Department of Defense
Fiscal Year (FY) 2013 President's Budget Submission

February 2012

Army

Justification Book

Research, Development, Test & Evaluation, Army

RDT&E - Volume II, Budget Activity 4

Department of the Army

FY 2013 RDT&E Program

President's Budget 2013

Summary

Exhibit R-1

06-Jan-2012

Summary Recap of Budget Activities	Thousands of Dollars				
	FY2011	FY2012	FY2013	FY2013 OCO	FY2013 Total
Basic research	388,660	456,200	444,071	0	444,071
Applied Research	825,021	946,836	874,730	0	874,730
Advanced technology development	804,783	1,132,838	890,722	0	890,722
Advanced Component Development and Prototypes	930,583	544,328	610,121	19,860	629,981
System Development and Demonstration	3,968,785	3,238,656	3,286,629	0	3,286,629
Management support	1,400,358	1,097,294	1,153,980	0	1,153,980
Operational system development	1,437,782	1,339,540	1,664,534	0	1,664,534
Total RDT&E, Army	9,755,972	8,755,692	8,924,787	19,860	8,944,647

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Line No	Program Element Number	Act	Item	Thousands of Dollars FY2011	FY2012	FY2013	FY2013 OCO	FY2013 Total
			Basic research					
1	0601101A	01	IN-HOUSE LABORATORY INDEPENDENT RESEARCH	21,095	21,031	20,860		20,860
2	0601102A	01	DEFENSE RESEARCH SCIENCES	190,019	213,604	219,180		219,180
3	0601103A	01	UNIVERSITY RESEARCH INITIATIVES	84,445	80,850	80,986		80,986
4	0601104A	01	UNIVERSITY AND INDUSTRY RESEARCH CENTERS	93,101	140,715	123,045		123,045
			Total: Basic research	388,660	456,200	444,071	0	444,071
			Applied Research					
5	0602105A	02	MATERIALS TECHNOLOGY	28,730	50,679	29,041		29,041
6	0602120A	02	SENSORS AND ELECTRONIC SURVIVABILITY	46,491	43,453	45,260		45,260
7	0602122A	02	TRACTOR HIP	14,126	14,207	22,439		22,439
8	0602211A	02	AVIATION TECHNOLOGY	40,869	44,539	51,607		51,607
9	0602270A	02	ELECTRONIC WARFARE TECHNOLOGY	16,939	15,765	15,068		15,068
10	0602303A	02	MISSILE TECHNOLOGY	48,092	67,079	49,383		49,383
11	0602307A	02	ADVANCED WEAPONS TECHNOLOGY	17,542	20,002	25,999		25,999
12	0602308A	02	ADVANCED CONCEPTS AND SIMULATION	19,907	20,900	23,507		23,507
13	0602601A	02	COMBAT VEHICLE AND AUTOMOTIVE TECHNOLOGY	61,893	64,205	69,062		69,062
14	0602618A	02	BALLISTICS TECHNOLOGY	60,595	59,121	60,823		60,823
15	0602622A	02	CHEMICAL, SMOKE AND EQUIPMENT DEFEATING TECHNOLOGY	10,555	4,869	4,465		4,465
16	0602623A	02	JOINT SERVICE SMALL ARMS PROGRAM	7,630	8,231	7,169		7,169
17	0602624A	02	WEAPONS AND MUNITIONS TECHNOLOGY	41,368	54,727	35,218		35,218
18	0602705A	02	ELECTRONICS AND ELECTRONIC DEVICES	63,186	62,862	60,300		60,300
19	0602709A	02	NIGHT VISION TECHNOLOGY	39,131	55,116	53,244		53,244
20	0602712A	02	COUNTERMINE SYSTEMS	18,507	32,728	18,850		18,850
21	0602716A	02	HUMAN FACTORS ENGINEERING TECHNOLOGY	20,583	21,767	19,872		19,872
22	0602720A	02	ENVIRONMENTAL QUALITY TECHNOLOGY	21,704	20,804	20,095		20,095
23	0602782A	02	COMMAND, CONTROL, COMMUNICATIONS TECHNOLOGY	24,914	26,075	28,852		28,852
24	0602783A	02	COMPUTER AND SOFTWARE TECHNOLOGY	6,599	8,577	9,830		9,830
25	0602784A	02	MILITARY ENGINEERING TECHNOLOGY	73,346	80,190	70,693		70,693

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26	0602785A	02	MANPOWER/PERSONNEL/TRAINING TECHNOLOGY	18,982	18,917	17,781		17,781
27	0602786A	02	WARFIGHTER TECHNOLOGY	26,972	46,261	28,281		28,281
28	0602787A	02	MEDICAL TECHNOLOGY	96,360	105,762	107,891		107,891
	Total:		Applied Research	825,021	946,836	874,730	0	874,730
			Advanced technology development					
29	0603001A	03	WARFIGHTER ADVANCED TECHNOLOGY	36,122	52,896	39,359		39,359
30	0603002A	03	MEDICAL ADVANCED TECHNOLOGY	114,036	102,810	69,580		69,580
31	0603003A	03	AVIATION ADVANCED TECHNOLOGY	55,492	62,095	64,215		64,215
32	0603004A	03	WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY	65,495	76,955	67,613		67,613
33	0603005A	03	COMBAT VEHICLE AND AUTOMOTIVE ADVANCED TECHNOLOGY	125,677	145,914	104,359		104,359
34	0603006A	03	COMMAND, CONTROL, COMMUNICATIONS ADVANCED TECHNOLOGY	7,823	5,304	4,157		4,157
35	0603007A	03	MANPOWER, PERSONNEL AND TRAINING ADVANCED TECHNOLOGY	7,694	10,282	9,856		9,856
36	0603008A	03	ELECTRONIC WARFARE ADVANCED TECHNOLOGY	48,698	69,852	50,661		50,661
37	0603009A	03	TRACTOR HIKE	7,761	8,142	9,126		9,126
38	0603015A	03	NEXT GENERATION TRAINING & SIMULATION SYSTEMS	14,788	17,907	17,257		17,257
39	0603020A	03	TRACTOR ROSE	11,872	12,577	9,925		9,925
40	0603105A	03	MILITARY HIV RESEARCH	25,738	22,760	6,984		6,984
41	0603125A	03	COMBATING TERRORISM - TECHNOLOGY DEVELOPMENT	9,424	22,172	9,716		9,716
42	0603130A	03	TRACTOR NAIL		4,271	3,487		3,487
43	0603131A	03	TRACTOR EGGS		2,257	2,323		2,323
44	0603270A	03	ELECTRONIC WARFARE TECHNOLOGY	18,973	23,640	21,683		21,683
45	0603313A	03	MISSILE AND ROCKET ADVANCED TECHNOLOGY	76,272	90,458	71,111		71,111
46	0603322A	03	TRACTOR CAGE	9,661	10,299	10,902		10,902
47	0603461A	03	HIGH PERFORMANCE COMPUTING MODERNIZATION PROGRAM		227,790	180,582		180,582
48	0603606A	03	LANDMINE WARFARE AND BARRIER ADVANCED TECHNOLOGY	26,089	31,491	27,204		27,204
49	0603607A	03	JOINT SERVICE SMALL ARMS PROGRAM	8,236	7,674	6,095		6,095
50	0603710A	03	NIGHT VISION ADVANCED TECHNOLOGY	71,723	42,348	37,217		37,217
51	0603728A	03	ENVIRONMENTAL QUALITY TECHNOLOGY DEMONSTRATIONS	15,417	15,934	13,626		13,626
52	0603734A	03	MILITARY ENGINEERING ADVANCED TECHNOLOGY	23,617	36,458	28,458		28,458

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53	0603772A	03	ADVANCED TACTICAL COMPUTER SCIENCE AND SENSOR TECHNOLOGY	24,175	30,552	25,226		25,226
	Total:		Advanced technology development	804,783	1,132,838	890,722	0	890,722
			Advanced Component Development and Prototypes					
54	0603305A	04	ARMY MISSLE DEFENSE SYSTEMS INTEGRATION	11,156	24,386	14,505		14,505
55	0603308A	04	ARMY SPACE SYSTEMS INTEGRATION	29,845	9,763	9,876		9,876
56	0603619A	04	LANDMINE WARFARE AND BARRIER - ADV DEV	14,686	19,596	5,054		5,054
57	0603627A	04	SMOKE, OBSCURANT AND TARGET DEFEATING SYS-ADV DEV	2,337	4,572	2,725		2,725
58	0603639A	04	TANK AND MEDIUM CALIBER AMMUNITION	35,849	40,314	30,560		30,560
59	0603653A	04	ADVANCED TANK ARMAMENT SYSTEM (ATAS)	200,312	65,417	14,347		14,347
60	0603747A	04	SOLDIER SUPPORT AND SURVIVABILITY	26,847	13,903	10,073	19,860	29,933
61	0603766A	04	TACTICAL ELECTRONIC SURVEILLANCE SYSTEM - ADV DEV	19,610	5,856	8,660		8,660
62	0603774A	04	NIGHT VISION SYSTEMS ADVANCED DEVELOPMENT	4,975		10,715		10,715
63	0603779A	04	ENVIRONMENTAL QUALITY TECHNOLOGY - DEM/VAL	3,622	5,023	4,631		4,631
64	0603782A	04	WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL	200,732	185,819	278,018		278,018
65	0603790A	04	NATO RESEARCH AND DEVELOPMENT	4,879	4,839	4,961		4,961
66	0603801A	04	AVIATION - ADV DEV	8,058	7,218	8,602		8,602
67	0603804A	04	LOGISTICS AND ENGINEER EQUIPMENT - ADV DEV	62,999	12,706	14,605		14,605
68	0603805A	04	COMBAT SERVICE SUPPORT CONTROL SYSTEM EVALUATION AND ANALYSIS	20,801	5,250	5,054		5,054
69	0603807A	04	MEDICAL SYSTEMS - ADV DEV	27,247	35,543	24,384		24,384
70	0603827A	04	SOLDIER SYSTEMS - ADVANCED DEVELOPMENT	51,415	18,030	32,050		32,050
71	0603850A	04	INTEGRATED BROADCAST SERVICE	939	1,494	96		96
72	0604115A	04	TECHNOLOGY MATURATION INITIATIVES	3,000	10,165	24,868		24,868
73	0604131A	04	TRACTOR JUTE		15,584	59		59
74	0604284A	04	JOINT COOPERATIVE TARGET IDENTIFICATION - GROUND (JCTI-G) / TECHNOLOG		15,287			
75	0604319A	04	INDIRECT FIRE PROTECTION CAPABILITY INCREMENT 2-INTERCEPT (IFPC2)			76,039		76,039
76	0604775A	04	DEFENSE RAPID INNOVATION PROGRAM	101,265				
77	0604785A	04	INTEGRATED BASE DEFENSE (BUDGET ACTIVITY 4)			4,043		4,043
78	0305205A	04	ENDURANCE UAVS	100,009	43,563	26,196		26,196

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	Total:		Advanced Component Development and Prototypes	930,583	544,328	610,121	19,860	629,981
			System Development and Demonstration					
79	0604201A	05	AIRCRAFT AVIONICS	70,926	119,573	78,538		78,538
80	0604220A	05	ARMED, DEPLOYABLE HELOS	69,922	82,363	70,277		70,277
81	0604270A	05	ELECTRONIC WARFARE DEVELOPMENT	196,428	34,233	181,347		181,347
82	0604280A	05	JOINT TACTICAL RADIO	755				
83	0604290A	05	MID-TIER NETWORKING VEHICULAR RADION (MNVR)			12,636		12,636
84	0604321A	05	ALL SOURCE ANALYSIS SYSTEM	24,322	7,405	5,694		5,694
85	0604328A	05	TRACTOR CAGE	17,914	26,552	32,095		32,095
86	0604601A	05	INFANTRY SUPPORT WEAPONS	73,008	83,395	96,478		96,478
87	0604604A	05	MEDIUM TACTICAL VEHICLES	3,578	3,957	3,006		3,006
88	0604609A	05	SMOKE, OBSCURANT AND TARGET DEFEATING SYS - ENG DEV	5,146				
89	0604611A	05	JAVELIN		9,930	5,040		5,040
90	0604622A	05	FAMILY OF HEAVY TACTICAL VEHICLES	2,829	55,426	3,077		3,077
91	0604633A	05	AIR TRAFFIC CONTROL	9,559	22,900	9,769		9,769
92	0604641A	05	TACTICAL UNMANNED GROUND VEHICLE (TUGV)			13,141		13,141
93	0604642A	05	LIGHT TACTICAL WHEELED VEHICLES	1,918	19,981	20,217		20,217
94	0604661A	05	FCS SYSTEMS OF SYSTEMS ENGR & PROGRAM MGMT	471,559	298,589			
95	0604662A	05	FCS RECONNAISSANCE (UAV) PLATFORMS	18,792				
96	0604663A	05	FCS UNMANNED GROUND VEHICLES	200,000	35,966			
97	0604664A	05	FCS UNATTENDED GROUND SENSORS	1,451				
98	0604665A	05	FCS SUSTAINMENT & TRAINING R&D	598,673				
99	0604710A	05	NIGHT VISION SYSTEMS - ENG DEV	44,513	59,195	32,621		32,621
100	0604713A	05	COMBAT FEEDING, CLOTHING, AND EQUIPMENT	2,043	2,073	2,132		2,132
101	0604715A	05	NON-SYSTEM TRAINING DEVICES - ENG DEV	26,848	29,981	44,787		44,787
102	0604716A	05	TERRAIN INFORMATION - ENG DEV		1,594	1,008		1,008
103	0604741A	05	AIR DEFENSE COMMAND, CONTROL AND INTELLIGENCE - ENG DEV	139,662	82,932	73,333		73,333
104	0604742A	05	CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT	29,287	28,274	28,937		28,937
105	0604746A	05	AUTOMATIC TEST EQUIPMENT DEVELOPMENT	13,553	14,361	10,815		10,815

