 redesign would not occur and the safety Hazard would still exist. In additon, no new MK3A2s would be allowed to be manufactured to the old TDP (Technical Data Package). ***FY 2015 Plans:*** 1) Fabrication of Multi Cavity Die and proveout. 2) Fuze and Packaging procurement. 3) Injection molding of 250 grenades. 4) LAP and Marking of grenades. 5) Engineering level testing.			
Title: Dual Payload M206 Aircraft Countermeasure Flare/ Pyro (L410) ***Articles:*** ***Description:*** M206 countermeasure flare effectiveness will be improved by adding extended source (Infrared Cloud) material. Benefit include increased effectiveness and doubling the countermeasure engagements that can respond to missile threat. ***FY 2013 Accomplishments:*** Add a extended source (Infrared Cloud) material to the M206 Flare. Justification: Test data has shown single flare effectiveness can be increased with the addition of an extended IR source. Impact: contunued reduced number of countermeasure solutions.	0.776 -	- -	- -
Title: Radio Frequency (RF) Remote Activation Munitions (RAM) ***Articles:*** ***Description:*** Reduce unit costs and address parts obsolescence ***FY 2013 Accomplishments:***	0.675 -	- -	0.722 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 296 / *Close Combat Technology*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
A low cost RF-RAMs receiver (MK16) will be re-designed, prototyped, tested and made available for production and fielding ***FY 2015 Plans:*** A low cost reusable RF-RAMS MK16 receiver will be re-designed with state of the art controller and safety circuitry to reduce its size, cost and enhance safety. The current RF-RAMS receiver contract cost is approximately $3,000 in quantities above 930. The goal of this effort is to update the existing receiver design and implement improved manufacturing processes to reduce the cost. The low cost MK16 receiver will integrate several manufacturing and producibility improvements to reduce production costs from approximately $3,000 to a production unit cost goal of less than $1,000.			
Title: Dial-a-color Smk Grenade/G911 Design	3.150	-	-
Articles:	-	-	-
Description: Develop a multi-color, selectable smoke grenade capable of providing obscuration/signaling similar to M18 colored smoke grenades. Revise design of G911. ***FY 2013 Accomplishments:*** 1. Less Weight to Carry (1 grenade vs up to 5). 2.Multi-Purpose (Multiple colors). 3. Environmentally Benign. 4. Consolidates M18 Production. 5. Reduces Logistic Burden.			
Title: Claymore Force-on-Force TADSS Trainer	-	-	0.518
Description: Claymore Force-on-Force TADSS Trainer ***FY 2015 Plans:*** Develop an improved Claymore Force-on-Force Trainer. While the Claymore is one of the most popular items used by the soldier, the system does not have a TADSS trainer with sight, sound & MILES capability. Development of an improved Claymore trainer will allow Claymore to be trained at CTCs and will provide more realistic and effective training for the user when they are training Claymore as an end item and when training Claymore as initiated by Spider.			
Title: Indramic Wax SPF	0.100	-	-
Articles:	-	-	-
Description: Supplier is discontinuing grade of wax primarily used by Army in the production of explosives. An alternate wax is available, but the goal is to qualify an additional wax as a risk mitigator. ***FY 2013 Accomplishments:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 296 / *Close Combat Technology*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Supplier is discontinuing grade of wax primarily used by Army in the production of explosives. An alternate wax is available, but the goal is to qualify an additional wax as a risk mitigator.			
Accomplishments/Planned Programs Subtotals	6.228	4.217	4.719

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	Project (Number/Name) 297 / *Mun Survivability & Log*	

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
297: *Mun Survivability & Log*	-	9.899	14.455	13.811	-	13.811	9.921	7.548	7.911	10.753	-	-
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 future force by making Army units more survivable through the investigation, testing and demonstration of munitions logistics system improvements that prevent or minimize catastrophic explosive events and accelerate ammunition resupply. Key thrusts are munitions storage area survivability, Insensitive Munitions (IM) technology integration and compliance, ammunition management and asset visibility, weapon system rearm, munitions configured load enablers and advanced packaging and distribution system enhancements. Within each thrust, a broad array of solutions will be identified, tested, and evaluated against developed system measures of effectiveness. Optimum, cost effective and efficient solutions that enable the rapid projection of lethal and survivable forces will be demonstrated. The early stages of force deployment are especially critical. Theater ammunition storage areas are vulnerable and present the enemy with lucrative targets. These areas and distribution nodes contain the only available munitions stocks in theater. Loss of these munitions could cripple the force, jeopardize the mission, and result in high loss of life. This project mitigates vulnerabilities and ensures a survivable fighting force.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Munitions Predictive Life	1.081	1.996	1.537
Articles:	-	-	-

Description: This program will demonstrate technologies and algorithms that can help assess munitions serviceability based upon aggregate environmental exposures, system cycling and munition degradation models. The program will provide life cycle management tools for risk mitigation strategies, while reducing testing, inspection & surveillance required and improving weapon system reliability & and warfighter effectiveness.

FY 2013 Accomplishments:

Collected environmental data and developed algorithmic models that will relate temperature conditions seen at the container and ammunition item level to those seen at the pallet level for improved reliability forecasting and more cost effective sensor placement. Demonstrated a shock/vibration sensor reliability device powered by vibration induced energy. Conducted analysis of reliability documentation for an initial two ammunition families in databases and identify reliability and risk threshold levels. Conducted validation testing of passive credit card sized temperature sensors. Down-selected embedded propellant reliability sensor candidate and calibrated it to enable real-time monitoring of the effects of environmental exposure on ammunition propellant stability/reliability.

FY 2014 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 297 / *Mun Survivability & Log*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Complete environmental data collection and validate algorithmic models that can accurately estimate the temperature exposure of munitions based on location, storage area type, and munition type. Based on reliability and risk threshold levels developed from ammunition database analysis, develop algorithmic procedures that can be applied periodically to evaluate reliability and risk and determine functionality inspection requirements for two ammunition families. Conduct accelerated aging of propellant and calibrate and verify the embedded propellant reliability sensor. ***FY 2015 Plans:*** Incorporate temperature exposure algorithmic models of munitions based on location, storage area type, and munition type into the Munitions History Program software tool. Conduct validation testing of the reliability and risk evaluation algorithmic procedures for initial two ammunition families. Integrate propellant sensor device with propellant packaging and conduct demonstration. Conduct market survey of passive Radio Frequency Identification and low cost active environmental sensors for munitions, select viable candidates, and test.			
Title: Munitions Containerization Program	0.585	0.500	-
Articles:	-	-	-
Description: This program will demonstrate next generation packaging, with standardized dimensions/interfaces, that considers unit of issue, permits easy reconfiguration and that is reusable, nestable, automation friendly, and survivable. This new packaging (Ammoblocks) will permit the safe packing and shipping of more and different types of ammo together in user tailored loads; facilitate rapid, less labor intensive reconfiguration and resupply; and facilitate automation upgrades of load/assemble/pack and battlefield resupply operations. ***FY 2013 Accomplishments:*** Developed concepts and designs for flexible ammunition palletized load unitization techniques. ***FY 2014 Plans:*** Fabricate hardware and test designs for flexible ammunition palletized load unitization techniques/			
Title: Improved Munitions Packaging	1.289	1.610	2.362
Articles:	-	-	-
Description: This program will demonstrate upgrades to existing packaging components and materials to improve legacy ammunition survivability. These upgrades will enhance ammunition survivability and reliability, improve field ammunition operations, and improve packaging producibility. ***FY 2013 Accomplishments:*** Completed verification of modeling analysis of HDPE cylindrical containers as replacements for current 120mm tank and 120mm/81mm mortar packaging. Completed design and fabricate prototypes of low cost ammunition bandoleers. Completed			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 297 / *Mun Survivability & Log*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
user evaluation of improved security seals for rectangular ammunition containers. Designed and tested plastic sealed pouches for 5.56mm ammunition that will reduce production costs and improve container volume usage efficiency. Conducted a market survey of and developed a test plan for non-copper based Environmental Protection Agency registered preservatives for wood packaging materials that if validated will increase the quantity and types of preservative available and reduce ammunition life-cycle costs. Designed a testing process review tool to aid test working groups in streamlining ammunition packaging test plans and procedures and eliminating redundancies while reducing time and resources. Developed preliminary formulations of solar reflective matte finish paint to reduce the impact of solar heating on ammunition and ammunition packaging. ***FY 2014 Plans:*** Fabricate prototypes, conduct engineering testing, and finalize design of HDPE cylindrical containers as replacements for current 120mm tank and 120mm/81mm mortar packaging. Complete engineering testing and conduct an operational demonstration of improved prototype low cost ammunition bandoleers and transition. Conduct user evaluation of plastic sealed pouches for 5.56mm ammunition that will reduce production costs and improve container volume usage efficiency. Conduct testing of non-copper based Environmental Protection Agency registered preservatives for wood packaging materials and determine best candidates for use with ammunition packaging. Complete evaluation of packaging test requirements and develop recommendations for any potential changes identified. Complete engineering testing of solar reflective matte finish paint and develop a performance specification. ***FY 2015 Plans:*** Conduct field demonstration and verification tests of HDPE cylindrical containers as replacements for current 120mm tank and 120mm/81mm mortar packaging and transition. Complete life cycle testing and conduct a system demonstration and a producibility analysis of ammunition containers coated with solar reflective matte finish paint. Develop the design of a plastic polymer container for 5.56mm ammunition containers to be used in conjunction with plastic sealed ammunition pouches to reduce packaging weight and production costs. Develop requirements and complete design concept for unit of issue packaging that provides continuous environmental protection at the ammunition level instead of the container level.			
Title: Insensitive Munitions (IM) Integration Program	5.216	8.708	8.300
Articles:	-	-	-
Description: Demonstrate multiple IM technologies and integrate into end item(s) to improve munitions survivability and warfighter safety. IM Technologies, using State-of-the-Art materials, will be developed in the areas of warhead, propulsion and propellants, explosives, packaging, and barriers. In addition, modeling and simulation will be used to reduce development and testing costs. Efforts will increase the number of IM compliant ammunition items fielded to mitigate munitions reaction to unplanned stimuli such as fire, fragments, cook-off, bullets, adjacent munitions reaction (sympathetic detonation), and shape charge jet attacks.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 297 / *Mun Survivability & Log*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015

FY 2013 Accomplishments:

Optimized the insensitive explosive IMX-104, for M795 155MM Artillery round IM Precision Guidance Kit (PGK) compatible projectiles, produced pre-fabricated pressed IMX-104, and performed static initiation tests in M795 Insensitive Munitions (IM) projectile. Pressed IMX-104 explosive transfer charges to appropriate length and fit into the deep well drilled M795 IM PGK configuration. Performed engineering and Insensitive Munitions (IM) tests to down select an explosive replacement for the H6 explosive, which is the main fill in the M039 Demo Charge. Performed a series of engineering tests to replace Comp B and Comp A3 explosives in the M3A1 40-lb Shaped Charge with the insensitive explosives IMX-104 and PAX-46. Fabricated multiple IM enhanced packaging containers to allow the M3A1 40-lb Shaped Charge to pass IM tests. Produced small scale quantities of IM explosives to replace Comp B in the M67 Grenade and conduct individual grenade lethality and insensitivity tests. Formulated the first iteration set of explosives to replace the N5 explosive in the 30mm M789. Fabricated, for Hand Held Signals, a packaging container Catch Cage enclosure and conducted IM testing. Manufactured Modular Artillery Charge System (MACS) Containers with Sealed Seam Technology (SST) and completed IM and sequential rough handling tests. Fabricated and tested for the 105mm M1 Artillery round, a Cartridge Case Adapter kit, IM enhanced dunnage, packaging container integrated with Ionomer Vent Windows, plastic projectile plug, and pallet level impact barriers. Proved out the Ventrex 2 propulsion system technology on the 120mm Mortar.

FY 2014 Plans:

Finalize all engineering and IM tests in order to transition to Project Manager (PM) Combat Ammunition Systems (CAS) a pressed IMX-104 transfer and supplemental charge explosives for the M795 IM PGK compatible projectiles. Transfer to PM CAS an IM enhanced MACS container integrated with the Sealed Seam venting technology. For the IM enhanced 105mm M1 Artillery round with multiple IM technologies, complete the following: all IM tests, small scale lethality tests, and sequential rough handling. After finalizing all PM required testing, transition to PM Close Combat Systems (CCS): (1) the Aluminized IMX-104 explosive to replace H6 in the M039 Cratering Charge; (2) an IM enhanced M3A1 40-lb Shaped Charge containing two IM explosives and an IM enhanced packaging container; (3) an IM melt cast explosive formulation to replace Comp B in the M67 Grenade; (4) Optimized IM-enhanced Catch Cage Dunnage enclosure for the Hand Held Signals. Perform engineering and IM tests to optimize the multiple IM technologies being developed for the 30mm M789 cartridge: explosive, warhead and cartridge case venting, packaging, and pallet barriers. Fabricate and perform IM and logistics tests on IM enhanced packaging containers for the M67 Grenade and 30mm M789 ammunition. Perform IM tests on the 30mm M789 to validate the IM enhanced cartridge case and perform initial small scale IM propellant tests. Complete new iteration of multiple integration IM tests for the IM enhanced 40mm M430A1 Cartridge.

FY 2015 Plans:

Conduct IM and performance tests and transition the following technologies to the specified PM. To PM-CAS transition an IM enhanced 105mm Artillery Round with proven IM technologies for cartridge case, packaging, projectile, and barriers. To PM

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 297 / *Mun Survivability & Log*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
CCS transition an IM enhanced LW30mm M789 and M67 Grenade containing multiple IM technologies. Integrate, test, and transition DNMT and DEMN energetics based explosives for direct and indirect fire munitions. Formulate novel IM propellants and propulsion system venting technologies for medium caliber and artillery munitions. Optimize multiple IM technologies for 40mm Low Velocity Grenade pertaining to cartridge case, warhead, and packaging. Apply novel IM venting mechanisms using smart materials, bi-metallic fastening or eutectic materials for venting of 30mm and 40mm cartridges for energetics and propulsion systems. Demonstrate multiple IM temperature and/or pressure sensitive technologies for cylindrical and rectangular munition containers.			
Title: Ammo Provider	1.728	1.641	1.612
Articles:	-	-	-
Description: This program demonstrates technologies that will assure a survivable munitions logistics system by increasing distribution velocity and protecting ammo storage areas. Technology areas to be investigated include ammunition asset visibility (including environmental sensors, marking technologies, and supply chain modeling), ammunition management (including improvements in stockpile surveillance and condition based management), sustainment (including pre-configured loads (soldier to unit size), field ammo reconfiguration capability, robotic handling, and improved load building capability), and force protection (including site planning software and field storage protection)			
FY 2013 Accomplishments: Demonstrated re-warehousing plan generation and depot receipt planning and optimization capabilities and incorporate them into an ammunition igloo storage optimization software tool. Completed safety testing and user demonstration of a helicopter delivered robust supply speedbag. Completed testing and evaluation of an ammunition packaging dunnage on demand system for improved battlefield retrograde. Conducted operational evaluation with Excalibur and engineering testing of a munitions environmental health monitoring system that tracks temperature, humidity, and shock experienced to provide instant ammunition readiness status to soldiers. Developed test load configurations and evaluation criteria for assessing the propagation potential and degree of violence expected when tactical ammunition configured loads are subjected to various unplanned combat stimuli.			
FY 2014 Plans: Incorporate re-warehousing time and cost planning capability and conduct system testing and demonstration of the ammunition igloo storage optimization software tool. Complete operational testing and warfighter evaluation of the helicopter delivered robust supply speedbag. Complete testing of and technical data package for a munitions environmental health monitoring system and transition. Complete modeling and simulation of the reaction of tactical ammunition configured loads to unplanned stimuli. Complete market survey of commercial airbags for use as a replacement for wood dunnage in ammunition shipping containers and conduct performance testing of leading candidates.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 297 / *Mun Survivability & Log*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Integrate the results from the modeling and simulation of the reaction of tactical ammunition configured loads to unplanned stimuli into load building software to facilitate the assembly of safer, more survivable loads. Complete user testing and evaluation of commercial airbags for use as a replacement for wood dunnage in ammunition shipping containers and develop business case analysis for implementation. Conduct market survey and characterization testing of advanced barrier materials that can be used to mitigate impact and shock at the container, or pallet level. Determine requirements and design a portable digital environment to automate work assignment, processing, and completion during ammunition field operations.			
Accomplishments/Planned Programs Subtotals	9.899	14.455	13.811

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	Project (Number/Name) 857 / *DoD Explosives Safety Standards*	

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
857: *DoD Explosives Safety Standards*	-	2.030	4.094	1.836	-	1.836	1.811	1.769	1.771	1.807	-	-
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 supports the Research, Development, Test, and Evaluation efforts of the DoD Explosive Safety Standards Board. It supports explosive safety effects research and testing to quantify hazards and to develop techniques to mitigate those hazards in all DoD manufacturing, testing, transportation, maintenance, storage, disposal of ammunition and explosives operations, and also to develop risk based explosives safety standards. Results are essential to the development and improvement of quantity-distance standards, hazard classification procedures, cost effective explosion-resistant facility design procedures, and personnel hazard/ protection criteria.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Explosive and Munitions Tests	0.125	0.160	0.113
Articles:	-	-	-
Description: Funding is provided for the following effort			
FY 2013 Accomplishments: Develop improved explosives and munitions tests and characterization data. Specifically, develop improved gap tests for rocket motors.			
FY 2014 Plans: Develop improved explosives and munitions tests and characterization data. Specifically, continue development of improved gap tests for rocket motors.			
FY 2015 Plans: Develop improved explosives and munitions tests and characterization data. Specifically, continue development of improved gap tests for rocket motors			
Title: Safety Guidelines	1.250	1.485	1.131
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 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 857 / *DoD Explosives Safety Standards*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Develop improved DoD and NATO explosives safety guidelines for munitions storage, explosives and field operation facilities. Prepare revised Dod 6055.9-STD and 4145.26M. ***FY 2014 Plans:*** Develop improved DoD and NATO explosives safety guidelines for munitions storage, explosives and field operation facilities. Prepare revised Dod 6055.9-STD and 4145.26M. ***FY 2015 Plans:*** Develop improved DoD and NATO explosives safety guidelines for munitions storage, explosives and field operation facilities. Prepare revised Dod 6055.9-STD and 4145.26M.			
Title: Explosive Safety Database ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2014 Plans:*** Conduct other hazards analyses and expand/automate explosives safety databases. Develop improved Explosives Safety Mishap Analysis Module with links to accident reports.	- -	1.520 -	- -
Title: Analysis Tools ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2013 Accomplishments:*** Develop and improve risk based analysis tools for explosives safety. Develop sequence of operations prototype. ***FY 2014 Plans:*** Develop and improve risk based analysis tools for explosives safety. Develop sequence of operations prototype ***FY 2015 Plans:*** Will develop and improve risk based analysis tools for explosives safety. Will develop sequence of operations prototype.	0.655 -	0.929 -	0.592 -
Accomplishments/Planned Programs Subtotals	2.030	4.094	1.836