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106	0604760A	05	DISTRIBUTIVE INTERACTIVE SIMULATIONS (DIS) - ENG DEV	15,031	15,787	13,926		13,926
107	0604780A	05	COMBINED ARMS TACTICAL TRAINER (CATT) CORE	26,699	22,205	17,797		17,797
108	0604798A	05	BRIGADE ANALYSIS, INTEGRATION AND EVALUATION			214,270		214,270
109	0604802A	05	WEAPONS AND MUNITIONS - ENG DEV	25,099	13,815	14,581		14,581
110	0604804A	05	LOGISTICS AND ENGINEER EQUIPMENT - ENG DEV	39,588	173,146	43,706		43,706
111	0604805A	05	COMMAND, CONTROL, COMMUNICATIONS SYSTEMS - ENG DEV	73,042	81,733	20,776		20,776
112	0604807A	05	MEDICAL MATERIEL/MEDICAL BIOLOGICAL DEFENSE EQUIPMENT - ENG DEV	33,262	27,132	43,395		43,395
113	0604808A	05	LANDMINE WARFARE/BARRIER - ENG DEV	37,707	76,248	104,983		104,983
114	0604814A	05	ARTILLERY MUNITIONS - EMD	25,467	37,592	4,346		4,346
115	0604817A	05	COMBAT IDENTIFICATION	2,893				
116	0604818A	05	ARMY TACTICAL COMMAND & CONTROL HARDWARE & SOFTWARE	57,264	93,846	77,223		77,223
117	0604820A	05	RADAR DEVELOPMENT		2,885	3,486		3,486
118	0604822A	05	GENERAL FUND ENTERPRISE BUSINESS SYSTEM (GFEBS)	13,094	793	9,963		9,963
119	0604823A	05	FIREFINDER	22,455	10,348	20,517		20,517
120	0604827A	05	SOLDIER SYSTEMS - WARRIOR DEM/VAL	20,122	61,350	51,851		51,851
121	0604854A	05	ARTILLERY SYSTEMS - EMD	99,937	120,032	167,797		167,797
122	0604869A	05	PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP)	450,584	389,630	400,861		400,861
123	0604870A	05	NUCLEAR ARMS CONTROL MONITORING SENSOR NETWORK	7,017	7,391	7,922		7,922
124	0605013A	05	INFORMATION TECHNOLOGY DEVELOPMENT	50,054	32,065	51,463		51,463
125	0605018A	05	INTEGRATED PERSONNEL AND PAY SYSTEM-ARMY (IPPS-A)	58,348	68,628	158,646		158,646
126	0605450A	05	JOINT AIR-TO-GROUND MISSILE (JAGM)	71,760	126,895	10,000		10,000
127	0605455A	05	SLAMRAAM	18,358	1,529			
128	0605456A	05	PAC-3/MSE MISSILE	121,475	88,909	69,029		69,029
129	0605457A	05	ARMY INTEGRATED AIR AND MISSILE DEFENSE (AIAMD)	246,691	270,180	277,374		277,374
130	0605625A	05	MANNED GROUND VEHICLE	312,269	448,679	639,874		639,874
131	0605626A	05	AERIAL COMMON SENSOR	101,171	31,435	47,426		47,426
132	0605812A	05	JOINT LIGHT TACTICAL VEHICLE (JLTV) ENGINEERING AND MANUFACTURING D			72,295		72,295
133	0303032A	05	TROJAN - RH12	3,578	3,916	4,232		4,232
134	0304270A	05	ELECTRONIC WARFARE DEVELOPMENT	13,134	13,807	13,942		13,942

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	Total:		System Development and Demonstration	3,968,785	3,238,656	3,286,629	0	3,286,629
	Management support							
135	0604256A	06	THREAT SIMULATOR DEVELOPMENT	25,367	26,117	18,090		18,090
136	0604258A	06	TARGET SYSTEMS DEVELOPMENT	8,362	11,229	14,034		14,034
137	0604759A	06	MAJOR T&E INVESTMENT	40,671	49,359	37,394		37,394
138	0605103A	06	RAND ARROYO CENTER	19,763	20,352	21,026		21,026
139	0605301A	06	ARMY KWAJALEIN ATOLL	190,005	145,377	176,816		176,816
140	0605326A	06	CONCEPTS EXPERIMENTATION PROGRAM	17,101	28,755	27,902		27,902
141	0605502A	06	SMALL BUSINESS INNOVATIVE RESEARCH	232,092				
142	0605601A	06	ARMY TEST RANGES AND FACILITIES	399,931	311,650	369,900		369,900
143	0605602A	06	ARMY TECHNICAL TEST INSTRUMENTATION AND TARGETS	68,118	70,116	69,183		69,183
144	0605604A	06	SURVIVABILITY/LETHALITY ANALYSIS	42,320	43,414	44,753		44,753
145	0605605A	06	DOD HIGH ENERGY LASER TEST FACILITY	4,568	18			
146	0605606A	06	AIRCRAFT CERTIFICATION	4,938	5,621	5,762		5,762
147	0605702A	06	METEOROLOGICAL SUPPORT TO RDT&E ACTIVITIES	6,983	7,171	7,402		7,402
148	0605706A	06	MATERIEL SYSTEMS ANALYSIS	18,863	19,638	19,954		19,954
149	0605709A	06	EXPLOITATION OF FOREIGN ITEMS	5,285	5,436	5,535		5,535
150	0605712A	06	SUPPORT OF OPERATIONAL TESTING	68,481	68,678	67,789		67,789
151	0605716A	06	ARMY EVALUATION CENTER	60,694	63,202	62,765		62,765
152	0605718A	06	ARMY MODELING & SIM X-CMD COLLABORATION & INTEG	3,787	3,415	1,545		1,545
153	0605801A	06	PROGRAMWIDE ACTIVITIES	71,984	82,923	83,422		83,422
154	0605803A	06	TECHNICAL INFORMATION ACTIVITIES	49,579	55,286	50,820		50,820
155	0605805A	06	MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFETY	42,474	57,054	46,763		46,763
156	0605857A	06	ENVIRONMENTAL QUALITY TECHNOLOGY MGMT SUPPORT	3,084	4,953	4,601		4,601
157	0605898A	06	MANAGEMENT HQ - R&D	15,845	17,530	18,524		18,524
158	0909999A	06	FINANCING FOR CANCELLED ACCOUNT ADJUSTMENTS	63				
	Total:		Management support	1,400,358	1,097,294	1,153,980	0	1,153,980

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			Operational system development					
159	0603778A	07	MLRS PRODUCT IMPROVEMENT PROGRAM	19,016	66,641	143,005		143,005
160	0607665A	07	BIOMETRICS ENTERPRISE	65,781	45,511			
161	0607865A	07	PATRIOT PRODUCT IMPROVEMENT			109,978		109,978
162	0102419A	07	AEROSTAT JOINT PROJECT OFFICE	399,477	327,338	190,422		190,422
163	0203347A	07	INTELLIGENCE SUPPORT TO CYBER (ISC) MIP	2,283				
164	0203726A	07	ADV FIELD ARTILLERY TACTICAL DATA SYSTEM	23,812	29,500	32,556		32,556
165	0203735A	07	COMBAT VEHICLE IMPROVEMENT PROGRAMS	187,207	36,150	253,959		253,959
166	0203740A	07	MANEUVER CONTROL SYSTEM	24,648	42,347	68,325		68,325
167	0203744A	07	AIRCRAFT MODIFICATIONS/PRODUCT IMPROVEMENT PROGRAMS	121,084	149,469	280,247		280,247
168	0203752A	07	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM	688	822	898		898
169	0203758A	07	DIGITIZATION	6,103	8,016	35,180		35,180
170	0203759A	07	FORCE XXI BATTLE COMMAND, BRIGADE AND BELOW (FBCB2)	3,748				
171	0203801A	07	MISSILE/AIR DEFENSE PRODUCT IMPROVEMENT PROGRAM	23,415	53,015	20,738		20,738
172	0203808A	07	TRACTOR CARD	14,340	42,487	63,243		63,243
173	0208053A	07	JOINT TACTICAL GROUND SYSTEM	12,005	27,586	31,738		31,738
174	0208058A	07	JOINT HIGH SPEED VESSEL (JHSV)	3,041		35		35
175	0301359A	07	SPECIAL ARMY PROGRAM					
176	0303028A	07	SECURITY AND INTELLIGENCE ACTIVITIES		2,850	7,591		7,591
177	0303140A	07	INFORMATION SYSTEMS SECURITY PROGRAM	12,232	15,684	15,961		15,961
178	0303141A	07	GLOBAL COMBAT SUPPORT SYSTEM	123,136	160,491	120,927		120,927
179	0303142A	07	SATCOM GROUND ENVIRONMENT (SPACE)	32,525	12,085	15,756		15,756
180	0303150A	07	WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM	12,606	23,899	14,443		14,443
181	0305204A	07	TACTICAL UNMANNED AERIAL VEHICLES	38,049	26,508	31,303		31,303
182	0305208A	07	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	125,404	31,649	40,871		40,871
183	0305219A	07	MQ-1 SKY WARRIOR A UAV	119,195	121,846	74,618		74,618
184	0305232A	07	RQ-11 UAV	1,547	1,935	4,039		4,039
185	0305233A	07	RQ-7 UAV	7,555	31,896	31,158		31,158
186	0305235A	07	MQ-18 UAV		7,500	2,387		2,387
187	0307665A	07	BIOMETRICS ENABLED INTELLIGENCE	2,069	15,018	15,248		15,248

Line No	Program Element Number	Act	Item	Thousands of Dollars FY2011	FY2012	FY2013	FY2013 OCO	FY2013 Total
188	0708045A	07	END ITEM INDUSTRIAL PREPAREDNESS ACTIVITIES	56,816	59,297	59,908		59,908
		Total:	Operational system development	1,437,782	1,339,540	1,664,534	0	1,664,534
Total:	RDT&E, Army			9,755,972	8,755,692	8,924,787	19,860	8,944,647

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Budget Activity 04: Advanced Component Development & Prototypes (ACD&P)
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Budget Activity 04: Advanced Component Development & Prototypes (ACD&P)
Appropriation 2040: Research, Development, Test & Evaluation, Army

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

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APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	11.156	24.386	14.505	-	14.505	15.375	15.691	14.713	14.874	Continuing	Continuing
TR5: *MISSILE DEFENSE BATTLELAB*	7.013	15.117	14.505	-	14.505	15.375	15.691	14.713	14.874	Continuing	Continuing
TR7: *Indirect Fire Protection Capability II - Intercept*	4.143	9.269	-	-	-	-	-	-	-	Continuing	Continuing

Note

FY 2011: Funds realigned ($0.299 million) to higher priorities.
FY 2012: Funds realigned ($11.623 million) to higher priorities.
FY 2013: Funds realigned ($69.052 million) to higher priorities.

A. Mission Description and Budget Item Justification

This Program Element funds missile defense systems integration efforts for both the US Army Space and Missile Defense Command/Army Forces Strategic Command (USASMDC/ARSTRAT) and the Program Executive Office for Missiles and Space (PEO-MS).

USASMDC/ARSTRAT: Headquarters, Department of the Army General Order 37, dated 16 October 2006, designated USASMDC/ARSTRAT as the Army proponent for space and ground-based midcourse defense (GMD), the Army integrator for global missile defense, and the Army Service Component Command (ASCC) of the U.S. Strategic Command (USSTRATCOM). Army Regulation (AR) 10-87 Army Commands, Army Service Component Commands, and Direct Reporting Units, dated 4 September 2007 and AR 5-22 The Army Force Modernization Proponent System dated 19 August 2009 designates USASMDC/ARSTRAT as the Army specified proponent for Global Missile Defense and Space/High Altitude capabilities. As the Army proponent for space, high altitude and GMD, USASMDC/ARSTRAT is responsible to develop warfighting concepts, conduct warfighting experiments to validate those concepts, identify capabilities needed to implement the validated concepts, and develop Doctrine, Organizations, Training, Material, Leadership & Education, Personnel and Facilities (DOTMLPF) solutions to realize the GMD capabilities. As the Army integrator for global missile defense, USASMDC/ARSTRAT is responsible to review programs managed by the Army, other Services, Defense agencies and National agencies to ensure that they are correctly synchronized and will ultimately provide the capabilities required by USSTRATCOM to execute its global missile defense responsibilities.

Project TR5 funds United States Army Space and Missile Defense Command/ Army Strategic Command (USASMDC/ARSTRAT) efforts to develop, analyze and mature warfighting concepts, focus military science and technology research, and conduct warfighting experiments for Space, Missile Defense, and High Altitude. Additionally, this project funds the delivery of innovations to the warfighter through prototyping, operational analysis, and experimentation in support of current and future Forces.

Project TR7 funds the Cruise Missile Defense Systems Project Office/ Program Executive Office Missiles and Space efforts to develop Indirect Fire Protection Capability Increment II - Intercept capabilities required to execute the US Army's objective Counter-Rockets, Artillery, and Mortar (C-RAM) mission.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603305A: *Army Missle Defense Systems Integration*

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	11.455	36.009	83.557	-	83.557
Current President's Budget	11.156	24.386	14.505	-	14.505
Total Adjustments	-0.299	-11.623	-69.052	-	-69.052
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.128	-			
• Adjustments to Budget Years	-	-	-69.052	-	-69.052
• Other Adjustments 1	-0.171	-11.623	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR5: *MISSILE DEFENSE BATTLELAB*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
TR5: *MISSILE DEFENSE BATTLELAB*	7.013	15.117	14.505	-	14.505	15.375	15.691	14.713	14.874	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Project TR5 funds United States Army Space and Missile Command/ Army Strategic Command (USASMDC/ARSTRAT) efforts to develop, analyze and mature warfighting concepts, focus military science and technology research, and conduct warfighting experiments for Space, Missile Defense, and High Altitude. Additionally, this project funds the delivery of innovations to the warfighter through prototyping, and operational analysis in support of current and future Forces. The concepts, experiments, analyses, and prototypes apply to the entire mission areas assigned to USASMDC/ARSTRAT in its role as an Army Service Component Command (ASCC) to USSTRATCOM: Missile Defense, Space, Information Operations (IO), Global Strike (GS), Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR). .