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 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 857 / *DoD Explosives Safety Standards*

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605805A / *Munitions Standardization, Effectiveness and Safety*				Project (Number/Name) 858 / *Army Explosives Safety Management 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**
858: *Army Explosives Safety Management Program*	-	0.528	0.556	0.547	-	0.547	0.547	0.549	0.547	0.647	-	-
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 establishes, validates or modifies explosives technical safety requirements per Army Regulation 385-64, Ammunition and Explosives Safety Standards. Project activities promote RDT&E of new and innovative explosives safety technologies that improve the survivability of Army personnel, facilities, and equipment as well as improve the health, safety and welfare of the general public.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Risk based explosives safety criteria	0.115	0.141	0.135
Articles:	-	-	-
Description: Development of risk based explosives safety criteria that will aid commanders and safety personnel in the transition from regulation to risk management. ***FY 2013 Accomplishments:*** Continued explosives testing and support of hazard research and exposure consequences. ***FY 2014 Plans:*** Continue explosives testing and support of hazard research and exposure consequences. ***FY 2015 Plans:*** Continue explosives testing and support of hazard research and exposure consequences.			
Title: Development of enhanced protective structure designs	0.195	0.200	0.200
Articles:	-	-	-
Description: Develop enhanced protective structure designs that improve the survivability of Army personnel, facilities and equipment. ***FY 2013 Accomplishments:*** Continued explosives testing and support for improving protective construction designs. ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 858 / *Army Explosives Safety Management Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continue explosives testing and support for improving protective construction designs. ***FY 2015 Plans:*** Continue explosives testing and support for improving protective construction designs.			
Title: Development of explosive safety tools ***Articles:*** ***Description:*** Develop explosive safety tools for use by Army personnel. Explosive safety tools allow commanders and safety personnel to make explosive safety decisions using risk management methodologies. ***FY 2013 Accomplishments:*** Continued development of new methods and tools for risk assessment to improve explosive safety risk management decisions. ***FY 2014 Plans:*** Continue development of new methods and tools for risk assessment to improve explosive safety risk management decisions. ***FY 2015 Plans:*** Continue development of new methods and tools for risk assessment to improve explosive safety risk management decisions.	0.218 -	0.215 -	0.212 -
Accomplishments/Planned Programs Subtotals	0.528	0.556	0.547

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	Project (Number/Name) 859 / *Life Cycle Pilot Process*	

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
859: *Life Cycle Pilot Process*	-	3.345	9.556	4.610	-	4.610	5.047	5.004	5.387	5.486	-	-
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 implementation of the Single Manager for Conventional Ammunition (SMCA) Industrial Base Strategic Plan through technology investigations, model based process controls, pilot prototyping, and industrial assessments. It will assess life cycle production capabilities required for all ammunition families, address design for manufacturability to facilitate economical production, identify industrial and technology requirements, and address the ability of the production base to rapidly and cost effectively produce quality products. Cost Reduction is an important part of the Life Cycle Pilot Process (LCPP). LCPP provides the resources to prototype critical technologies and develop the knowledge base to establish cost effective, environmentally safe and modern production processes in support of the Munitions Industrial Base transformation.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Product Cost Thrust Area	1.010	1.171	1.258
Articles:	-	-	-
Description: This thrust area seeks out new opportunities to reduce overall manufacturing costs of ammunition and ammunition components. RDTE efforts will review and analyze legacy manufacturing processing for opportunities to integrate new technology and lean manufacturing processes to reduce cost.			
FY 2013 Accomplishments: Continue work on Advanced Cluster Energetics (ACE) Fluid Energy Mill (FEM) on High Melt Explosives (HMX) / Research & Development Explosives (RDX) Formulations and Environmentally Benign Colored Smoke. Complete Insensitive Munitions Explosives (IMX) waste treatment. Start work on Foamed Starter Patch, multi-use ultrasound probe to improve RDX/HMX quality and Nitrocellulose (NC) model verification.			
FY 2014 Plans: Complete Environmentally Benign Colored Smoke. Continue work on ACE FEM on HMX/RDX Formulations, Foamed Starter Patch, multi-use ultrasound probe to improve RDX/HMX quality and NC model verification. Evaluate new technology for legacy processes to reduce overall production costs for the Army.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 859 / *Life Cycle Pilot Process*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Complete ACE FEM on HMX/RDX Formulations, Foamed Starter Patch, multi-use ultrasound probe to improve RDX/HMX quality and NC model verification. Evaluate new technology for legacy processes to reduce overall production costs for the Army.			
Title: Single Point Failures (SPFs)	1.369	1.458	1.435
Articles:	-	-	-
Description: Project thrust area efforts will employ manufacturing technologies to address SPFs. These projects are part of the overall strategy to reduce the number of SPFs in the National Technology Industrial Base (NTIB). Additionally, thrust area efforts address ammunition manufacturing capability shortfalls. This area leverages RDTE accomplishments and product knowledge to satisfy manufacturing requirements. ***FY 2013 Accomplishments:*** Continue work on Commercial Off-The-Shelf (COTS) primer for grenades. Mitigation of High Frequency (HF-1) Steel single point failure. ***FY 2014 Plans:*** Complete COTS Primer for grenades. Continue work on mitigation of HF-1 Steel single point failure. Continue development of manufacturing technology and processes for SPFs. Efforts will address source of supply problems within the NTIB. ***FY 2015 Plans:*** Complete mitigation of HF-1 Steel single point failure. Continue development of manufacturing technology and processes for SPFs. Efforts will address source of supply problems within the NTIB.			
Title: Manufacturing Technology for Industrial Base Transformation	0.966	1.927	1.917
Articles:	-	-	-
Description: Project thrust area identifies and develops technologies that can be utilized at multiple government and private ammunition manufacturing locations to transform the NTIB. ***FY 2013 Accomplishments:*** Complete work on application of metal casting technology to improve explosive casting quality and flexible cooling ovens. Continue work on use of Ultrasound Analyzer for process control in explosives manufacturing. Start method to mark Insensitive Munitions (IM) filled munitions, IMX Waste Stream Modeling, and Counter Current Ion Exchange for nitrate laden waste treatment. ***FY 2014 Plans:*** Complete method to mark IM filled munitions and IMX Waste Stream Modeling. Continue Ultrasound Analyzer for process control in explosives manufacturing and Counter Current Ion Exchange projects for nitrate laden waste treatment. Investigate			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 859 / *Life Cycle Pilot Process*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
potential technologies to transform key manufacturing processes in the NTIB. Continue investigations, develop and document manufacturing technology for transition to the NTIB. ***FY 2015 Plans:*** Complete Ultrasound Analyzer for process control in explosives manufacturing and Counter Current Ion Exchange for nitrate laden waste treatment. Investigate potential technologies to transform key manufacturing processes in the NTIB. Continue investigations, develop and document manufacturing technology for transition to the NTIB.			
Accomplishments/Planned Programs Subtotals	3.345	4.556	4.610

	FY 2013	FY 2014
Congressional Add: Project Change Summary	-	5.000
FY 2014 Plans: FY 2014		
Congressional Adds Subtotals	-	5.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	Project (Number/Name) 862 / *Indirect Fire And Fuze Technology*	

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
862: *Indirect Fire And Fuze Technology*	-	3.959	8.620	7.898	-	7.898	8.690	8.349	6.432	5.255	-	-
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 will identify, study, analyze and support enhanced lethality, range extension and standardization to improve target engagement effectiveness; increase reliability, safety, and exportability; and reduce taxpayer costs including elimination of sole source supply of indirect fires ammunition materials as well as studies and analyses of such technology solutions in comparison to current stock pile indirect fire conventional munitions and their associated production processes. Additionally, environmental impacts of legacy propellants, explosives and metal parts will be studied. Replacement of hazardous materials such as Ammonium Perchlorate, Diphenylamine, Lead, etc. and addition of propellant anti-tubewear additives will remain a focus. This program support the standardization and interoperability of legacy and new production ammunition to maximize munitions battlefield interchangeability/compatibility between 52 and 39 caliber guns under the auspices of the international Joint Ballistics Memorandum Of Understanding (JBMOU) as well as rifled and smooth-bore mortars. Maximizing standardization, interchangeability, and exportability will potentially increase FMS sales of US products to maintain domestic production and economies of scale.