The Future Warfare Center (FWC) identifies Service, Joint, Interagency and Multinational capability gaps and investigates, develops and transitions Integrated Air and Missile Defense prototype technology solutions. The FWC performs operational and cost benefit analyses, and develops Missile Defense threat specifications that enable the studies required to support major decisions concerning acquisition and the development of Concepts of Operations (CONOPS) that provide the best Army and Joint Space, Missile Defense, High Altitude, and Cyberspace capabilities to current and future warfighters.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Prototypes	4.207	9.069	8.661
Articles:	0	0	

Description: Funding is provided for the following effort

FY 2011 Accomplishments:

Developed the space, missile defense and high altitude portions of Army Capstone Operational Concepts and six Functional Concepts; developed two special topic events on Army operations in a degraded space environment and Army operations in a contested cyber environment for the Unified Quest events and; conducted Army directed Organizational-Based Assessment of Missile Defense and Space Brigades. Developed and executed technical and operational demonstrations for five COCOM led Joint Concept Technology Demonstrations in the areas of space, high altitude and Integrated Air and Missile Defense (IAMD) operational capabilities; demonstrated role of future space and high altitude capabilities to support improved LANDWARNET and persistent Intelligence Surveillance and Reconnaissance. Developed and fielded a homeland operations Joint, Interagency, Intergovernmental, and Multinational information sharing environment (leveraging battle lab prototypes) for the National Guard Joint Headquarters that significantly improves NORTHCOM's ability to push relevant information to on scene military and civil

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR5: *MISSILE DEFENSE BATTLELAB*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
first responders while providing clear Situational Awareness for senior decision makers; began integration with Program Manager Battle Command, to develop concept of operations for Army use of nano-Satellites and operationally responsive space systems to include support for recent launch of an Army satellite (SMDC-ONE) to validate Operationally Responsive Space concepts. Developed an Air and Missile Defense distributed planning server to support operational level homeland Air and Missile Defense planning support of ground-based air defense for Operation Noble Eagle. Supported rapid integration and fielding of friendly force tracking capabilities to Afghan National Forces. Worked with the Army Research Lab to expedite the insertion of advanced technologies into space, missile defense systems, and high altitude systems enhancing performance and reducing cost (this is an ongoing effort). ***FY 2012 Plans:*** Manage the Command and Control Gap Filler (C2F), Demonstrate for Joint, Interagency, Intergovernmental and Multinational (JIIM) partners a capability that enables efficient, secure, timely and trusted exchange of information resulting in enhanced aerospace capability for the Army. Sustain core functions to maintain prototyping platforms and collaborate with the Integrated Air and Missile Defense community on experimentation events. Additionally will maintain configuration management of prototyping systems (configuration control boards, user groups, architectures) resulting in a viable prototyping platform that has value to Joint Air and Missile Defense community. The Army Air and Missile Defense Command Planning support systems provide a net-centric infrastructure using Advanced Warfare Environment (AWarE) and Tactical integrated Geographic Environment (TIGER) software in support of Army Air and Missile Defense Commands and Detachments. Evaluate the feasibility of integrating Air/Event Information Sharing Services into NORTHCOM J6 decision support systems. ***FY 2013 Plans:*** Take the lessons learned from the FY12 efforts to continue to evaluate new technologies in realistic operating environments. This is accomplished by participating in and providing support to Unified Quest wargames and experiments to analyze and integrate technology to identify the feasibility integration into Army space, missile defense, and high altitude systems. The Space and Missile Defense Command will participate and support to biennial rewrites of Army Capstone, Operational and Functional Concepts. Continue to provide operational manager support to STRATCOM, NORTHCOM and SOCOM Joint Technical Capability Demonstrations to ensure Army space, missile defense, and high altitude equities are represented in advanced technology developments by demonstrating military utility when applied to military equipment and techniques. Examples include: supporting multi service experiments and capability development of the national-directed Phased Adaptive Approach (PAA) for Ballistic Missile Defense (BMD) as it is applied to each of the regional COCOMs; and experimenting with operationally responsive space and high altitude capabilities to ensure the broader Army enterprises can leverage the advantages of these platforms for communications, Intelligence Surveillance and Reconnaissance (ISR), position navigation, missile warning and command and control. Continue to develop mitigation strategies for Army forces to operate effectively in contested space, missile defense and cyber environments. Developing effective Integrated Missile Defense concepts for Army support to the Phased Adaptive Approach (PAA) being implemented within each regional COCOM. Based on a successful evaluation of Air/Event Information			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR5: *MISSILE DEFENSE BATTLELAB*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Sharing Services into NORTHCOM J6 decision support systems support the transition of the application to a Joint Capabilities Technical Demonstration (JCTD).			
Title: Analysis, and Models and Simulations (M&S)	2.806	6.048	5.844
Articles:	0	0	

Description: Funding is provided for the following effort

FY 2011 Accomplishments:
Conducted studies and operational assessments of concepts, doctrine, organizations, technologies and tactics that impacted on major decisions at the Army staff level. Studies ensure that Army equities in Joint system development of space, missile defense, and high altitude systems and concepts. Studies that were completed in FY11 are Terrestrial Communications Study, Space Superiority Program I Cost-benefit Analysis, Countermeasure Implication Study, Joint Capabilities Mix Phase III support. These studies have produced objective results focused on the value to the ground warfighter providing critical timely information to decision makers related to space, missile defense, and high altitude military utility, cost reduction, and concept exploration in support of Army systems and techniques. Additionally the Future Warfare Center supported experiments in various environments (synthetic and prototypes) to provide most realistic operating environment possible to evaluate technologies.

FY 2012 Plans:
Supports ongoing efforts that provide military utility and cost reduction analysis of space, missile defense, and high altitude systems specifically in realistic operating environments to be able to determine the ability of the specific technology to fill capability gaps in terms of utility to the warfighter. The technology demonstrations and exercises are used to help expedite technology transition from the laboratory or potential dual use commercial technologies include: augmenting analysis for Training and Doctrine Command (TRADOC) experiments and technology demonstrations; Nimble Fire Experiment; Global Thunder / Global Lightning Support and Air and Missile Defense Task Force analysis support. Support of technology demonstrations, Analysis and Demonstration Tools/Test Beds for evolving space superiority and operationally responsive space concepts that address emerging needs will continue and be expanded in the out years to ensure that advanced technology development can adequately address space, missile defense and high altitude doctrinal and material investments. The FWC will continue to update Extended Air Defense Simulation (EADSIM) (a space, missile defense, and high altitude decision support tool utilized by over 300 Army and Joint organizations) to provide the required analysis capability to perform evaluations of the benefits of integrating technologies.

FY 2013 Plans:
Take the lessons learned from the FY12 efforts to continue to evaluate new technologies in realistic operating environments. This will be accomplished by supporting ongoing efforts that provide the most realistic operating environment available to perform technology gap and cost reduction analysis of space, missile defense, and high altitude systems. Realistic operating environments will be available to determine the ability of the specific technologies to fill capability gaps in terms of utility to the

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR5: *MISSILE DEFENSE BATTLELAB*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
warfighter. Support of technology demonstrations, Analysis and Demonstration Tools/Test Beds for evolving space superiority and operationally responsive space concepts will address emerging needs and continue to be expanded to ensure that advanced technology development can adequately enhance address space, missile defense and high altitude. The FWC will continue to update EADSIM to provide the required high fidelity synthetic operating environment to provide the capability to perform system and cost benefit analysis.			
Accomplishments/Planned Programs Subtotals	7.013	15.117	14.505

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Not applicable for this item.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR5: *MISSILE DEFENSE BATTLELAB*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Experiments & technology enhancements of prototypes/ tools and analysis.	Various	Various Colorado Springs CO and Huntsville AL:Alabama, Colorado Springs	45.681	7.509		6.840		-		6.840	Continuing	Continuing	Continuing
Govt Support and Support Contracts	Various	Various Colorado Springs CO and Huntsville AL:Alabama, Colorado Springs	77.704	7.608		7.665		-		7.665	Continuing	Continuing	Continuing
Small Business Innovation Research/Small Business Technology Transfer Program	Various	Various:Various	0.155	-		-		-		-	Continuing	Continuing	0.000
		Subtotal	123.540	15.117		14.505		-		14.505			

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	123.540	15.117		14.505		-		14.505			

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR7: *Indirect Fire Protection Capability II - Intercept*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
TR7: *Indirect Fire Protection Capability II - Intercept*	4.143	9.269	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Indirect Fire Protection Capability Increment II - Intercept (IFPC2) established a new Program Element (PE) 0604319A for its RDTE program.

Previous PE/Project/Title: 0603305A/TR7 Army Missile Defense Systems Integration/TR7 Indirect Fire Protection Capability II-Intercept

Current PE/Project/Title: 0604319A/DU3 Indirect Fire Protection Capability Increment 2/ DU3 IFPC2

Please note the following:
1) The funding in FY 2011-12 is shown in PE 0603305A and
2) The funding in FY 2013-17 is shown in PE 0604319A

A. Mission Description and Budget Item Justification

This program supports the overall Air and Missile Defense (AMD) architecture and provides a robust intercept capability against rocket, artillery, and mortar (RAM) and residual Unmanned Aerial System (UAS) threats for deployed forces supporting stability and counterinsurgency operations. Indirect Fire Protection Capability Increment II -Intercept (IFPC2) will integrate with current Counter-Rocket, Artillery, and Mortar (C-RAM), and RAM Warn Capability. When implemented, IFPC2 will provide 360 degree protection against RAM and residual UAS threats simultaneously attacking from multiple azimuths. Anticipated system will consist of a kinetic (missile or gun) and/or directed energy Interceptor, Fire Control Sensor, Technical Fire Control, Command Vehicle and control interfaces between major components. The specific system concept will be determined by an Analysis of Alternatives (AoA) to be completed in FY 2012. Tactical Command and Control is an external interface to the IFPC2 program to be provided by supported forces.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Initiate Milestone Documentation and Analysis of Alternatives (AoA) Development	4.143	-	-
Articles:	0		
Description: Funding is provided for the following effort			
FY 2011 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR7: *Indirect Fire Protection Capability II - Intercept*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Initiate Milestone documentation development, define requirements in support of Contracts Requirement Package for contract award. Support Analysis of Alternatives development.			
Title: Engineering Technical support for Milestone documentation, Contract Requirements Package, System Requirements Review, technical assessments/concept studies ***Articles:*** ***Description:*** Funding is provided for the following effort: ***FY 2012 Plans:*** Support development of the Requirements baseline. Assist in the development of Milestone documentation (i.e., Technology Development Strategy, Test and Evaluation Strategy, and Systems Engineering Plan). Support Contract Requirements Package documentation (i.e., Scope of Work, Contract Data Requirements List, and Performance Specification). Support System Requirements Review preparation. Design of the Technical Fire Control, Command Vehicle, and Launcher. Development of Interface Control Documents. Perform technical assessments, concept studies, cost reduction, risk reduction, threat analysis, and required documentation.	-	4.213 0	-
Title: Government Product Office Support ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2012 Plans:*** Complete Milestone documentation (i.e., Technology Development Strategy, Test and Evaluation Strategy, and Systems Engineering Plan). Standing up Government Program Office to include personnel; infrastructure; travel; Milestone preparation; establish processes and procedures; support Analysis of Alternatives development and Contract Requirements Package (CRP) development for contract award in FY 2013.	-	5.056 0	-
Accomplishments/Planned Programs Subtotals	4.143	9.269	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PE 0604869A, Proj M06: *Patriot/ MEADS Combined Aggregate Program (CAP)*	450.584	389.630	400.861		400.861					Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR7: *Indirect Fire Protection Capability II - Intercept*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PE 0605456A, Proj PA3: *PAC-3/ MSE MISSILE*	121.475	88.909	69.029		69.029		130.348	63.975	65.771	Continuing	Continuing
• SSN C53101: *MSE Missile*		74.953	12.850		12.850		505.084	596.387	566.757	Continuing	Continuing
• PE 0102419A, Proj E55: *JLENS*	399.477	327.338	190.422		190.422		32.480	24.130	24.612	Continuing	Continuing
• PE 0605455A, Proj S35: *SLAMRAAM*	18.358	1.529								Continuing	Continuing
• SSN C81002: *SLAMRAAM Launcher*	2.355									Continuing	Continuing
• SSN WK5053: *FAAD GBS*	258.413	3.958	7.980		7.980					Continuing	Continuing
• PE 0605457A, Proj S40: *Army Integrated Air and Missile Defense (AIAMD)*	246.691	270.180	262.211		262.211		394.260	210.580	135.072	Continuing	Continuing
• SSN BZ5075: *Army IAMD Battle Command System (IBCS)*							103.453	281.828	426.582	Continuing	Continuing
• PE 0208053, Proj 635: *JOINT TACT GRD STATION-P3I (MIP)*	12.005	27.586	31.738		31.738		8.006	8.134	8.314	Continuing	Continuing
• SSN BZ8401: *Joint Tactical Ground Station (JTAGS)*	9.227	1.199	2.680		2.680		4.432	4.496	4.768	Continuing	Continuing
• PE 0604820A, Proj E10: *SENTINEL*		2.885	3.486		3.486		1.948	2.972	3.022	Continuing	Continuing
• PE 654741, Proj 126: *FAAD C2 ED*	7.978	9.730	3.664		3.664		3.388	3.505	3.640	Continuing	Continuing
• PE 654741, Proj 146: *Air & Msl Defense Planning Control System*	18.783	15.518	15.381		15.381		14.670	15.171	16.409	Continuing	Continuing
• PE 654741, Proj 149: *Counter-Rockets, Artillery & Mortars*	112.901	57.684	54.288		54.288					Continuing	Continuing

D. Acquisition Strategy

The Materiel Development Decision (MDD) was completed in fourth quarter FY 2011, allowing for the initiation of an Analysis of Alternatives (AoA) to determine material solution approach; establishment of requirement baseline; initiation of development of required Milestone documents; initiation of development and approval of Contract Requirements Package (CRP); and execution of the Milestone decision to authorize proceeding into the next phase of development and prepare for a contract award in FY 2013.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR7: *Indirect Fire Protection Capability II - Intercept*

Anticipated system will consist of a kinetic (missile or gun) and/or directed energy Interceptor, Fire Control Sensor, Technical Fire Control, Command Vehicle and control interfaces between major components.

Award multiple full and open competitive contracts at the beginning of the acquisition development phase for competing teams to develop interceptor/fire control sensor designs and key component/system prototypes which will be demonstrated in their tactical configurations for Government evaluation prior to a Preliminary Design Review.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR7: *Indirect Fire Protection Capability II - Intercept*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FY11 Pre MDD efforts	TBD	Cruise Missile Defense Systems Project Office:Huntsville, AL	4.143	-		-		-		-	Continuing	Continuing	0.000
Government Project Office Oversight	TBD	Cruise Missile Defense Systems Project Office:Huntsville, AL	-	1.056		-		-		-	Continuing	Continuing	Continuing
		Subtotal	4.143	1.056		-		-		-			

Remarks

Management Services are to initiate Milestone Documentation Development; define Requirements in support of Contract Requirements Package for contract award. Support Analysis of Alternatives development.

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Developmental Engineering	TBD	Cruise Missile Defense Systems Project Office:Huntsville, AL	-	4.000		-		-		-	Continuing	Continuing	Continuing
Engineering Technical Centers	TBD	Aviation and Missile Research, Development, Engineering Center:Huntsville, AL	-	4.213		-		-		-	Continuing	Continuing	Continuing
		Subtotal	-	8.213		-		-		-			

Remarks

Product Development costs in FY 2012 cover the development of System Engineering documentation (Technology Development Strategy; Test and Evaluation Strategy; System Engineering Plan); initiation of Contract Requirements Package development in preparation for Milestone in FY 2013 and for a prime contract award in FY 2013.

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	4.143	9.269		-		-		-			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR7: *Indirect Fire Protection Capability II - Intercept*	

	Total Prior Years Cost	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603305A: *Army Missle Defense Systems Integration*	**PROJECT** TR7: *Indirect Fire Protection Capability II - Intercept*

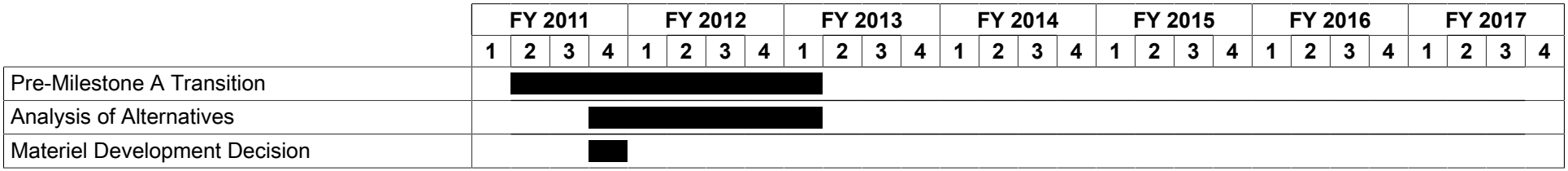

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603305A: *Army Missle Defense Systems Integration*	**PROJECT** TR7: *Indirect Fire Protection Capability II - Intercept*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Pre-Milestone A Transition	2	2011	1	2013
Analysis of Alternatives	4	2011	1	2013
Materiel Development Decision	4	2011	4	2011

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603308A: *Army Space Systems Integration*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	29.845	9.763	9.876	-	9.876	11.648	11.163	9.988	16.115	Continuing	Continuing
978: *SPACE CONTROL*	14.614	-	-	-	-	-	-	-	-	Continuing	Continuing
990: *Space and Missile Defense Integration*	15.231	9.763	9.876	-	9.876	11.648	11.163	9.988	16.115	Continuing	Continuing

Note

Funds stated in the "Previous President's Budget (FY 2012)" row in column "Base FY 2013" should be 9868 rather than the 23336. Actual delta placed in "Adjustments to Budget Years" row in Column "Base FY 2013" should be amended to reflect -8 rather than -13460.

Funds realigned to higher priority requirements.

A. Mission Description and Budget Item Justification

The program element funds space systems integration efforts performed by the US Army Space and Missile Defense Command/ Army Forces Strategic Command (USASMDC/ARSTRAT) and the Program Executive Office for Intelligence, Electronic Warfare, and Sensors (PEO IEW&S).

USASMDC/ARSTRAT: Headquarters, Department of the Army General Order Number 37, dated 16 October 2006, designated USASMDC/ARSTRAT as the Army proponent for space and ground-based midcourse defense (GMD), the Army integrator for global missile defense, and the Army Service Component Command of U.S. Strategic Command (USSTRATCOM). As such, USASMDC/ARSTRAT is responsible to develop warfighting concepts, conduct warfighting experiments to validate those concepts, identify capabilities needed to implement the validated concepts, and develop Doctrine, Organization, Training, Material, Leadership & Education, Personnel and Facilities (DOTMLPF) solutions to realize those space related capabilities. Army Regulation (AR) 10-87 Army Commands, Army Service Component Commands, and the Direct Reporting Units, dated 4 September 2007 and AR 5-22 The Army Force Modernization Proponent System dated 19 August 2009 designates USASMDC/ARSTRAT as the Army specified proponent for Global Missile Defense and Space/High Altitude Capabilities.

Project #990 funds USASMDC/ARSTRAT to integrate warfighting concepts and technologies, validate concepts, and identify capabilities need to implement the validated concepts, and develop DOTMLPF solutions to realize those space and high altitude related capabilities. Sustains Joint Friendly Force Tracking (J-FFT) Mission Management Center and its associated testbed for both operations and spiral development for 24/7 Friendly Force Tracking integration into a real-time common operating picture for Combatant Commanders, Joint Task Force Commanders (JTF) and Coalition partners. The MMC injects real-time J-FFT information into the Common Operating Picture for COCOMs, JTFs and Coalition partners. USSTRATCOM, in accordance with CJCSI 3910.01 (reference V.4.) is designated one of three coordinating agencies for J-FFT within DoD. CJCSI 3910.01 directs eight specified tasks to USSTRATCOM. USSTRATCOM SI 534-5 (reference V.6.) and annually published USSTRATCOM operations orders have designated USASMDC/ARSTRAT as the lead USSTRATCOM component command for FFT.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army					DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*		R-1 ITEM NOMENCLATURE PE 0603308A: *Army Space Systems Integration*			
B. Program Change Summary ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**
Previous President's Budget	27.551	9.612	23.336	-	23.336
Current President's Budget	29.845	9.763	9.876	-	9.876
Total Adjustments	2.294	0.151	-13.460	-	-13.460
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	3.178	-			
• SBIR/STTR Transfer	-0.641	-			
• Adjustments to Budget Years	-	-	-13.460	-	-13.460
• Other Adjustments 1	-0.243	0.151	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603308A: *Army Space Systems Integration*	PROJECT 978: *SPACE CONTROL*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
978: *SPACE CONTROL*	14.614	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

Note

FY 2011-2015 funding for the Long Endurance Multi-Intelligence Vehicle (LEMV) was moved from program element (PE) 0603308A to 0305205A.

FY12-16 funding for Space Control Project 978 moved to PE 0604131, Project DT1

A. Mission Description and Budget Item Justification

Tactical Data Terminals (Space), a Program Office assigned to the PEO for Intelligence, Electronic Warfare, and Sensors (PEO IEW&S) is developing a mobile, ground-based, tactically-centric space information superiority capability to meet Joint Requirements and validated Training and Doctrine Command (TRADOC) capability gaps. The system is a forward-deployed platform to generate, receive, monitor, analyze and store satellite communications in direct support of the ground force Commander. The system is centered on a Modular and Open System Approach (MOSA) that will enhance (less time, less cost) future upgrades to meet emerging space capabilities. System mobility (using government-off-the-shelf (GOTS) tactical vehicles such as the potential Joint Light Tactical Vehicle (JLTV) or the Mine Resistant Ambush Protected (MRAP)) will enable the system to move to positions of geographical advantage to establish and maintain assured space data access and information superiority in support of Brigade tactical operations.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Space Control - Technology Development	14.614	-	-
Articles:	0		
Description: Funding is provided for the following effort			
FY 2011 Accomplishments: Performed risk reduction and technology maturation of competitive system prototypes to Technology Readiness Level 6. Completed Request for Proposal and prepare to openly compete the Engineering and Manufacturing Development Phase contract. Funds also were used for Program Management Office support and Security.			
Accomplishments/Planned Programs Subtotals	14.614	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603308A: *Army Space Systems Integration*	PROJECT 978: *SPACE CONTROL*

D. Acquisition Strategy

The Product entered the Technology Development (TD) Phase in 3QFY09 following a successful Material Development Decision and Milestone A. The Program Office leveraged a Small Business Set Aside Competition to award two competitive prototype contracts. The Program is managing the competitive prototype contracts and leveraging Army and Other Government Agency Science & Technology efforts to retire maximum risk (cost, schedule, and performance) prior to competing and awarding a contract in support of the Engineering and Manufacturing Development (EMD) Phase.

In FY12, the Product Office will complete Developmental Testing for the TD Phase (proving Technology is at TRL 6) and finalize documentation and entry criteria to support a subsequent Milestone B decision. Intent of the Acquisition Strategy is to capitalize on Open competition for the EMD contract with a goal of maximizing fixed price incentive firm (FPIF) contracts for post Milestone B efforts and firm-fixed-pricing (FFP) for production.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603308A: *Army Space Systems Integration*	PROJECT 978: *SPACE CONTROL*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Space Control - Program and Security Management	Various	Program Management and Security Oversight:AL	8.271	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	8.271	-		-		-		-			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Space Control - Perform design, Development and sub-system integration	C/CPIF	Competitive Prototypes:CO, FL, PA	18.723	-		-		-		-	Continuing	Continuing	Continuing
Space Control - Perform sub-sytem risk reduction, testing, and validation	C/CPIF	2 X Competitive:Prototypes: CO, FL, PA	1.277	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	20.000	-		-		-		-			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Space Control - Government support and support contracts	C/FFPLOE	Program Management Office Functions:AL, CO	10.562	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	10.562	-		-		-		-			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603308A: *Army Space Systems Integration*	PROJECT 978: *SPACE CONTROL*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Space Control - Test & Evaluation Support	Various	Developmental and Operational Testing:Various	4.809	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	4.809	-		-		-		-			

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	43.642	-		-		-		-			

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603308A: *Army Space Systems Integration*	PROJECT 990: *Space and Missile Defense Integration*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
990: *Space and Missile Defense Integration*	15.231	9.763	9.876	-	9.876	11.648	11.163	9.988	16.115	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Project 990 funds United States Army Space and Missile Command/Army Strategic Command (USASMDC/ARSTRAT) efforts to develop, analyze and mature warfighting concepts, and conduct warfighting experiments for space and high altitude capabilities. The program also funds development and integration of new data sources and data services into the Joint Friendly Force Tracking Mission Management Center. The Mission Management Center (MMC) injects real-time Joint Friendly Force Tracking (J-FFT) information into the Common Operating Picture for Combatant Commands (COCOMs), Joint Task Forces (JTFs) and Coalition partners. USASMDC/ARSTRAT is the proponent for space / high altitude capabilities and is responsible for determining and integrating Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities (DOTMLPF) for the Army.

USSTRATCOM, in accordance with CJCSI 3910.01 (reference V.4.) is designated one of three coordinating agencies for J-FFT within DOD. CJCSI 3910.01 directs eight specified tasks to USSTRATCOM. USSTRATCOM SI 534-5 (reference V.6.) and annually published USSTRATCOM operations orders have designated USASMDC/ARSTRAT as the lead USSTRATCOM component command for J-FFT.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Architecture Development, Wargames and Demonstrations	-	-	5.723
Description: Funding is provided for the following effort ***FY 2013 Plans:*** Continue to plan, develop, and execute architectures and combat development solutions for Army integration of space systems, space control capabilities, missile defense and high altitude systems. Represent Army positions and defend Army equities relative in Joint/DoD and inter-Service activities; e.g., Executive Agent for Space Program Assessments, etc. Participate and provide support to wargames and experiments where space, high altitude, and missile defense capabilities and technologies can be integrated and evaluated in the most realistic operating environment possible. This is necessary to ensure that space and high altitude capabilities gaps are identified and capabilities are correctly represented, so that the Army uses of these capabilities are explored. Develop space modernization strategies and sponsor exploration of future space, high altitude, and missile defense warfighting concepts. The Future Warfare Center (FWC) will continue efforts to enhance the resiliency and effectiveness of critical space-based assets.			
Title: Space and High Altitude System Integration and Experimentation	-	2.421	-
Articles:		0	

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603308A: *Army Space Systems Integration*	PROJECT 990: *Space and Missile Defense Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Funding is provided for the following effort. ***FY 2012 Plans:*** Continue experimentation in support of operational responsive space. Complete migration of Space Operations System capabilities to both classified and unclassified Distributed Common Ground System - Army (DCGS-A) variants. The Future Warfare Center will continue efforts to enhance the resiliency and effectiveness of critical space-based assets.			
Title: Concept Development, Wargames and Demonstrations	15.231	4.240	-
Articles:	0	0	
Description: Funding is provided for the following effort ***FY 2011 Accomplishments:*** Participated in updates to Army Capstone, Operational and Functional Concepts involving Army systems and operations. Participated and provided support to all Unified Quest wargames and experiments to ensure that Space and High Altitude capabilities are correctly represented, and those issues with the Army's use of these capabilities are explored. ***FY 2012 Plans:*** Continue to plan, develop, and execute concepts and combat development solutions for Army integration of space systems, space control capabilities, missile defense and high altitude systems. Represent Army positions and defend Army equities relative in Joint/DoD and inter-Service activities; e.g., National Security Space Architect (NSSA) Program Assessments, etc. Participate and provide support to all Unified Quest and other wargames and experiments to ensure that space and high altitude capabilities gaps are identified and capabilities are correctly represented, so that the Army use of these capabilities are explored. Develop space modernization strategies and sponsor exploration of future space, high altitude, and missile defense warfighting concepts.			
Title: High Energy Laser Technolgy Program Support	-	-	0.785
Description: Funding is provided for the following effort. ***FY 2013 Plans:*** Continue to provide technical assistance and evaluation of integrated technologies and collection of lethality data with the Solid State Laster Testbed Experiment (SSLTE) against a variety of static and dynamic targets of interest to the Army, Navy, Air Force and Office Secretary of Defense (OSD), and develop tactics, techniques, and procedures (TTPs) in support of future fielding of High Energy Laser (HEL) weapon systems. Assist with the integration and evaluation of HEL technologies beginning with			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603308A: *Army Space Systems Integration*	PROJECT 990: *Space and Missile Defense Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Option 1 phase (25-50 kW hardware fabrication and test) of Robust Electric Laser Initiative (RELI) for integration onboard the High Energy Laser Mobile Demonstrator (HELMD) vehicle.			
Title: Joint Friendly Force Tracking (J-FFT) Testbed ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2012 Plans:*** The J-FFT Testbed will support specific task as directed by STRATCOM. These tasks include integrating new data sources, hardware and software devices, and data services into the J-FFT Mission Management Center (MMC). Continue to develop Friendly Force Tracking FFT capabilities for deployed and collation forces including Afghan National Forces. The Joint Friendly Force Tracking Division coordinates and executes USSTRATCOM-directed FFT tasks in order to assure continuous 24/7 FFT data services support to authorized users to include the Combatant Commands, the Services, agencies, allies, and coalition partners in order to improve their situational awareness (SA), enhance command and control (C2), and reduce fratricide in combat, homeland defense, civil and contingency operations. Additionally the J-FFT will be used to provide special tracking capabilities. ***FY 2013 Plans:*** As enhancements are made to network-enabled command and control systems and other systems are integrated into Combat Commanders friendly force tracking requirements the J-FFT Testbed will be used to integrate hardware and software prior to its deployment to the field. The FWC will continue to support development of FFT capabilities for deployed and collation forces. The Joint Friendly Force Tracking Division coordinates and executes USSTRATCOM-directed FFT tasks in order to assure continuous 24/7 FFT data services support to authorized users to include the Combatant Commands, the Services, agencies, allies, and coalition partners in order to improve their situational awareness (SA), enhance command and control (C2), and reduce fratricide in combat, homeland defense, civil and contingency operations.	- 0	3.102 0	3.368
Accomplishments/Planned Programs Subtotals	15.231	9.763	9.876

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Not applicable for this effort.