This program will also identify, study, analyze and support fuzing and safe and arm devices. This program will implement these technologies into fuzing systems to preclude obsolescence, maximize standardization, enhance performance, and improve the safety and exportability of existing munitions. The program addresses two major areas: (1) analysis and (2) block upgrades. Analysis efforts will identify second sources for fuzing systems that may reduce cost by providing competition, and maintain production when sources or parts are no longer available. It will also allow for the performance enhancement of current ammunition items by conducting studies of major fuze components to detect and identify latent defects. The second major area is block upgrades, which will identify and perform studies on improvements to fuzes; increase commonality of fuze components and requirements. Block upgrades will enable the introduction of the latest technologies into fuzing, keep the fuzing design current to avoid obsolescence issues, and add capabilities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Indirect Fire & Fuze ARDEC Support.	0.955	1.958	1.809
Articles:	-	-	-
Description: Analysis: Evaluated Micro Electro-mechanical Systems (MEMS) component alternatives to increase sources of supply and lower cost; affects 40mm High Explosive Point Detonating grenade munitions. Conduct engineering test to verify MEMS component alternatives. Study improvements on M734A1/M783 mortar fuze delay primer. Block Upgrades: Determined that Proximity Sensor can physically fit in existing 30mm HEDP M789 round and continued fabrication of fuze components. Integrate new Proximity Sensor components and conduct engineering test to prove-out design. Analyze proximity fuze electronic			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 862 / *Indirect Fire And Fuze Technology*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
upgrades for High Explosive and White Phosphorus mortar rounds. Test packing clip improvement on full range mortar training rounds. ***FY 2013 Accomplishments:*** Indirect Fire & Fuze ARDEC Support. ***FY 2014 Plans:*** .Indirect Fire & Fuze ARDEC Support. ***FY 2015 Plans:*** Indirect Fire & Fuze ARDEC Support.			
Title: Indirect fire & Fuze PM CAS Support	-	6.662	6.089
Articles:	-	-	-
Description: Indirect Fire: Activities include study, analyze and support of enhanced lethality technology to improve effectiveness and eliminate sole source High Fragmentation -1 steel in indirect fires. Activities include examination of alternative technologies, materials and processes. Study, analyze and support of candidate nonlethal, nontoxic multispectral smoke technologies to eliminate hazardous smoke in indirect fires screening missions. Activities include examination of alternative technologies, materials and processes. Study, retain and validate the effectiveness of M821 mortar cartridge lethality due to use of Insensitive Munitions in lieu of comp B HE fill. Safety improvements to conventional munitions. Joint NATO/Allied Cannon Munitions Interchangeability analysis and support of battlefield interchangeability/compatibility of munitions and associated enabling technologies between 52 and 39 caliber 155mm guns. Activities include ballistic testing including firing tables, safety, reliability and performance. ***FY 2014 Plans:*** .Indirect fire & Fuze PM CAS Support ***FY 2015 Plans:*** .Indirect fire & Fuze PM CAS Support			
Title: 155mm Extended Range Base Bleed Sys Analysis and Support	3.004	-	-
Articles:	-	-	-
Description: Indirect Fire: Complete development and validation of engineering baseline of the currently fielded base bleed system, improvements to the base bleed grain formulation and boat tail shape, optimization of the igniter system with the improved grain formulation and the test and validation of completely modern, cost effective and producible base bleed system to			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** 862 / *Indirect Fire And Fuze Technology*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
validate improvements in reliability, accuracy and overall performance and corresponding integration planning to transition these improvements into 155mm programs of record. ***FY 2013 Accomplishments:*** 155mm Extended Range Base Bleed System Analysis and Support			
Accomplishments/Planned Programs Subtotals	3.959	8.620	7.898

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	Project (Number/Name) F21 / *Direct Fire Technology and NATO Ammo Eval*	

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
F21: *Direct Fire Technology and NATO Ammo Eval*	-	10.449	7.028	6.867	-	6.867	6.204	5.407	4.336	3.802	-	-
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 funding will be used to support direct fire ammunition from small caliber ammunition, 40mm grenade, medium caliber cannon ammunition and large caliber ammunition enhancements to lethality, effectiveness, survivability, accuracy and general product improvements. In addition, this program assures complete interchangeability of direct fire ammunition and weapons among all the NATO countries with all of the associated logistic, strategic and tactical advantages of the alliance. Project involves development and testing compliance of NATO standardization agreements (STANAGS) and staffing of the North American Regional Test Center (NARTC).

FY 2015 funds will support small caliber propellant optimization to improve propellant temperature stability, reduce muzzle flash signature and fouling. In addition, lightweight cartridge cases composed of steel, polymer and aluminum will continue to be investigated. A more lethal and safer design for 40mm grenades will be built and tested. An improved 30mm training round for the Apache helicopter will allow pilots to see where the rounds strike. Warhead improvements for the 30mm Apache ammunition are also under development. A number of studies on potential improvements for training ammunition and better primers will be conducted. A study to improve the safety of the fuzes used in the 120mm Abrams tank cannon will also be initiated.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Lead Free Ammo - Propellant Optimization	2.083	0.750	0.780
Articles:	-	-	-
Description: Develop optimized spherical propellant for reduced muzzle signature, fouling and chamber pressure. Cartridges containing alternate flash suppressants and deterrents will be manufactured and tested to determine optimum propellant composition.			
FY 2013 Accomplishments: Initiate 5.56mm optimization study and testing of temperature stability technology to optimize small caliber propellants.			
FY 2014 Plans: Evaluate improvements that reduce hazardous materials in manufacturing, small caliber propellant optimization studies and testing of temperature stability technology.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** F21 / *Direct Fire Technology and NATO Ammo Eval*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Optimize and evaluate improvements to flash suppression and barrel wear technology for small caliber propellants.			
Title: Low Observable Traced Projectiles	-	1.768	-
Articles:	-	-	-
Description: Tracers have a number of drawbacks; largely they give away the position of the shooter during firing. Advancement in technology has improved tracer technology which potentially eliminates, mitigates shortfalls of current tracers and improves safety and soldier survivability. This program has been funded since FY 2011. ***FY 2014 Plans:*** Continue engineering prototype manufacturing, development, and testing. Downselect to most promising candidates conducting engineering studies to improve manufacturing readiness.			
Title: Lightweight Ammunition	1.083	0.275	1.200
Articles:	-	-	-
Description: Investigate alternate cartridge case materials for cost and weight savings over conventional brass cartridge cases. ***FY 2013 Accomplishments:*** Down select alternative lightweight cartridge case technology. ***FY 2014 Plans:*** Continue to develop down selected technology candidates. Work jointly with other services towards common solutions. ***FY 2015 Plans:*** Perform government testing and continued improvement of candidate designs.			
Title: New Ammo Design Qualification & NATO Mission Support	0.483	0.400	0.200
Articles:	-	-	-
Description: This program assures complete interchangeability of small caliber and automated cannon-caliber ammunition and weapons among all NATO countries with all of the associated logistic, strategic and tactical advantages. ***FY 2013 Accomplishments:*** Support NARTC Test operations. ***FY 2014 Plans:*** Support NARTC Test operations ***FY 2015 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** F21 / *Direct Fire Technology and NATO Ammo Eval*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Support NARTC Test operations			
Title: M433 Warhead Improvement ***Articles:*** ***Description:*** 40mm: Improve lethality (fragmentation) of the M433 grenade. ***FY 2013 Accomplishments:*** Developmental test and validation of increased fragmentation warhead design and integrated ballistic testing. ***FY 2014 Plans:*** Initiate qualification of improved M433 cartridge. ***FY 2015 Plans:*** Complete component and integration subsystem and system testing. Three hundred cartridges will be built and tested to complete qualifications of the cartridge.	2.775 -	0.600 -	2.445 -
Title: Target Practice Spotter Technology Insertion ***Articles:*** ***Description:*** Training Cartridge with impact initiated spotting charge. Goal is visible signature upon impact under all conditions. ***FY 2013 Accomplishments:*** Qualification testing of preliminary designs. ***FY 2014 Plans:*** Improve the design to facilitate high volume production and optimize design. ***FY 2015 Plans:*** Build qualification sample and initiate testing for final qualification in FY 2016.	2.074 -	1.250 -	0.850 -
Title: Improved M789 Lethality, Warhead fragmentation improvement ***Articles:*** ***Description:*** Improve M789 warhead fragmentation for lethality by utilizing fragmentation sleeves, scoring or other technologies within the warhead to promote more efficient fragmentation. ***FY 2013 Accomplishments:*** Integration of improved shear liner, increase in manufacturing readiness, and conduct integrated ballistic test. ***FY 2014 Plans:***	1.083 -	0.500 -	0.500 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** F21 / *Direct Fire Technology and NATO Ammo Eval*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Incorporate the best design into the M789 warhead and perform testing to support an air worthiness release. Provide warheads with shear liners for a combined lethality demonstration with the Proximity sensor. ***FY 2015 Plans:*** Developmental and demonstration testing of the M789 warhead, TDP development and fragmentation liner integration into shaped charge warhead.			
Title: DBX-1 Lead free replacement for Lead Azide	0.684	-	0.050
Articles:	-	-	-
Description: Integrate environmentally friendly lead free primary explosives into M789. Demonstration in this form factor will enable transition to other munitions of larger size. ***FY 2013 Accomplishments:*** Integrate environmentally friendly lead free primary explosives into M789. ***FY 2015 Plans:*** Iniate lead free testing into M789.			
Title: Improved .300 caliber sniper ammunition	0.184	0.500	-
Articles:	-	-	-
Description: Improve .300 caliber sniper ammunition to provide increased capabilities. ***FY 2013 Accomplishments:*** Conduct market research, develop concepts and down select. ***FY 2014 Plans:*** Refine and evaluate cartridge design.			
Title: 120mm Fuze Safety Improvement	-	0.400	-
Articles:	-	-	-
Description: Initiate efforts to incorparate a second independant safety into the fuze for current 120mm high explosive ammunition. ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** F21 / *Direct Fire Technology and NATO Ammo Eval*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Focus will be on modifying fuze to meet current safety standards. Initiate design efforts to incorporate a pressure switch into the current fuze for the M830 and M830A1. Additional efforts will also be required to address obsolescence issues associated with the fuze.			
Title: Extruded Propellant	-	0.510	0.273
Articles:	-	-	-
Description: Develop and demonstrate a government owned alternate propellant for M855A1 using existing extruded propellant technology. ***FY 2014 Plans:*** Model interior ballistics and develop new formulations for 5.56mm, focusing on improved performance through lower variability, erosivity, and increased range via higher velocity at acceptable pressures. Develop pilot scale manufacturing process, produce samples, and demonstrate performance in subscale development testing. ***FY 2015 Plans:*** Extruded Propellant will be closing out Phase I by concluding designs, propellant iterations, initial testing and culminating in a Preliminary Design Review (PDR). At the conclusion of PDR, the program will move into Phase II/III which consists of larger scale testing, production testing, and working actions necessary for TDP finalization and ECP draft.			
Title: Small Caliber Ammunition Training Range Impact Reduction Engineering Study	-	0.075	0.050
Articles:	-	-	-
Description: Perform an engineering study on the feasibility of reducing the surface danger zone of small caliber training ammunition while maintaining a ballistic match to the combat ammunition out to maximum effective range of the combat ammunition. The results of the study will assist in establishing the baseline requirements for future training ammunition. ***FY 2014 Plans:*** Conduct literature search, develop and run models and simulations, perform material analysis, conduct market survey, prepare recommended requirements and prepare program proposals. ***FY 2015 Plans:*** Test samples of potential candidates.			
Title: 40mm Pyrotechnics Cartridges	-	-	0.400
Description: Improve reliability and hang time. ***FY 2015 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** F21 / *Direct Fire Technology and NATO Ammo Eval*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Initial phase of multiyear effort starting with reliability and hang time improvements.			
Title: Close Combat Mission Capability Kit (CCMCK) ***Description:*** CCMCK is a user installed weapons modification system, which allows the Soldier to employ weapons at a short range for force-on-force training using low velocity marking ammunition while precluding the weapon from firing standard service ammunition. The system provides normal environmental/weapon employment cues and immediate target feedback through force-on-force, interactive live fire scenario tasks, and mission execution. ***FY 2015 Plans:*** Engineering study to analyze unmet user requirements.	-	-	0.010
Title: Metastable Intermolecular Composite (MIC) Primer Lead free primer ***Description:*** Integrate environmental friendly lead free primary explosives within the primer of the M789 and remove lead Styphnate. ***FY 2015 Plans:*** Explosive material qualification and primer functionality testing to ensure cartridge and propulsion functionality are ready for integration.	-	-	0.109
Accomplishments/Planned Programs Subtotals	10.449	7.028	6.867