E. Performance Metrics

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603308A: *Army Space Systems Integration*	PROJECT 990: *Space and Missile Defense Integration*

Basic research projects lined to operations concepts or needs.
SMDC/ARSTRAT is developing critical enabling technologies.
Legacy or emerging systems have interoperability solutions identified.

F. Major Performer

BAE is under contract to develop software to support integration of new tracking data services into the J-FFT and support special tracking capabilities. This ensures 24/7 J-FFT data is available to support Combatant Commanders as coalition forces and technology change.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603308A: *Army Space Systems Integration*	PROJECT 990: *Space and Missile Defense Integration*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Enhancement of J-FFT	C/CPFF	Colorado Springs:Colorado	17.029	3.100		3.400		-		3.400	0.000	23.529	0.000
		Subtotal	17.029	3.100		3.400		-		3.400	0.000	23.529	0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GOVT SUPPORT & SUPPORT CONTRACTS	C/CPFF	Various in Colorado Springs CO, Washington DC, and Huntsville AL:Various	92.940	6.663		6.476		-		6.476	Continuing	Continuing	Continuing
		Subtotal	92.940	6.663		6.476		-		6.476			

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	109.969	9.763		9.876		-		9.876			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603308A: *Army Space Systems Integration*	PROJECT 990: *Space and Missile Defense Integration*

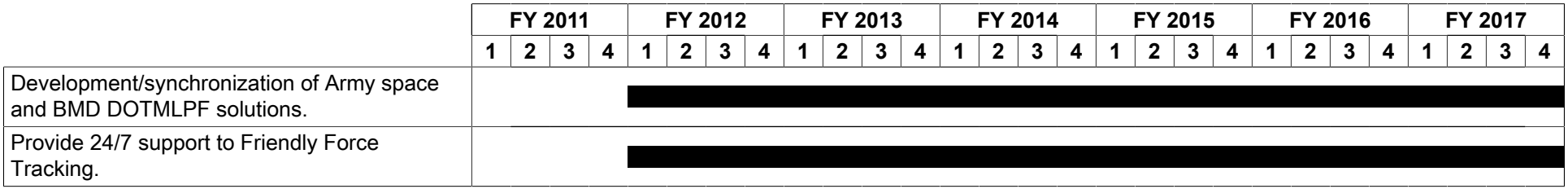

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603308A: *Army Space Systems Integration*	**PROJECT** 990: *Space and Missile Defense Integration*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Development/synchronization of Army space and BMD DOTMLPF solutions.	1	2012	4	2017
Provide 24/7 support to Friendly Force Tracking.	1	2012	4	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603619A: *Landmine Warfare and Barrier - Adv Dev*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	14.686	19.596	5.054	-	5.054	5.597	5.362	5.054	5.051	Continuing	Continuing
606: *CNTRMN/BARRIER ADV DEV*	14.686	19.596	5.054	-	5.054	5.597	5.362	5.054	5.051	Continuing	Continuing

Note

FY 2012: $16.090 million Congressional decrement.

FY 2013: Funds realigned to other higher priority requirements.

A. Mission Description and Budget Item Justification

This program element provides for advanced development of all landmine and counter landmine technologies. It also covers other close combat systems to include demolitions, grenades and pyrotechnics. Currently only one project line is funded: Project 606 - Countermine/Barrier Advanced Development. It provides for component development of new countermine systems for neutralizing, clearing, and detection concepts that will enhance the effectiveness of the Route Clearance Family of Systems Capabilities Development Document.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	15.596	35.383	22.114	-	22.114
Current President's Budget	14.686	19.596	5.054	-	5.054
Total Adjustments	-0.910	-15.787	-17.060	-	-17.060
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.356	-			
• SBIR/STTR Transfer	-0.464	-			
• Adjustments to Budget Years	-	-15.787	-17.060	-	-17.060
• Other Adjustments 1	-0.090	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603619A: *Landmine Warfare and Barrier - Adv Dev*	PROJECT 606: *CNTRMN/BARRIER ADV DEV*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
606: *CNTRMN/BARRIER ADV DEV*	14.686	19.596	5.054	-	5.054	5.597	5.362	5.054	5.051	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project enables component development of new counter explosive hazard systems that focus on detecting, marking, and neutralizing mines and Improvised Explosive Devices (IED). These capabilities will enhance the effectiveness of the Route Clearance Platoon within the Engineer Company, the Brigade Combat Team as well as other related Army missions. The Autonomous Mine Detection System (AMDS) provides stand-off detection for the dismounted soldier via the development of three payloads for an existing small robotic platform. The payloads are for surface laid and buried threat detection and marking, explosive hazards trace detection and marking, and neutralization. In FY2011, AMDS will continue tchnology development with component prototypes of each of the three payloads being developed. The Husky Mounted Detection System (HMDS) provides state of the art detection of surface laid and shallow buried explosive hazards, deep buried explosive hazard detection, and semi-autonomous operation in support of route clearance missions. HMDS is a mission equipment package mounted on HUSKY route clearance vehicles.

In FY2012, AMDS will continue technology development efforts with component prototypes of each of the three payloads being delivered for evaluation. These efforts will lead to a pre-Engineering and Manufacturing Development (EMD) in process review in 4QFY12 in preparation for EMD to begin in FY2013.

The Forward Reconnaissance and Explosive Hazard Detection (FREHD) system will provide a suite of modular payloads to enhance route clearance capabilities. In FY2013, FREHD system will begin transition of Advanced Technology Objective efforts from the Science and Technology community and conduct program initiation activities to a material development decision in 2QFY2013.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: AMDS	9.572	-	-
Articles:	0		
Description: Funding is provided for the following effort to build and test brassboards			
FY 2011 Accomplishments: Build and test AMDS Brassboards (8).			
Title: AMDS Brassboard Testing	3.628	-	-
Articles:	0		
Description: AMDS Brassboard Testing			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603619A: *Landmine Warfare and Barrier - Adv Dev*	PROJECT 606: *CNTRMN/BARRIER ADV DEV*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments: AMDS Brassboard Testing.			
Title: AMDS Mission Package Design and Development ***Articles:*** ***Description:*** AMDS Mission Package Design and Development ***FY 2012 Plans:*** AMDS -Build AMDS Detection Systems	-	10.067 0	-
Title: AMDS Platform Integration ***Articles:*** ***Description:*** AMDS Platform Integration ***FY 2012 Plans:*** AMDS Platform Integration	-	3.829 0	-
Title: AMDS Tech Demo, Operational Assessment and Test Report ***Articles:*** ***Description:*** AMDS Tech Demo, Operational Assessment and Test Report ***FY 2012 Plans:*** AMDS- Tech Demo, Operational Assessment and Test Report	-	5.200 0	-
Title: AMDS MS B Review Preparation ***Articles:*** ***Description:*** AMDS MS B Review Preparation ***FY 2012 Plans:*** AMDS MS B Review Preparation	-	0.500 0	-
Title: HMDS Material Development Decision and MS C Preparation ***Articles:*** ***Description:*** HMDS Material Development Decision and MS C Preparation	1.486 0	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603619A: *Landmine Warfare and Barrier - Adv Dev*	PROJECT 606: *CNTRMN/BARRIER ADV DEV*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments: HMDS Material Development Decision and MS C Preparation			
Title: Forward Reconnassiance and Explosive Hazard Detection (FREHD) ***Description:*** FREHD ***FY 2013 Plans:*** Preparing for MDD and transition to Advanced Development	-	-	5.054
Accomplishments/Planned Programs Subtotals	14.686	19.596	5.054

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• Mine Neutralization and Detection: *Mine Neutralization and Detection*	18.427	67.282	90.861		90.861		19.812	14.167	12.142	Continuing	Continuing

D. Acquisition Strategy

Autonomous Mine Detection System (AMDS) - The AMDS is currently in Technology Development effort and will be completed in FY2012. Development effort will occur leading to a transition from Concept Development (6.4) to Engineering Manufacturing Development (6.5).
Husky Mounted Detection System (HMDS) - The acquisition strategy for HMDS supports a competitive effort. System maturity will be high after combat fielding and real world mission accomplishment. Program will transition to MS B EMD in FY 2013.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603619A: *Landmine Warfare and Barrier - Adv Dev*	PROJECT 606: *CNTRMN/BARRIER ADV DEV*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Various	PM Close Combat Systems:Picatinny, NJ/ Ft Belvoir, VA	7.308	2.800		1.554		-		1.554	Continuing	Continuing	Continuing
Program Management Contractor Support	MIPR	FALCON:Fairfax, VA	1.670	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	8.978	2.800		1.554		-		1.554			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AMDS Tech Dev	TBD	To Be Selected:To Be Selected	33.264	10.529		-		-		-	Continuing	Continuing	Continuing
AMDS Other Component Development	Various	Various:Various	4.472	-		-		-		-	Continuing	Continuing	Continuing
FREHD	TBD	TBD:TBD	-	-		1.000		-		1.000	Continuing	Continuing	0.000
		Subtotal	37.736	10.529		1.000		-		1.000			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AMDS	MIPR	Various:Various	18.588	4.515		-		-		-	Continuing	Continuing	Continuing
Husky Mounted Detection System	MIPR	Various:Various	1.446	-		-		-		-	2.356	3.802	2.356
FREHD	MIPR	Various:TBD	-	-		2.500		-		2.500	0.000	2.500	0.000
		Subtotal	20.034	4.515		2.500		-		2.500			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603619A: *Landmine Warfare and Barrier - Adv Dev*	PROJECT 606: *CNTRMN/BARRIER ADV DEV*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AMDS	MIPR	Various:Various	0.520	1.752		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.520	1.752		-		-		-			

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	67.268	19.596		5.054		-		5.054			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603619A: *Landmine Warfare and Barrier - Adv Dev*	PROJECT 606: *CNTRMN/BARRIER ADV DEV*

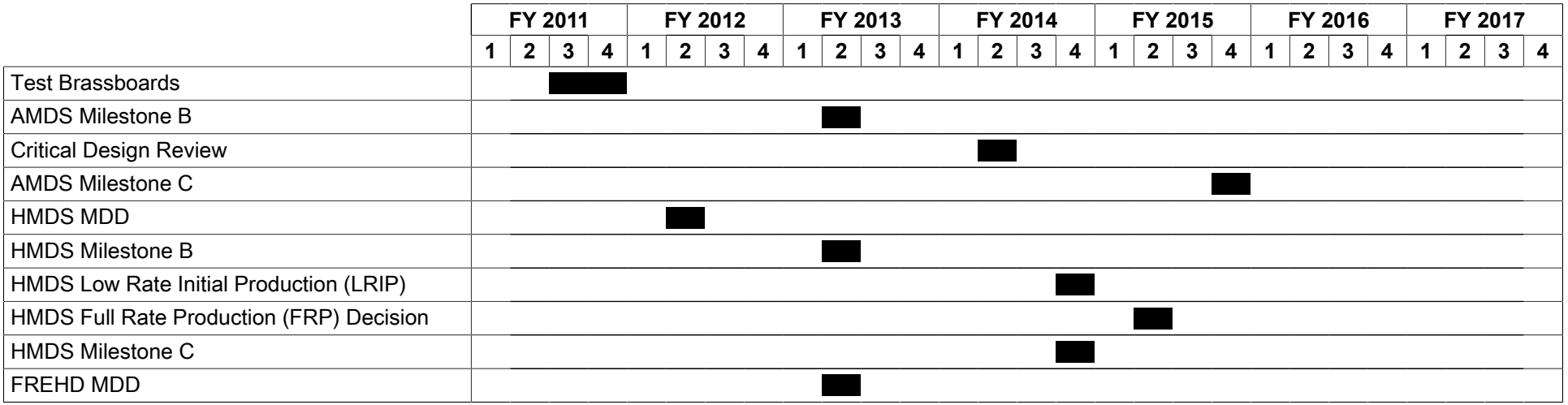

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603619A: *Landmine Warfare and Barrier - Adv Dev*	**PROJECT** 606: *CNTRMN/BARRIER ADV DEV*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Test Brassboards	3	2011	4	2011
AMDS Milestone B	2	2013	2	2013
Critical Design Review	2	2014	2	2014
AMDS Milestone C	4	2015	4	2015
HMDS MDD	2	2012	2	2012
HMDS Milestone B	2	2013	2	2013
HMDS Low Rate Initial Production (LRIP)	4	2014	4	2014
HMDS Full Rate Production (FRP) Decision	2	2015	2	2015
HMDS Milestone C	4	2014	4	2014
FREHD MDD	2	2013	2	2013

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 ITEM NOMENCLATURE PE 0603627A: *Smoke, Obscurant and Target Defeating Sys-Adv Dev*						
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	2.337	4.572	2.725	-	2.725	4.285	5.168	0.173	-	Continuing	Continuing
E79: *SMOKE/OBSCURANT SYSTEM*	2.337	4.572	2.725	-	2.725	4.285	5.168	0.173	-	Continuing	Continuing

Note

Change Summary Explanation: Funding - FY 13: Funds realigned to higher priority Army programs.

A. Mission Description and Budget Item Justification

Project supports Screening Obscuration Module (SOM) in the development and improvement of an array of obscurant agents, and devices to improve survivability of the combined armed forces, support extended range capability, complement combined weapon systems, and enhance force effectiveness and combat power. This program element supports critical management studies and analyses that are conducted on a continuing basis to ensure that Technology Development efforts are targeted against the emerging threat. US Forces must be able to effectively neutralize and degrade energy weapon systems and electro-optical systems/smart weapons that operate in the full range of the electromagnetic spectrum. Improvements are sought across the entire multi-spectral range from visual through infrared (IR) and millimeter wavelengths (MMW) radar for incorporation into self-protection using generated and launched smoke systems.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	2.425	9.501	4.589	-	4.589
Current President's Budget	2.337	4.572	2.725	-	2.725
Total Adjustments	-0.088	-4.929	-1.864	-	-1.864
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.073	-			
• Adjustments to Budget Years	-	-	-1.864	-	-1.864
• Other Adjustments 1	-0.015	-4.929	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603627A: *Smoke, Obscurant and Target Defeating Sys-Adv Dev*	PROJECT E79: *SMOKE/OBSCURANT SYSTEM*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
E79: *SMOKE/OBSCURANT SYSTEM*	2.337	4.572	2.725	-	2.725	4.285	5.168	0.173	-	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

Project supports Screening Obscuration Module (SOM), and Projected and Generated Obscuration Capability (PGOC), devices to improve survivability of the combined armed forces, support extended range capability, complement combined weapon systems, and enhance force effectiveness and combat power. SOM is a small smoke generator that degrades the visual through near infrared portion of the Electro-Magnetic Spectrum. PGOC will integrate an obscuration generator and grenade launcher(s) onto an unmanned platform to provide the capability of obscuring the Visual/IR spectrum.

This program element supports critical management studies and analysis that are conducted on a continuing basis to ensure that Technology Development efforts are targeted against the emerging threat. US Forces must be able to effectively neutralize and degrade energy weapon systems and electro-optical systems/smart weapons that operate in the full range of the electromagnetic spectrum. Improvements are sought across the entire multi-spectral range from visual through infrared (IR) and millimeter wavelengths (MMW) radar for incorporation into self-protection using generated and launched smoke systems.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: SOM Engineering and Modeling	0.622	0.929	0.400
Articles:	0	0	
Description: Engineering and Modeling for SOM systems. ***FY 2011 Accomplishments:*** Engineering and Modeling for SOM systems. ***FY 2012 Plans:*** Engineering and Modeling for SOM systems. ***FY 2013 Plans:*** Engineering and Modeling for SOM systems.			
Title: SOM Development.	1.715	2.186	1.846
Articles:	0	0	

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603627A: *Smoke, Obscurant and Target Defeating Sys-Adv Dev*	PROJECT E79: *SMOKE/OBSCURANT SYSTEM*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: SOM Development. ***FY 2011 Accomplishments:*** SOM Development. ***FY 2012 Plans:*** SOM Development. ***FY 2013 Plans:*** SOM Development.			
Title: Test and Evaluation of SOM systems. ***Articles:*** ***Description:*** Test and Evaluation of SOM systems. ***FY 2012 Plans:*** Test and Evaluation of SOM systems. ***FY 2013 Plans:*** Test and Evaluation of SOM systems.	- 	1.457 0	0.479
Accomplishments/Planned Programs Subtotals	2.337	4.572	2.725

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• SMOKE/OBSCURANT SYSTEM: *Project 200 Smoke, Obscurant and Target Defeating Sys - Eng Dev*	2.807									0.000	2.807
• Target Defeating System: *Project 198 Smoke, Obscurant and Target Defeating Sys - Eng Dev*	2.339									0.000	2.339

D. Acquisition Strategy

Acquisition Strategy: Development of PGOC and SOM systems to include design, construction, modeling and testing of prototypes.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603627A: *Smoke, Obscurant and Target Defeating Sys-Adv Dev*	PROJECT E79: *SMOKE/OBSCURANT SYSTEM*

PGOC acquisition strategy follows an evolutionary strategy with two increments. The first increment will integrate an obscuration generator and grenade launcher(s) onto an unmanned platform to provide the capability of obscuring the Visual/IR spectrum. The second increment will add the capability of obscuring the Millimeter Wave (MMW) spectrum to the obscuration generator. Award of two contracts for Competetive prototyping during TD phase. Development of two prototype designs, integration of grande launchers, robotic control packages onto already developed obscuration platforms (M56E1 and M56E2). Development of a government designed advanced grenade launcher.

SOM acquisition strategy is to develop a small smoke generator that degrades the visual through near infrared portion of the Electro-Magnetic Spectrum. SOM program will focus on replacing current smoke pots to provide the Joint Land Forces with a medium area screening obscuration device. The initial increment, Increment 1, will focus on developing a SOM system capable of obscuring the Visual through Near IR wavelengths of the electromagnetic spectrum. Future SOM Increments 2 and 3 will incorporate bi-spectral and multi-spectral effects. The SOM has the capability to quickly produce (less than 15 seconds) medium duration (20 minutes), medium area (11 meters wide x 20 meters length x 5.25 meters height) screening obscuration effects, screening an area equivalent to three times the size of a large combat vehicle. The individual Soldier or team will employ the SOM devices on open and complex terrain; excluding enclosed areas. SOM will be deployed to accomplish the following mission types: avoid observation, defense of a battle position, and assault position.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603627A: *Smoke, Obscurant and Target Defeating Sys-Adv Dev*	PROJECT E79: *SMOKE/OBSCURANT SYSTEM*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Personnel	MIPR	JPM:NBCCA	3.538	0.929		0.479		-		0.479	Continuing	Continuing	Continuing
		Subtotal	3.538	0.929		0.479		-		0.479			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOM Hardware Development	C/CPFF	TBD:TBD	18.870	2.186		1.846		-		1.846	Continuing	Continuing	Continuing
		Subtotal	18.870	2.186		1.846		-		1.846			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Modeling and Studies SOM	MIPR	Edgewood Chemical Biological Center:Edgewood, Md	1.964	0.100		0.400		-		0.400	Continuing	Continuing	Continuing
		Subtotal	1.964	0.100		0.400		-		0.400			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOM Test & Evaluation	MIPR	OGA Various:Various	-	1.357		-		-		-	Continuing	Continuing	Continuing
		Subtotal	-	1.357		-		-		-			

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	24.372	4.572		2.725		-		2.725			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603627A: *Smoke, Obscurant and Target Defeating Sys-Adv Dev*	PROJECT E79: *SMOKE/OBSCURANT SYSTEM*	

	Total Prior Years Cost	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603627A: *Smoke, Obscurant and Target Defeating Sys-Adv Dev*	**PROJECT** E79: *SMOKE/OBSCURANT SYSTEM*

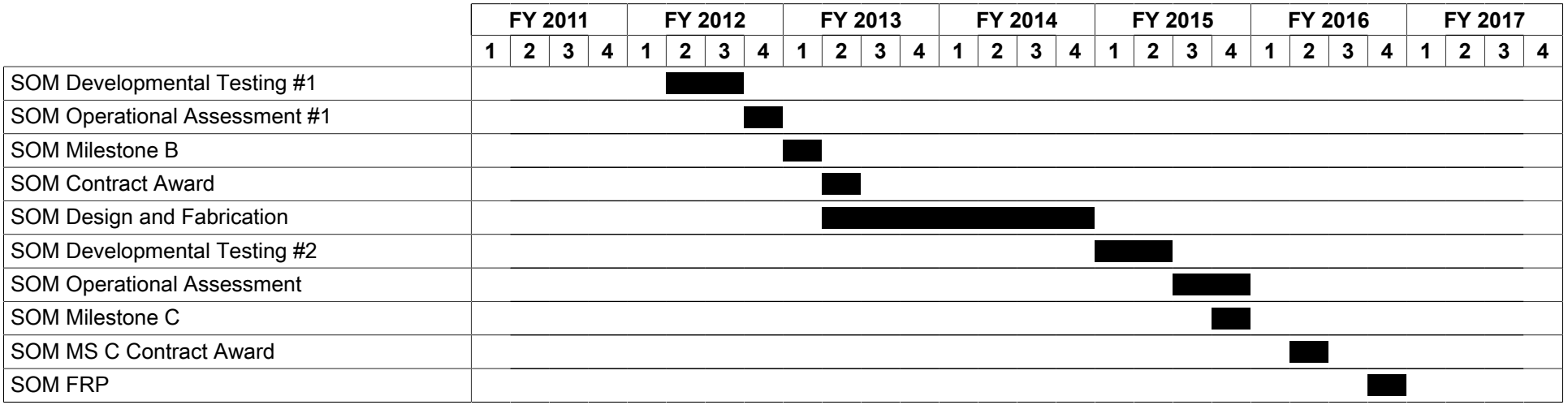

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603627A: *Smoke, Obscurant and Target Defeating Sys-Adv Dev*	**PROJECT** E79: *SMOKE/OBSCURANT SYSTEM*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
SOM Developmental Testing #1	2	2012	3	2012
SOM Operational Assessment #1	4	2012	4	2012
SOM Milestone B	1	2013	1	2013
SOM Contract Award	2	2013	2	2013
SOM Design and Fabrication	2	2013	4	2014
SOM Developmental Testing #2	1	2015	2	2015
SOM Operational Assessment	3	2015	4	2015
SOM Milestone C	4	2015	4	2015
SOM MS C Contract Award	2	2016	2	2016
SOM FRP	4	2016	4	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603639A: *Tank and Medium Caliber Ammunition*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	35.849	40.314	30.560	-	30.560	19.812	7.083	-	-	Continuing	Continuing
652: *M829E4 120mm Cartridge*	35.849	40.314	30.560	-	30.560	19.812	7.083	-	-	Continuing	Continuing

Note

FY 2011: $5.0 million Congressional decrement.

FY 2013: Funds were realigned to other higher priority requirements.

A. Mission Description and Budget Item Justification

The Direct Fire Advanced Technology (DFAT) Program Element (PE) encompasses a comprehensive program to develop, rapidly transition to production, and field advanced tank, medium and small caliber munitions. These programs will ensure continued battlefield overmatch and lethality of U.S. maneuver forces despite worldwide development and proliferation of enhanced armored vehicle protection technologies. To achieve this, DFAT will identify and develop promising technologies through competitive development and streamlined acquisition procedures. All ammunition development funds within this PE are managed to facilitate transitions between phases, avoid administrative delays, and focus resources on the most promising areas.

The M829E4 cartridge is an unguided, direct fire, platform-delivered Line of Sight (LOS) munition that will provide fast response lethality to rapidly destroy threat targets with Explosive Reactive Armor (ERA) and Active Protection Systems (APS) in the close fight from 0-2km (T) and to 0-4km (O). The M829E4 will be compatible with the 120mm Current Force Abrams Main Battle Tank. FY 2011 M829E4 AKE Cartridge funding supports the completion of Engineering and Manufacturing Development (EMD) Phase I and Phase II initiation of the M829E4. FY 2012 funding supports design finalization, design verification, testing and fabrication of Design, Test and Evaluation hardware and beginning of testing. FY 2013 will feature building of test hardware for final qualification testing.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army					DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*		R-1 ITEM NOMENCLATURE PE 0603639A: *Tank and Medium Caliber Ammunition*			
B. Program Change Summary ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**
Previous President's Budget	42.183	39.693	47.208	-	47.208
Current President's Budget	35.849	40.314	30.560	-	30.560
Total Adjustments	-6.334	0.621	-16.648	-	-16.648
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.106	-			
• Adjustments to Budget Years	-5.000	0.621	-16.648	-	-16.648
• Other Adjustments 1	-0.228	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603639A: *Tank and Medium Caliber Ammunition*	PROJECT 652: *M829E4 120mm Cartridge*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
652: *M829E4 120mm Cartridge*	35.849	40.314	30.560	-	30.560	19.812	7.083	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The M829E4 cartridge is a platform-delivered Line of Sight (LOS) munition that will provide capability for the current force Heavy Brigade Combat Team's (HBCT) commander to conduct decisive operations and destroy current and future enemy Main Battle Tanks (MBTs) equipped with Explosive Reactive Armor (ERA) and Active Protection Systems (APS) at ranges from 0-2km (T) and 0-4km (O). The M829E4 will provide the capability to destroy and or neutralize the adversary armor and capabilities. After a competitive shoot off in FY 2011 ATK was awarded the option to continue EMD Phase II until its conclusion in FY 2014. FY 2012 supports the continuation of Phase II of the M829E4 cartridge Engineering and Manufacturing Development (EMD). FY 2013 funding supports design finalization, design verification, fabrication and testing of Design, Test and Evaluation hardware. The full performance of the M829E4 is obtained with an Ammuntion Data Link breech modification firing from the Abrams equipped tank.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Phase I Engineering and Manufacturing Development (EMD) ***Articles:*** ***Description:*** Funding is provided for the following effort: ***FY 2011 Accomplishments:*** Complete Phase I with shoot off and down select to one prime contractor.	3.661 0	-	-
Title: Demonstration Test ***Articles:*** ***Description:*** Funding is provided for the following effort: ***FY 2011 Accomplishments:*** The demonstration test is a competitive shoot-off between the two contractors. This test is conducted by the Government in which	6.188 0	-	-
Title: Phase II EMD ***Articles:*** ***Description:*** Funding is provided for the following effort: ***FY 2011 Accomplishments:***	26.000 0	30.000 0	20.500