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605805A / *Munitions Standardization, Effectiveness and Safety*				Project (Number/Name) F24 / *Conventional Munitions Demil*			
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**
F24: *Conventional Munitions Demil*	-	14.400	9.783	8.764	-	8.764	10.522	12.952	14.110	13.617	-	-
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 Conventional Munitions Demilitarization technology program supports the Single Manager for Conventional Ammunition (SMCA) responsibility per Department of Defense Instruction (DoDI) 5160.68 to plan, program, budget and fund a Joint Service research and development (R&D) program for developing capability and capacity, technology and facilities to support the SMCA mission to demil and dispose of conventional ammunition stored in the SMCA Resource, Recovery and Disposition Account (B5A) for all the Military Services. The program goals include SMCA efforts to increase efficiencies and effectiveness to reduce the demil stockpile; reduce processing costs including packaging, handling and crating; and increase capacity through improved demil capabilities and processes. Project F24 includes activities: (1) to support a requirements process to focus investments, assess capabilities, analyze alternatives, and recommend and implement R&D projects; (2) to sustain product and process improvement and support for existing capabilities; (3) to develop or improve demil methods and processes related to advance the primary demilitarization core thrust areas of destruction, disassembly, removal, resource recovery and recycling, and waste stream treatment; (4) to ensure safe and environmentally acceptable demil operations; (5) to transition or transfer activities of technologies/projects from the techbase centers or to United States Army depots or plants performing demil; and (6) to mitigate risk and close-out project activities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Advanced Destruction	6.499	3.430	1.314
Articles:	-	-	-
Description: This effort focuses on destruction of munitions.			
FY 2013 Accomplishments: Continued the ammonium Perchlorate rocket motor destruction at Letterkenny Munitions Center with rocket motor segmenting design and complete the final facility design. Completed plasma ordnance disposal system layaway. Initiated study on universal closed disposal (UCD) for shaped charges. Completed the preliminary design of cryofracture adaptation to demil of Rockeye munitions. Completed design basis for Rockeye demil at McAlester Army Ammunition Plant (MCAAP). Initiated closure of the mobile plasma treatment system. Continued evaluation of a decineration process for cartridge actuated devices/ propellant actuated devices(CADS/PADS). Initiate the upgrade of the Munitions Cryofracture Demil Facility at MCAAP.			
FY 2014 Plans: Continue the ammonium Perchlorate rocket motor destruction at Letterkenny Munitions Center with long lead item procurement. Install proveout and complete evaluation of a decineration process for CADS/PADS. Design and fabricate subsystems for the			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** F24 / *Conventional Munitions Demil*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
upgrade of the Munitions Cryofracture Demilitarization Facility (MCDF) at MCAAP. Closeout the Mobile Plasma Treatment System (MPTS) project at Crane Army Ammunition Activity (CAAA). Initiate testing of munitions at the UCD facility. Complete evaluation of decineration process at Tooele Army Depot (TEAD). ***FY 2015 Plans:*** Conduct phase I integration testing for ammonium Perchlorate rocket motor destruction and complete rocket motor segmenting. Evaluate results of universal closed disposal testing. Initiate study of double base grain rocket motor demil facility. Integrate MCDF hardware and demonstrate operation at MCAAP.			
Title: Resource Recovery and Recycling (R3) ***Articles:*** ***Description:*** This effort focuses on enhancing existing methods of munitions R3. ***FY 2013 Accomplishments:*** Initiate magnesium recovery layaway. Fabricate, install and test upgrades to high pressure water wash out line at Hawthorne Army Depot (HWAD). Complete test, fabrication and facilitization for Improved Conventional Munitions Recycle, Recovery and Reuse (ICM R3) line induction heating. ***FY 2014 Plans:*** Complete integrated demonstration and validation of the ICM R3. Conduct the ICM R3 LRIP. Conduct the High Pressure Water Washout (HPWWO) Phase II equipment purchase and installation and conduct Low Rate Initial Production (LRIP). ***FY 2015 Plans:*** Complete installation and proveout of high pressure water washout line at HWAD. Modify filter press for efficiency at the HPWWO. Finalize ICM R3 configuration and transfer equipment to production.	2.943 -	1.094 -	0.459 -
Title: Advanced Removal ***Articles:*** ***Description:*** This effort develops technology to remove propellant and energetics. ***FY 2013 Accomplishments:*** Fabricate components for Red Phosphorous (RP) Phase II demil line. Continue Insensitive Munitions Explosives-101 (IMX-101) Autoclave Improvement project; finish final report and evaluate changes on Comp B loaded projectiles. ***FY 2014 Plans:***	2.164 -	0.788 -	0.981 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** F24 / *Conventional Munitions Demil*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Design download equipment for RP Phase II line. Complete IMX-101 Autoclave Process Upgrade project. ***FY 2015 Plans:*** Fabricate components for RP demil line. Integrate RP demil line into Phosphoric acid recovery plant at CAAA. Initiate IM Bomb Body recovery line. Implement process changes from IMX-101 autoclave project to the MCAAP autoclave process.			
Title: Advanced Waste Stream Treatment	0.698	1.422	2.200
Articles:	-	-	-
Description: This effort focuses on handling waste streams from munitions items. ***FY 2013 Accomplishments:*** Initiate study for Rotary Kiln Productivity Improvement (RKPI). Continue dual use evaluation of energetics wastes as a feed stream for fuel cells. ***FY 2014 Plans:*** Complete RKPI study and conduct downselect for hardware upgrades. ***FY 2015 Plans:*** Initiate procurement for long lead-time items. Award contract for upgraded Pollution Abatement System for Rotary Kilns from Productivity Improvement program. Apply process efficiency changes to the environment permitting process for the Rotary Kiln Productivity Improvement Project.			
Title: Advanced Munitions Disassembly	2.096	3.049	3.810
Articles:	-	-	-
Description: Funding is provided for the following efforts: ***FY 2013 Accomplishments:*** Continue prototype detail design and complete subscale testing of Bomb, Live Unit-97 (BLU-97) disassembly process at HWAD. Initiated wash waterline improvements and completed Demilitarization by Induction Heating Meltout System (DIHMES) demonstration and validation. Closeout acid digestion project. ***FY 2014 Plans:*** Conduct Analysis of Alternatives for Family of Scatterable Mines (FASCAM) Demil at CAAA. Initiate project for FASCAM processing facility. Initiate the application of Lean Automation principles in the design and layout of the BLU-97 project at HWAD. Set up process to detank Liquid Rocket-62 (LR-62) Bullpup motors. ***FY 2015 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605805A / *Munitions Standardization, Effectiveness and Safety*	**Project (Number/Name)** F24 / *Conventional Munitions Demil*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continue support of FASCAM demil. Continue fabrication and installation of BLU-97 disassembly process. Detank one LR-62 Bullpup motor. Identify a process to dispose of Inhibited Red Fuming Nitric Acid (IRFNA) and Mass Air Flow(MAF) fuel components for Bullpup rockets.			
Accomplishments/Planned Programs Subtotals	14.400	9.783	8.764

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605857A *I Environmental Quality Technology Mgmt 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**
Total Program Element	-	4.276	5.191	2.612	-	2.612	4.093	2.820	4.707	2.921	-	-
031: *Environmentally Sustainable Acquisition/Logistics*	-	3.245	4.277	2.340	-	2.340	3.746	2.432	4.190	2.529	-	-
06H: *Unexploded Ordnance Clearance Technology Support*	-	1.031	0.914	-	-	-	-	-	-	-	-	-
06I: *POLLUTION PREVENTION TECH SUPPORT*	-	-	-	0.272	-	0.272	0.347	0.388	0.517	0.392	-	-

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

Note

FY15 reduction attributed to realignment to other higher priority Army programs.