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603639A: *Tank and Medium Caliber Ammunition*	PROJECT 652: *M829E4 120mm Cartridge*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Phase II of EMD which occurred after the down select, a single design was matured, analyzed, tested and evaluated to insure all requirements were met/ exceeded. Testing focused on the highest risks. Establishment and planning for qualification was included. Detailed safety and performance tests were conducted, and the subsystem designs were optimized for performance. ***FY 2012 Plans:*** Continuing Phase II of EMD in which the design will be optimized and a preliminary Technical Data Package (TDP) established. The design will be further tested, and refined. Process maps and TDP documentation will be prepared. Hardware for a Design Evaluation Test (DET) test will also be fabricated and DT&E test hardware/ components will be procured and initiate (Load Assembled Pack) LAP of DET cartridges. ***FY 2013 Plans:*** Continuing in Phase II of EMD, the design will be finalized, tested and evaluated to insure all requirements are met/ exceeded. Cartridges will be fabricated for DT&E testing, operational tests and live fire testing. A Technical Data Package (TDP) will be revised and a detailed specification shall be assembled. Production manufacturing fixtures and subsystem test equipment will be established and qualified.			
Title: Design Evaluation Testing ***Articles:*** ***Description:*** Funding is provided for the following effort: ***FY 2012 Plans:*** Design Evaluation testing (DET) is an interim test of the finalized design prior to the build of the DT&E. This includes the test and analysis activities leading to DT&E. Analysis includes complete systems analysis with the use of modeling and simulation tools. DET is a risk reduction test to quantify performance of the design prior to the design freeze at a Critical Design review (CDR) at the end of FY 2012.	-	4.184 0	-
Title: Developmental Test & Evaluation (DT&E) ***Articles:*** ***Description:*** Funding is provided for the following effort: ***FY 2012 Plans:*** The Development Test & Evaluation covers the build and test at the conclusion of EMD which is of a single design. The capability is demonstrated and performance against the performance specification quantified. The data and evaluation of this test support milestone C and Type Classified - Standard (TC-STD) decisions. Documentation for these milestones will be generated and compiled. Tests consist of a battery of safety, performance tests to assure army requirements are met/ exceeded. During FY	-	6.130 0	10.060

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603639A: *Tank and Medium Caliber Ammunition*	PROJECT 652: *M829E4 120mm Cartridge*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
2012 the planning and manufacturing of special test fixtures & equipment will be fabricated/ procured for testing and subsequent qualification. ***FY 2013 Plans:*** The Development Test & Evaluation (DT&E) is the testing and analysis at the conclusion of EMD. A single design will undergo a battery of tests in which the capability is proven/ demonstrated, performance quantified. This covers the Test and Evaluation, the analysis of the results and the documentation that supports Milestone C and the TC-STD . Testing includes safety, survivability, armor testing, insensitive munitions, ballistic testing, noise, toxic fumes, and terminal impact dispersion/ accuracy tests. This effort also includes the live fire tests, user excursion tests and Stationary Ammunition accuracy testing.			
Accomplishments/Planned Programs Subtotals	35.849	40.314	30.560

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• Advanced Kinetic Energy: *Advanced Kinetic Energy (AKE)*							36.788			Continuing	Continuing

D. Acquisition Strategy

The M829E4, Advanced Kinetic Energy cartridge is at Technology Readiness Level 6 (TRL6). The Milestone B Decision was obtained in 4Q FY 2009, and the program entered Engineering and Manufacturing Development (EMD) in FY 2010. EMD consists of two phases; the Phase I contract was awarded in 2Q FY 2010 and the Phase II contract was awarded in 3Q FY 2011. During Phase I (15 months), the Government awarded two separate Cost Plus Fixed Fee (CPFF) contracts culminating in a demonstration test and competitive source selection to down select to one contractor for the 31 month Cost Plus Incentive Fee (CPIF) Phase II. The down select was based on the demonstrated performance of the cartridge design, proposed systems engineering and management approach for Phase II, and the total program cost estimate for each contractor at the time of the demonstration test. ATK was awarded the option to continue EMD Phase II until its conclusion in FY 2014. Upon successful completion of Milestone C, a Low Rate Initial Production (LRIP) option will be awarded to ATK in 3Q FY 2014. The contract will also contain options for two additional production years. All production options are Firm Fixed Price (FFP).

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603639A: *Tank and Medium Caliber Ammunition*	PROJECT 652: *M829E4 120mm Cartridge*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ATK Phase II	C/CPIF	ATK:Minnesota	102.500	30.000		20.500		-		20.500	Continuing	Continuing	Continuing
PM-MAS	MIPR	PM-MAS Picatinny Arsenal:NJ	2.930	1.000		1.000		-		1.000	Continuing	Continuing	Continuing
GD-OTS Phase 1	C/CPFF	GD-OTS:St.Petersburg, FL	2.068	-		-		-		-	0.000	2.068	0.000
ATK Phase 1	C/CPFF	ATK:Minnesota	5.254	-		-		-		-	0.000	5.254	0.000
		Subtotal	112.752	31.000		21.500		-		21.500			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ARDEC	MIPR	Picatinny:New Jersey	8.432	2.400		2.200		-		2.200	Continuing	Continuing	Continuing
		Subtotal	8.432	2.400		2.200		-		2.200			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Aberdeen Proving Ground	MIPR	APG:Aberdeen, MD	5.860	2.000		2.360		-		2.360	Continuing	Continuing	Continuing
YPG	MIPR	YUMA:YUMA, AZ	6.321	1.930		2.000		-		2.000	Continuing	Continuing	Continuing
ATEC	MIPR	ATEC:Aberdeen, MD	0.300	0.100		0.200		-		0.200	Continuing	Continuing	Continuing
Watervliet	MIPR	Watervliet:Troy, NY	0.534	0.334		0.200		-		0.200	0.000	1.068	0.000
JMC	MIPR	JMC:Rock Island, IL	1.350	0.750		0.600		-		0.600	Continuing	Continuing	Continuing
Army Research Lab	MIPR	ARL:Aberdeen, Maryland	7.014	1.800		1.500		-		1.500	Continuing	Continuing	Continuing
		Subtotal	21.379	6.914		6.860		-		6.860			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603639A: *Tank and Medium Caliber Ammunition*	PROJECT 652: *M829E4 120mm Cartridge*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	142.563	40.314		30.560		-		30.560			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603639A: *Tank and Medium Caliber Ammunition*	**PROJECT** 652: *M829E4 120mm Cartridge*

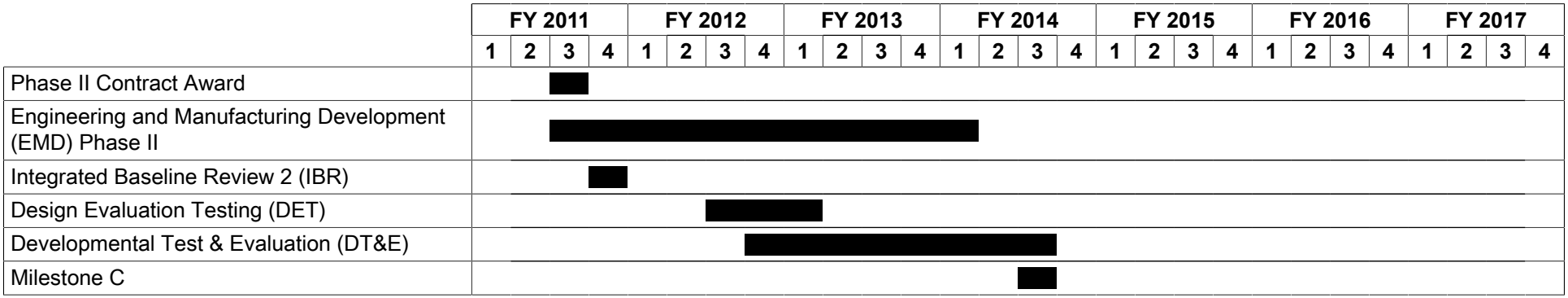

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603639A: *Tank and Medium Caliber Ammunition*	**PROJECT** 652: *M829E4 120mm Cartridge*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Phase II Contract Award	3	2011	3	2011
Engineering and Manufacturing Development (EMD) Phase II	3	2011	1	2014
Integrated Baseline Review 2 (IBR)	4	2011	4	2011
Design Evaluation Testing (DET)	3	2012	1	2013
Developmental Test & Evaluation (DT&E)	4	2012	3	2014
Milestone C	3	2014	3	2014

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	200.312	64.408	14.347	-	14.347	5.820	-	-	-	Continuing	Continuing
C03: *INTERIM ARMORED VEHICLE (IAV) FAMILY*	5.633	22.500	14.347	-	14.347	5.820	-	-	-	Continuing	Continuing
C51: *STRYKER MODERNIZATION*	64.679	41.908	-	-	-	-	-	-	-	Continuing	Continuing
VT2: *STRYKER DOUBLE V*	130.000	-	-	-	-	-	-	-	-	Continuing	Continuing

Note

FY2011: Project VT2 - DVH, increase $128.0M; Project C51 - Stryker Modernization, -$57.0M, Milestone B delay

FY2012: Project C03 - Stryker Vehicle, - $37.0M, Program growth adjustment

FY2013: Project C51 - Stryker Modernization, Program eliminated

A. Mission Description and Budget Item Justification

This Program Element (PE) supports the development of the Stryker Family of vehicles (FOV) in three separate projects:

The Interim Amored Vehicle Project (C03) supports the use of the common platform/common chassis design reducing requirements for repair parts and logistics support in the area of operations. Funding in this project will continue to address Overseas Contingency Operations (OCO), survivability, Operational Needs Statements (ONS) issues, and integrating Targeting Under Armor (TUA) for the Stryker Fire Support Vehicle (FSV).

Stryker Modernization Project (C51) will enable the Stryker FOV (to include DVH) to host the future network without further degrading vehicle performance. The upgrade will increase available electrical power while ensuring adequate mechanical power, weight margin, and cooling. Combined with a digital backbone, this will ensure the FOV can host the future network while retaining its protection and mobility.

Stryker Double V Hull (DVH) Project (VT2) was established in FY 10. The DVH design is in response to a G-3 directed requirement for survivability enhancements on Stryker vehicles used in Operation Enduring Freedom to provide a total integrated solution of increased protection and survivability against Improvised Explosive Devices (IED). DVH will be fielded as Theater Provided Equipment (TPE) and support deployments of Stryker Brigade Combat Teams (SBCT's) to Afghanistan.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army					DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*		R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*			
B. Program Change Summary ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**
Previous President's Budget	136.302	101.408	219.548	-	219.548
Current President's Budget	200.312	64.408	14.347	-	14.347
Total Adjustments	64.010	-37.000	-205.201	-	-205.201
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-6.179	-			
• Other Adjustments 1	70.189	-37.000	-205.201	-	-205.201

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT C03: *INTERIM ARMORED VEHICLE (IAV) FAMILY*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
C03: *INTERIM ARMORED VEHICLE (IAV) FAMILY*	5.633	22.500	14.347	-	14.347	5.820	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

The Interim Armored Vehicle (IAV) Family Project (C03) supports the development of the Stryker Family of vehicles (FOV). A critical need exists to improve the deployability and operational effectiveness of rapid response/early entry forces. The Stryker equipped Brigade Combat Team (BCT) is capable of deployment to anywhere on the globe in a combat ready configuration. Immediate response by a lethal, versatile, tactically agile joint force capable of operational maneuver once in the Area of Operations has been essential in fulfilling the warfighting needs of the U. S. Army. The Stryker family includes: Infantry Carrier Vehicle (ICV), Reconnaissance Vehicle (RV), Mobile Gun System (MGS), Mortar Carrier (MC), Commander's Vehicle (CV), Fire Support Vehicle (FSV), Engineer Squad Vehicle (ESV), Medical Evacuation Vehicle (MEV), Anti-Tank Guided Missile Vehicle (ATGM), and Nuclear/Biological/Chemical Reconnaissance Vehicle (NBCRV). The use of the common platform/common chassis design reduces requirements for repair parts and logistics support in the area of operations. Funding in this project will continue to address Overseas Contingency Operations (OCO), survivability, Operational Needs Statements (ONS) issues, and integration of Targeting Under Armor (TUA)on the Stryker FSV.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Development Engineering	-	21.839	5.424
Articles:		0	
Description: Funding is provided for the following effort			
FY 2012 Plans: Undergo development and engineering for integration of Targeting Under Armor for the Stryker FSV.			
FY 2013 Plans: Undergo development and engineering for integration of Targeting Under Armor for the Stryker FSV.			
Title: Test Vehicle Refurbishment	4.155	-	-
Articles:	0		
Description: Funding is provided for			
FY 2011 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Refurbishment of MGS tested vehicles			
Title: Government Engineering and Program Management	0.156	0.661	0.672
Articles:	0	0	
Description: Funding is provided for the following effort ***FY 2011 Accomplishments:*** Continuing Government Systems Engineering and Program Management ***FY 2012 Plans:*** Funding for future Government Systems Engineering and Program Management ***FY 2013 Plans:*** Funding for future Government Systems Engineering and Program Management			
Title: Contractor Support to Test	-	-	1.293
Description: Funding is provided for: ***FY 2013 Plans:*** Contractor Support to TUA test			
Title: Test and Evaluation	1.322	-	6.958
Articles:	0		
Description: Funding is provided for the following effort ***FY 2011 Accomplishments:*** SRAT II Testing ***FY 2013 Plans:*** Targeting Under Armor Testing			
Accomplishments/Planned Programs Subtotals	5.633	22.500	14.347

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• GM0100: *Stryker MOD (GM0100)*	84.573	51.497	60.881		60.881		71.575	76.718	77.422	466.065	950.213

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT C03: *INTERIM ARMORED VEHICLE (IAV) FAMILY*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• G85100: *Stryker Vehicle (G85100)*	1,386.014	606.984	286.818		286.818		74.466			3,601.376	6,055.045
• GE0180: *Spares and Repair Parts (WTCV) (GE0180)*		99.624	31.217		31.217					0.000	130.841

D. Acquisition Strategy

Funding continues engineering and development efforts related to Overseas Contingency Operations (OCO), survivability, and Operational Needs Statements (ONS) issues, and integration of Targeting Under Armor. As the Stryker family of vehicles continues to be deployed, we will explore, enhance and increase the survivability of the Stryker.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT C03: *INTERIM ARMORED VEHICLE (IAV) FAMILY*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Office (PMO)	Various	TACOM,:MI	15.338	0.661		0.672		-		0.672	0.684	17.355	0.000
		Subtotal	15.338	0.661		0.672		-		0.672	0.684	17.355	0.000

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Stryker Development/ Engineering	Various	GDLS:MI	408.071	-		-		-		-	0.000	408.071	0.000
Targeting Under Armor Development /Engineering	Various	GDLS:MI	-	21.839		5.424		-		5.424	1.688	28.951	0.000
		Subtotal	408.071	21.839		5.424		-		5.424	1.688	437.022	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Support to Test	Various	GDLS:MI	1.322	-		1.293		-		1.293	0.406	3.021	0.000
Targeting Under Armor Testing	Various	Various Test Centers:Multiple	-	-		6.958		-		6.958	3.042	10.000	0.000
Test Vehicle Refurbishment	Various	GDLS MI:MI	4.155	-		-		-		-	0.000	4.155	0.000
NBCRV Operational Test and Evaluation	Various	Various Test Centers:Various	111.751	-		-		-		-	0.000	111.751	0.000
OCO and SRAT II Testing	Various	Various Test Centers:Various	7.521	-		-		-		-	0.000	7.521	0.000
Contractor Support to Test	Various	GDLS, MI:MI	23.144	-		-		-		-	0.000	23.144	0.000
		Subtotal	147.893	-		8.251		-		8.251	3.448	159.592	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT C03: *INTERIM ARMORED VEHICLE (IAV) FAMILY*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	571.302	22.500		14.347		-		14.347	5.820	613.969	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT C03: *INTERIM ARMORED VEHICLE (IAV) FAMILY*