A. Mission Description and Budget Item Justification

This program resources environmental quality technology (EQT) related management support functions including support of research, development, test and evaluation required for EQT technical integration efforts at demonstration/validation test sites, technical information and activities, test facilities and general test instrumentation, and EQT requirement assessments. Funds required to support the management of technology transfer associated with technology demonstrated and validated as part of Army EQT projects are included in this program element. In addition, support to the Army weapon system acquisition community to address generic pollution prevention related requirements are included under the Environmentally Sustainable Acquisition/Logistics Program.

The Environmentally Sustainable Acquisition/Logistics project includes program management for developing acquisition strategies that both achieve system key performance parameters and sustain the environment without permanent and unacceptable change in the natural environment or human health from system concept refinement through disposal. It includes systematic consideration of environmental impacts, energy use, natural resources, installation impacts, economics, and quality of life. It provides support to the system acquisition community, e.g., program and project managers, to integrate environmental quality analyses into the system acquisition process. The goal is to resolve environmental quality issues related to weapon systems that are identified during design, development, testing, operation, or support to reduce Army environmental liabilities and total ownership costs and includes efforts to eliminate the use of hazardous and ozone-depleting materials from weapon systems and facilities and to ensure the availability of Halon 1301 to support weapon system fire suppression requirements.

The Unexploded Ordnance Detection and Clearance project, beginning in FY 2004, is being overseen by the Army. The project had been overseen by Office of the Secretary of Defense in prior years. This project funds the Unexploded Ordnance Center of Excellence (UXOCOE) to provide for coordination of unexploded ordnance (UXO) technologies across the Department of Defense.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army	Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605857A / *Environmental Quality Technology Mgmt Support*

The Pollution Prevention Tech Support project funds the management support costs to execute the Toxic Metals Reduction and Airborne Lead Reduction environmental quality technology programs.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	4.601	5.193	4.648	-	4.648
Current President's Budget	4.276	5.191	2.612	-	2.612
Total Adjustments	-0.325	-0.002	-2.036	-	-2.036
• Congressional General Reductions	-0.005	-0.002			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.131	-			
• Adjustments to Budget Years	-	-	-2.036	-	-2.036
• Other Adjustments	-0.189	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605857A / *Environmental Quality Technology Mgmt Support*	Project (Number/Name) 031 / *Environmentally Sustainable Acquisition/Logistics*	

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
031: *Environmentally Sustainable Acquisition/Logistics*	-	3.245	4.277	2.340	-	2.340	3.746	2.432	4.190	2.529	-	-
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 Environmentally Sustainable Acquisition/Logistics (ESAL) project provides support to the system acquisition community to integrate environmental quality (EQ) issues and concerns into the life cycle system acquisition process. To a much lesser extent, safety, occupational health (OH) and energy efficiency are also addressed. The focus of ESAL is on improving readiness, improving acquisition processes, reducing supportability burden, and minimizing total ownership cost. The Assistant Secretary of the Army for Installations, Energy and Environment [ASA(IE&E)] has defined the functions of the ESAL project in coordination with the Army Acquisition Executive and the Assistant Secretary of the Army (Acquisition, Logistics, and Technology). This project provides direct support to the Army acquisition community to pursue environmental sustainability and comply with legal statutes, policies and regulations during the life cycle of Army materiel. ESAL helps the Army achieve compliance with its weapon systems, industrial base, field and deployed activities directed by international treaties, Federal statutes, Executive Orders, Department of Defense (DoD) and Army policies and regulations.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Environmental Quality (EQ) Support	1.539	1.215	1.110
Articles:	-	-	-
Description: Provide EQ Support to Acquisition Programs			
FY 2013 Accomplishments: Provided support to Program Executive Officers and Program Managers (PEOs/PMs) to integrate EQ considerations and, to a much lesser extent, some safety and OH considerations into systems engineering activities. This included fulfillment of National Environmental Policy Act requirements, definition of EQ technology needs to meet operational requirements, participation in development of test plans and protocols, oversight of testing efforts, analysis of technical data to support implementation decisions, participation in technical and cost risk assessment activities, and assessment and revision of contractual and operational requirements for successful technology integration, operation and support. Analyzed impending legal statutes impacting production, operation and support of weapon systems. Supported achievement of the Executive Order 13514 energy and greenhouse gas emission reduction goals, Pollution Prevention goals, and Army industrial base facility goals; Executive Order 13423 and associated Army goals for Toxic and Hazardous Chemical Reduction; and the DoD policy, Defense Federal Acquisition Regulation Supplement (DFARS) clause and Army policy restricting the use of hexavalent chromium. Assessed weapon system readiness impacts (e.g., production levels, training, operational tempo and maintenance activities) resulting from EQ issues			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605857A / *Environmental Quality Technology Mgmt Support*	**Project (Number/Name)** 031 / *Environmentally Sustainable Acquisition/Logistics*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
affecting industrial base and garrisons. Provided Army acquisition community representation in Office of the Secretary of Defense (OSD) and Department of the Army (DA) committees addressing environmental legislation and rulemaking. ***FY 2014 Plans:*** Provide support to PEOs/PMs to integrate EQ considerations into systems engineering activities. This includes fulfillment of National Environmental Policy Act requirements, definition of EQ technology needs to meet operational requirements, analysis of technical data to support implementation decisions, participation in technical and cost risk assessment activities, and assessment and revision of contractual and operational requirements for successful technology integration, operation and support. Analyze impending legal statutes impacting production, operation and support of weapon systems. Assess weapon system readiness impacts (e.g., production levels, training, operational tempo and maintenance activities) resulting from EQ issues affecting industrial base and garrisons. Provide Army acquisition community representation in select OSD and DA committees addressing environmental legislation and rulemaking. ***FY 2015 Plans:*** Will provide support to PEOs/PMs to integrate EQ considerations into systems engineering activities. This will include fulfillment of National Environmental Policy Act requirements, definition of EQ technology needs to meet operational requirements, analysis of technical data to support implementation decisions, participation in technical and cost risk assessment activities, and assessment and revision of contractual and operational requirements for successful technology integration, operation and support. Will analyze impending legal statutes impacting production, operation and support of weapon systems. Will assess weapon system readiness impacts (e.g., production levels, training, operational tempo and maintenance activities) resulting from EQ issues affecting industrial base and garrisons. Will provide Army acquisition community representation in select OSD and DA committees addressing environmental legislation and rulemaking.			
Title: Environmental Quality (EQ) Technology Management	1.158	1.028	0.835
Articles:	-	-	-
Description: Provide management support for Army EQ technology efforts. ***FY 2013 Accomplishments:*** Provided system acquisition support to the Army's Environmental Technology Technical Council (ETTC) and coordination of EQ-related systems' needs for expanded research, development, test and evaluation (RDT&E) efforts. Managed and oversaw technology integration efforts by Army Life Cycle Management Commands and PEO/PM environmental integrated process teams for weapon systems in all stages of design, procurement and operations/support. Coordinated RDT&E Budget Activity -1 (BA-1) and BA-2 requirements among members of the Pollution Prevention Technology Team, coordinated RDT&E BA-3 and BA-4 technology evaluations and operational requirements in support of weapon system platform integration, managed and oversaw test plan development, oversaw testing activities, and analyzed test results to support weapon systems engineering			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605857A / *Environmental Quality Technology Mgmt Support*	**Project (Number/Name)** 031 / *Environmentally Sustainable Acquisition/Logistics*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
decision making. Participated in performance and cost/risk assessments in support of ASA(IE&E) program objectives. Managed development and execution of plans for the following pollution prevention technology areas: reformulation of materials used in ammunition and pyrotechnics to remove hazardous constituents; Zero Footprint Camp to reduce the fuel and water logistics burden in Overseas Contingency Operations; Reductions in Toxic Metals Used in Surface Finishing on Army Weapon Systems; Alternative Battlefield Fuels; and Airborne Lead Reduction in Army Weapon Systems. ***FY 2014 Plans:*** Provide system acquisition support to the Army's ETTC and coordination of EQ-related systems' needs for expanded RDT&E efforts. Manage and oversee technology integration efforts by Army Life Cycle Management Commands for weapon systems in all stages of design, procurement and operations/support. Coordinate RDT&E BA-2 requirements among members of the Pollution Prevention Technology Team, coordinate RDT&E BA-3 and BA-4 technology evaluations and operational requirements in support of weapon system platform integration, manage and oversee test plan development, oversee testing activities, and analyze test results to support weapon systems engineering decision making. Manage development and execution of plans for the following pollution prevention technology areas: reformulation of materials used in ammunition and pyrotechnics to remove hazardous constituents; Zero Footprint Camp to reduce the fuel and water logistics burden in Overseas Contingency Operations; Reductions in Toxic Metals Used in Surface Finishing on Army Weapon Systems; and Airborne Lead Reduction in Army Weapon Systems. ***FY 2015 Plans:*** Will provide system acquisition support to the Army's EQ technology program and coordination of EQ-related systems' needs for expanded RDT&E efforts. Will manage and oversee technology integration efforts by Army Life Cycle Management Commands for weapon systems in all stages of design, procurement and operations/support. Will coordinate RDT&E requirements among members of the Pollution Prevention Technology Team, coordinate technology evaluations and operational requirements in support of weapon system platform integration, manage and oversee test plan development, oversee testing activities, and analyze test results to support weapon systems engineering decision making.			
Title: Ozone Depleting Substance Management ***Articles:*** ***Description:*** Oversee Army efforts to manage the use/elimination of ozone depleting substances on Army weapon systems. ***FY 2013 Accomplishments:*** Oversaw Army efforts to manage the use/elimination of ozone-depleting substances, greenhouse gases, and hazardous and toxic materials on Army weapon systems. Managed and oversaw the Army's reserve of ozone-depleting substances that contains the Army's strategic supplies of Halon used for explosion and fire suppression systems and R-22 used in fielded environmental control units. Coordinated with PEOs/PMs to affect system replacement and retrofit to eliminate ozone depleting substances while	0.548 -	0.337 -	0.395 -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605857A / *Environmental Quality Technology Mgmt Support*	**Project (Number/Name)** 031 / *Environmentally Sustainable Acquisition/Logistics*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
minimizing greenhouse gases, obtained approval to require use of Halon in new contracts, and assisted garrison commanders to assure recovery and deposit of excess Halon and R-22 into the reserve. Participated in Federal government and multi-national forums discussing use and replacement of ozone depleting substances and greenhouse gases, justifying mission critical applications, and addressing international importation and use regulations/restrictions. ***FY 2014 Plans:*** Oversee Army efforts to manage the use/elimination of ozone-depleting substances on Army weapon systems. Monitor the Army's reserve of ozone-depleting substances that contains the Army's strategic supplies of Halon used for explosion and fire suppression systems and R-22 used in fielded environmental control units. Coordinate with PEOs/PMs to affect system replacement and retrofit to eliminate ozone depleting substances while minimizing greenhouse gases and will obtain approval to require use of Halon in new contracts. ***FY 2015 Plans:*** Will oversee Army efforts to manage the use/elimination of ozone-depleting substances on Army weapon systems. Will monitor the Army's reserve of ozone-depleting substances that contains the Army's strategic supplies of Halon used for explosion and fire suppression systems and R-22 used in fielded environmental control units. Will coordinate with PEOs/PMs to affect system replacement and retrofit to eliminate ozone depleting substances while minimizing greenhouse gases and will obtain approval to require use of Halon in new contracts.			
Title: Headquarters Army Environmental System (HQAES) ***Articles:*** ***Description:*** Headquarters Army Environmental System (HQAES) support. ***FY 2014 Plans:*** Support Headquarters Army Environmental System (HQAES) modifications recommended by Configuration Control Management Board in order to support network security worthiness.	- -	1.697 -	- -
Accomplishments/Planned Programs Subtotals	3.245	4.277	2.340

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605857A / *Environmental Quality Technology Mgmt Support*	**Project (Number/Name)** 031 / *Environmentally Sustainable Acquisition/Logistics*

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605857A / *Environmental Quality Technology Mgmt Support*	Project (Number/Name) 06H / *Unexploded Ordnance Clearance Technology 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
06H: *Unexploded Ordnance Clearance Technology Support*	-	1.031	0.914	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

The funding for Unexploded Ordnance Clearance Technology Support will be transferred to OMA starting FY15.

A. Mission Description and Budget Item Justification

This effort was devolved to the Army from the office of the Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)). This effort funds the Unexploded Ordnance Center of Excellence (UXOCOE), which provides the day-to-day management, coordination, and information clearinghouse functions, and serves as the Department of Defense's (DoD) center for coordinating Unexploded Ordnance (UXO) Research, Development, Test and Evaluation (RDT&E) requirements and programs across DoD; develops and promotes standards for testing, modeling, and evaluation; maintains information on technologies for UXO detection and clearance; publishes an annual report summarizing the activities and accomplishments of the UXOCOE in order to improve the effectiveness and economy of UXO detection and clearance RDT&E efforts throughout DoD; and gathers and maintains a database for the results of these efforts. The Army manages, oversees, and coordinates this effort on behalf of the office of the USD(AT&L).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Coordinate/collect/analyze UXO RDT&E information via conferences, seminars, and workshops.	0.389	0.503	-
Articles:	-	-	-
Description: Coordinate/collecte/analyze UXO RDT&E information via conferences, seminars, and workshops. ***FY 2013 Accomplishments:*** Coordinated/collected/analyzed UXO RDT&E information via conferences, seminars, and workshops. ***FY 2014 Plans:*** Catalogue and conduct analysis of explosive hazards requirements and technologies across the detection and neutralization tenets to identify explosive hazards technology capability gaps and leveraging opportunities found across DoD and other research and engineering activities.			
Title: Generate an annual UXO Clearance Report focused on UXO RDT&E efforts for countermine, explosive ordnance disposal, UXO remediation, humanitarian demining, and active range clearance.	0.237	0.183	-
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605857A / *Environmental Quality Technology Mgmt Support*	**Project (Number/Name)** 06H / *Unexploded Ordnance Clearance Technology Support*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Generate an annual UXO Clearance Report focused on UXO RDT&E efforts for countermine, explosive ordnance disposal, UXO remediation, humanitarian demining, and active range clearance. ***FY 2013 Accomplishments:*** Generated an annual UXO Clearance Report focused on UXO RDT&E efforts for countermine, explosive ordnance disposal, UXO remediation, humanitarian demining, and active range clearance. ***FY 2014 Plans:*** Generate an annual UXO Clearance Report focused on UXO RDT&E efforts for countermine, explosive ordnance disposal, UXO remediation, humanitarian demining, and active range clearance.			
Title: Maintain and update the UXO clearance/detection databases and computer web site and analyze data from and programs in UXO RDT&E for potential solutions to UXO related needs. ***Articles:*** ***Description:*** Maintain and update the UXO clearance/detection databases and computer web site and analyze data from and programs in UXO RDT&E for potential solutions to UXO related needs. ***FY 2013 Accomplishments:*** Maintained and updated the UXO clearance/detection databases and computer web site and analyzed data from and programs in UXO RDT&E for potential solutions to UXO related needs. ***FY 2014 Plans:*** Maintain and update the UXO clearance/detection databases and computer web site and analyze data from and programs in UXO RDT&E for potential solutions to UXO related needs.	0.329 -	0.174 -	- -
Title: Provide oversight of UXOCOE's Ft. A. P. Hill test site which is used for standardized scientific experiments to help gather data on and model the performance of potential UXO sensors. ***Articles:*** ***Description:*** Provide oversight of UXOCOE's Ft. A. P. Hill test site which is used for standardized scientific experiments to help gather data on and model the performance of potential UXO sensors. Data are needed for the acquisition of UXO sensor performance data versus a full system evaluation. Focus is on the sensor itself, not on full-scale operational system capability. Full-scale development would occur during engineering and manufacturing development and be aimed at meeting validated requirements prior to full-rate production. ***FY 2013 Accomplishments:***	0.076 -	- -	- -

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605857A / *Environmental Quality Technology Mgmt Support*	**Project (Number/Name)** 06H / *Unexploded Ordnance Clearance Technology Support*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Provided oversight of UXOCOE's Ft. A. P. Hill test site which is used for standardized scientific experiments to help gather data on and model the performance of potential UXO sensors. Data was needed for the acquisition of UXO sensor performance data versus a full system evaluation. Focus was on the sensor itself, not on full-scale operational system capability. Full-scale development would occur during engineering and manufacturing development and be aimed at meeting validated requirements prior to full-rate production.			
Title: Maintain awareness of UXO issues	-	0.054	-
Articles:	-	-	-
Description: Conduct and attend requirements and technology conferences, seminars and workshops and meetings to coordinate and improve the awareness of explosive hazards technology research and engineering initiatives being developed. ***FY 2014 Plans:*** Plan, organize and conduct an annual explosive hazards technology coordination meeting bringing together the major Military Service and OSD technologists and program managers. Identify and participate in DoD, industry and academia sponsored meetings and symposiums. Update on a quarterly basis UXOCOE information products with information collected at various meetings and conferences. Identify and disseminate technology leveraging opportunities within explosive hazards community.			
Accomplishments/Planned Programs Subtotals	1.031	0.914	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605857A / *Environmental Quality Technology Mgmt Support*	Project (Number/Name) 06I / *POLLUTION PREVENTION TECH 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
06I: *POLLUTION PREVENTION TECH SUPPORT*	-	-	-	0.272	-	0.272	0.347	0.388	0.517	0.392	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

FY 2015: Increase in Project 06I is to fund the management support for the demonstration and validation of two Army Environmental Quality Technology programs.

A. Mission Description and Budget Item Justification

This project provides RDTE Management Support for the demonstration and validation of weapon system pollution prevention technologies within the Army's Environmental Quality Technology program. The project increases operational sustainment and warfighter training capabilities by reducing soldier and worker health risks and environmental impacts that would otherwise result in restoration needs and compliance enforcement actions against installations while simultaneously increasing performance and standardization across the Army. This project provides for management of RDTE activities conducted under project 0603779A, Environmental Quality Technology Dem/Val (E21). The project expedites technology transition from the laboratory to operational use by supporting the demonstration of new materials and processes to fulfill the performance requirements outlined in Material Specifications, Depot Maintenance Work Requirements, Technical Manuals, Drawings and other technical data.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Title: Management of pollution prevention technology programs ***Description:*** Manage and oversee the demonstration/validation of weapon system pollution prevention technologies within the Army's Environmental Quality Technology Program. ***FY 2015 Plans:*** Will manage and oversee the demonstration/validation of two pollution prevention technology efforts: Toxic Metal Reduction in Surface Finishing of Army Weapon Systems, and Airborne Lead Reduction from Army Weapon Systems	-	-	0.272
Accomplishments/Planned Programs Subtotals	-	-	0.272

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 / 6	**R-1 Program Element (Number/Name)** PE 0605857A / *Environmental Quality Technology Mgmt Support*	**Project (Number/Name)** 06I / *POLLUTION PREVENTION TECH SUPPORT*

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army											Date: March 2014	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605898A / *Management HQ - R&D*							
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	-	16.844	54.145	49.592	-	49.592	51.827	52.973	53.318	48.789	-	-
M65: *Army Test and Evaluation Command*	-	16.844	54.145	49.592	-	49.592	51.827	52.973	53.318	48.789	-	-

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

A. Mission Description and Budget Item Justification

This project provides funding for the salaries and related personnel benefits for the authorized civilian personnel positions that provide for the management functions and the technical direction of the U.S. Army Test and Evaluation Command (ATEC) mission located at Aberdeen Proving Ground, Maryland. ATEC plans, conducts and integrates developmental testing, independent operational testing, independent evaluations, assessments and experiments to provide essential information to Soldiers and acquisition decision makers supporting the American Warfighter.

This project includes staff/management functions of resource management, safety, security, environmental, strategic planning and information/technology support for command-wide databases in support of the developmental, evaluation and operational test mission with technical direction to the Army Evaluation Center (AEC), Aberdeen Proving Ground, Maryland, to the Operational Test Command (OTC), Fort Hood, Texas and to the seven Major Range and Test Facility Base (MRTFBs) and one non-MRTFB test range: Aberdeen Test Center (ATC), Aberdeen Proving Ground, Maryland; Dugway Proving Ground (DPG), Utah; Electronic Proving Ground (EPG), Fort Huachuca, Arizona; White Sands Missile Range (WSMR), New Mexico; Yuma Proving Ground (YPG), Arizona; Cold Regions Test Center (CRTC), Fort Greely, Alaska; and Tropic Regions Test Center (TRTC) at various locations, as well as for Redstone Test Center (RTC) Redstone Arsenal, Alabama. This is the operating budget for ATEC Headquarters, which provides technical direction for the annual execution of over 3,000 developmental tests; more than 70 operational events; and more than 1,000 documents supporting acquisition programs. ATEC has an authorized workforce of more than 9,549 workyears, and a $1.8 billion program.

This project also funds the salaries of civilian employees conducting Test and Evaluation early involvement, evaluation and test design missions and associated personnel support/sustainment costs including: temporary duty, professional training, supplies, and equipment. This project does not finance test facility operations, test instrumentation or test 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 6: *RDT&E Management Support*		R-1 Program Element (Number/Name) PE 0605898A / *Management HQ - R&D*			
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	18.524	54.175	53.907	-	53.907
Current President's Budget	16.844	54.145	49.592	-	49.592
Total Adjustments	-1.680	-0.030	-4.315	-	-4.315
• Congressional General Reductions	-0.052	-0.030			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.131	-			
• Adjustments to Budget Years	-	-	-4.315	-	-4.315
• Other Adjustments	-1.497	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0605898A / *Management HQ - R&D*				Project (Number/Name) M65 / *Army Test and Evaluation Command*			
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**
M65: *Army Test and Evaluation Command*	-	16.844	54.145	49.592	-	49.592	51.827	52.973	53.318	48.789	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Note

Army consolidated three Test and Evaluation Command Headquarters: Army Test and Evaluation Command (ATEC), Developmental Test Command (DTC), and Army Evaluation Center (AEC). As a result of this consolidation, ATEC aligned all requirements under this one Program Element. Funds reprogrammed effective FY2014.

A. Mission Description and Budget Item Justification

This project provides funding for the salaries and related personnel benefits for the authorized civilian personnel positions that provide for the management functions and the technical direction of the U.S. Army Test and Evaluation Command (ATEC) mission located at Aberdeen Proving Ground, Maryland. ATEC plans, conducts and integrates developmental testing, independent operational testing, independent evaluations, assessments and experiments to provide essential information to Soldiers and acquisition decision makers supporting the American Warfighter.

This project includes staff/management functions of resource management, safety, security, environmental, strategic planning and information/technology support for command-wide databases in support of the developmental, evaluation and operational test mission with technical direction to the Army Evaluation Center (AEC), Aberdeen Proving Ground, Maryland, to the Operational Test Command (OTC), Fort Hood, Texas and to the seven Major Range and Test Facility Base (MRTFBs) and one non-MRTFB test range: Aberdeen Test Center (ATC), Aberdeen Proving Ground, Maryland; Dugway Proving Ground (DPG), Utah; Electronic Proving Ground (EPG), Fort Huachuca, Arizona; White Sands Missile Range (WSMR), New Mexico; Yuma Proving Ground (YPG), Arizona; Cold Regions Test Center (CRTC), Fort Greely, Alaska; and Tropic Regions Test Center (TRTC) at various locations, as well as for Redstone Test Center (RTC) Redstone Arsenal, Alabama. This is the operating budget for ATEC Headquarters, which provides technical direction for the annual execution of over 3,000 developmental tests; more than 70 operational events; and more than 1,000 documents supporting acquisition programs. ATEC has an authorized workforce of more than 9,549 workyears, and a $1.8 billion program.

This project also funds the salaries of civilian employees conducting Test and Evaluation early involvement, evaluation and test design missions and associated personnel support/sustainment costs including: temporary duty, professional training, supplies, and equipment. This project does not finance test facility operations, test instrumentation or test equipment.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Civilian labor and other support required to manage and administer the Army test and evaluation mission at ATEC.	16.844	51.711	47.363
Articles:	-	-	-
Description: Civilian labor and other support required to manage and administer the Army test and evaluation mission at ATEC.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605898A / *Management HQ - R&D*	**Project (Number/Name)** M65 / *Army Test and Evaluation Command*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Funded authorized civilian salaries, associated expenses (supplies, equipment, travel, etc.) and other support required to manage and administer the Army test and evaluation mission at ATEC. ***FY 2014 Plans:*** Funds authorized civilian salaries, associated expenses (supplies, equipment, travel, etc.) and other support required to manage and administer the Army test and evaluation mission at ATEC. ***FY 2015 Plans:*** Will Fund authorized civilian salaries, associated expenses (supplies, equipment, travel, etc.) and other support required to manage and administer the Army test and evaluation mission at ATEC.			
Title: Joint Operational Testing and Evaluation	-	2.434	2.229
Articles:	-	-	-
Description: This project funds the Army's direct costs of planning and conducting Multi-service Tests and Evaluations (MOTE) for which there is no Army Project Manager (PM) and Army requirements for Joint Test and Evaluation (JT&E). These are required to evaluate concepts and address needs and issues that occur in joint military environments and provides information required by Congress, Office of the Secretary of Defense, the Unified Commands, and the Department of Defense components relative to joint operations. This project also funds Follow-on Test and Evaluation (FOTE), as necessary. FOTE may be required after a full production decision to assess system training and logistics, to verify correction of deficiencies identified during earlier testing and evaluation, and to ensure that initial production items meet operational effectiveness, suitability and supportability thresholds. There has been a shift of focus for items funded by this project due to continuing operations in the US Central Command (CENTCOM). Traditional system workload has dropped off and has been replaced by rapid fielding initiatives. In response to this shift, the Army Test and Evaluation Command (ATEC) has established a forward operational assessment team in theater and a rapid response cell. These groups facilitate MOTE, JT&E, and FOTE events in the rapid environment. Traditional acquisition requirements are expected to return to normal when operations in Iraq and Afghanistan wind down. ***FY 2014 Plans:*** Funding to support task force requirements (TDY, Civ Pay and associated overhead expenses), Multi-Service Operational Test and Evaluation/Follow-on testing and evaluations and will continue to Fund Integrated broadcasting service spiral enterprise T&E. Prior to FY14, funds were programmed in Program Element 0605712A001. ***FY 2015 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 6	**R-1 Program Element (Number/Name)** PE 0605898A / *Management HQ - R&D*	**Project (Number/Name)** M65 / *Army Test and Evaluation Command*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Will provide funding to support task force requirements (TDY, Civ Pay and associated overhead expenses), Multi-Service Operational Test and Evaluation/Follow-on testing and evaluations and will continue to Fund Integrated broadcasting service spiral enterprise T&E. Prior to FY14, funds were programmed in Program Element 0605712A001.			
Accomplishments/Planned Programs Subtotals	16.844	54.145	49.592

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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