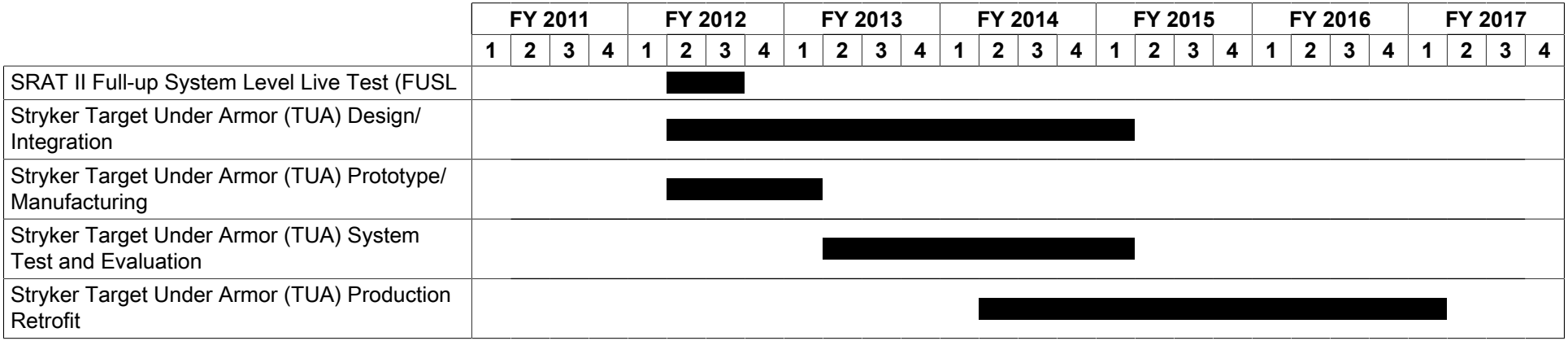

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	**PROJECT** C03: *INTERIM ARMORED VEHICLE (IAV) FAMILY*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
SRAT II Full-up System Level Live Test (FUSL	2	2012	3	2012
Stryker Target Under Armor (TUA) Design/Integration	2	2012	1	2015
Stryker Target Under Armor (TUA) Prototype/Manufacturing	2	2012	1	2013
Stryker Target Under Armor (TUA) System Test and Evaluation	2	2013	1	2015
Stryker Target Under Armor (TUA) Production Retrofit	2	2014	1	2017

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT C51: *STRYKER MODERNIZATION*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
C51: *STRYKER MODERNIZATION*	64.679	41.908	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Stryker Modernization (C51) will enable the Stryker FOV (to include DVH) to host the future network without further degrading vehicle performance. The upgrade will increase available electrical power while ensuring adequate mechanical power, weight margin, and cooling. Combined with a digital backbone, this will ensure the FOV can host the future network while retaining its protection and mobility.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Development and Design Engineering	61.184	34.382	-
Articles:	0	0	
Description: Funding is provided for the following efforts			
FY 2011 Accomplishments: Stryker upgrade to allow integration of the future Network without additional degradation to overall system performance.			
FY 2012 Plans: Continued Stryker upgrade to allow integration of the future Network without additional degradation to overall system performance.			
Title: Government Engineering and Program Management	3.495	7.526	-
Articles:	0	0	
Description: Funding is provided for the following effort			
FY 2011 Accomplishments: Continuing Government Systems Engineering and Program Management			
FY 2012 Plans: Continuing Government Systems Engineering and Program Management			
Accomplishments/Planned Programs Subtotals	64.679	41.908	-

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT C51: *STRYKER MODERNIZATION*

D. Acquisition Strategy

The Stryker upgrade effort is to buy back the vehicle space, weight, and power margin lost due to the addition of numerous kits in response to nine years of war (15-combat rotations & 27 million total miles), in order to allow integration of the future network (as directed by VCSA in August 2011) without further degrading the performance of the platform.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT C51: *STRYKER MODERNIZATION*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Office (PMO)	Various	TACOM:MI	6.877	7.526		-		-		-	0.000	14.403	0.000
		Subtotal	6.877	7.526		-		-		-	0.000	14.403	0.000

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Stryker Upgrade Development/Engineering ModernizatiDeficiencies	Various	GDLS:MI	274.917	34.382		-		-		-	0.000	309.299	0.000
		Subtotal	274.917	34.382		-		-		-	0.000	309.299	0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Government Agencies	Various	Various:Various	0.714	-		-		-		-	0.000	0.714	0.000
		Subtotal	0.714	-		-		-		-	0.000	0.714	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Stryker Upgrade Testing	Various	Various:Various	0.387	-		-		-		-	0.000	0.387	0.000
		Subtotal	0.387	-		-		-		-	0.000	0.387	0.000

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	282.895	41.908		-		-		-	0.000	324.803	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT C51: *STRYKER MODERNIZATION*	

	Total Prior Years Cost	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT C51: *STRYKER MODERNIZATION*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Army System Acquisition Review Counsel (ASARC)						■																						

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	**PROJECT** C51: *STRYKER MODERNIZATION*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Army System Acquisition Review Counsel (ASARC)	2	2012	2	2012

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT VT2: *STRYKER DOUBLE V*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
VT2: *STRYKER DOUBLE V*	130.000	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Stryker Double V Hull (DVH) Project (VT2) was established in FY 10. The Double V Hull design is in response to a G-3 directed requirement for survivability enhancements on Stryker vehicles used in Operation Enduring Freedom to provide a total integrated solution of increased protection and survivability against Improvised Explosive Devices (IED). DVH will be fielded as Theater Provided Equipment (TPE) and support deployments of SBCT's to Afghanistan.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Development and Test Support	104.852	-	-
Articles:	0		
Description: Funding is provided for the following effort			
FY 2011 Accomplishments: The design and development engineering of the Stryker Double V Hull and test support			
Title: Government Test	24.112	-	-
Articles:	0		
Description: Funding is provided for the following effort			
FY 2011 Accomplishments: Continuing Government testing of the Double V Hull			
Title: Government Engineering and Program Management	1.036	-	-
Articles:	0		
Description: Funding is provided for the following effort			
FY 2011 Accomplishments: Contininuing Government Engineering and Program Management			
Accomplishments/Planned Programs Subtotals	130.000	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT VT2: *STRYKER DOUBLE V*

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Funding for design and development engineering along with testing efforts related to the Double V Hull, which supports survivability enhancements for the Stryker vehicles against Improvised Explosive Devices (IED).

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	PROJECT VT2: *STRYKER DOUBLE V*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Office (PMO)	Various	TACOM, MI:Various	1.036	-		-		-		-	0.000	1.036	0.000
		Subtotal	1.036	-		-		-		-	0.000	1.036	0.000

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development and Test Support	Various	GDLS:MI	104.852	-		-		-		-	0.000	104.852	0.000
		Subtotal	104.852	-		-		-		-	0.000	104.852	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Testing	Various	Various Test Centers:Various	24.112	-		-		-		-	0.000	24.112	0.000
		Subtotal	24.112	-		-		-		-	0.000	24.112	0.000

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	130.000	-		-		-		-	0.000	130.000	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	**PROJECT** VT2: *STRYKER DOUBLE V*

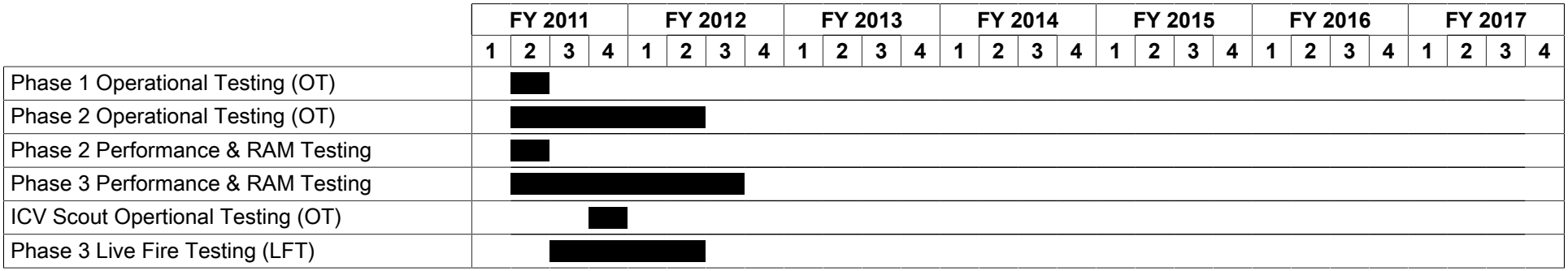

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603653A: *ADVANCED TANK ARMAMENT SYSTEM (ATAS)*	**PROJECT** VT2: *STRYKER DOUBLE V*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Phase 1 Operational Testing (OT)	2	2011	2	2011
Phase 2 Operational Testing (OT)	2	2011	2	2012
Phase 2 Performance & RAM Testing	2	2011	2	2011
Phase 3 Performance & RAM Testing	2	2011	3	2012
ICV Scout Opertional Testing (OT)	4	2011	4	2011
Phase 3 Live Fire Testing (LFT)	3	2011	2	2012

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603747A: *Soldier Support and Survivability*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	74.847	13.903	10.073	19.860	29.933	11.051	10.965	10.280	10.453	Continuing	Continuing
610: *FOOD ADV DEVELOPMENT*	4.085	3.903	4.014	-	4.014	4.624	4.657	4.343	4.416	Continuing	Continuing
C08: *RAPID EQUIPPING FORCE*	22.762	10.000	6.059	19.860	25.919	6.427	6.308	5.937	6.037	Continuing	Continuing
C09: *SOLDIER SUPPORT EQUIPMENT - AD*	48.000	-	-	-	-	-	-	-	-	Continuing	Continuing

Note

Change Summary Explanation: FY13 OCO in the amount of $19860 supports PEO Soldier.

A. Mission Description and Budget Item Justification

This program element supports component development and prototyping for organizational equipment, improved individual clothing and equipment that enhance Soldier battlefield effectiveness, survivability, and sustainment. This program element also supports the component development and prototyping of joint service food and combat feeding equipment designed to reduce logistics burden.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	76.456	9.747	9.965	-	9.965
Current President's Budget	74.847	13.903	10.073	19.860	29.933
Total Adjustments	-1.609	4.156	0.108	19.860	19.968
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• FY11 OCO Request	-1.609	4.156	0.108	19.860	19.968

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603747A: *Soldier Support and Survivability*	PROJECT 610: *FOOD ADV DEVELOPMENT*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
610: *FOOD ADV DEVELOPMENT*	4.085	3.903	4.014	-	4.014	4.624	4.657	4.343	4.416	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project provides for the advanced component development and prototyping of joint service food and combat feeding equipment designed to reduce the logistics burden and Operation and Support (O&S) costs of subsistence support to service personnel. Project supports development of rations and rapidly deployable field food service equipment. Project conducts demonstration and validation of improved subsistence and subsistence support items used to enhance soldier effectiveness and quality of life in all four Services, as part of an integrated Department of Defense (DoD) Food Research, Development, Test, Evaluation and Engineering Program. The Program is reviewed and validated twice annually by the DoD Combat Feeding Research and Engineering Board (CFREB) as part of the Joint Service Food Program. This project develops critical enablers that support the Joint Future Force Capabilities and the Joint expeditionary mindset by maintaining readiness through fielding and integrating new equipment. This equipment enhances the field soldier's well-being and provides the soldier with usable equipment, in addition to reducing sustainment requirements, related Combat Support/Combat Service Support (CS/CSS) demands on lift, combat zone footprint, and costs for logistical support.

This PE/Project supports Field Feeding Programs for all the services.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: Solar Power Refrigeration	0.189	-	-	-	-
Articles:	0				
Description: Provides a mechanical sub cooler that will increase the operational temperature limit, reduce fuel consumption and decrease electrical draw. The reduction in the refrigeration unit's electrical draw makes it a better candidate for incorporation of operational energy initiatives and alternative energy power sources to include solar power.					
FY 2011 Accomplishments: Transition Solar Refrigeration Technology from Science and Technology (S&T) to system development phase. Prepare solicitation for prototype. Fabricate prototype for evaluation and transition to System Development and Demonstration.					
Title: Solid Waste Remediation	0.290	0.100	-	-	-
Articles:	0	0			
Description: Provides environmentally friendly incineration system for solid waste.					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603747A: *Soldier Support and Survivability*	PROJECT 610: *FOOD ADV DEVELOPMENT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
FY 2011 Accomplishments: Review and validate requirements outlined in the Capability Production Document (CPD) with Combined Arms Support Command (CASCOM) and Joint Service Community. Establish design and evaluation criteria to meet desired capability. Procure prototypes for evaluation. ***FY 2012 Plans:*** Evaluate solid waste remediation hardware/systems and transition into System Development and Demonstration.					
Title: Modular Appliances for Field Feeding ***Articles:*** ***Description:*** Provide a suite of common, man portable, highly efficient, closed combustion, thermostatically controlled appliances for use across the spectrum of field feeding and base camp operations. ***FY 2011 Accomplishments:*** Prepare solicitation for prototype and award contract. Initiate fabrication of prototype and initiate Developmental Testing (DT). Transition to Containerized Kitchen modernization System Development and Demonstration effort.	0.423 0	-	-	-	-
Title: Fielded Individual Ration Improvement Project (FIRIP) ***Articles:*** ***Description:*** Continuous product improvement project for the Meal, Ready to Eat (MRE) ***FY 2011 Accomplishments:*** Continue to identify suitable Commercial Off-The Shelf/Non-Development Item (COTS/NDI) candidate items and conduct in-house product development of food components for fielded individual operational rations (MRE 2013/2014 Date of Pack (DOP)) to enhance acceptability, increase consumption and improve nutritional intake. Conduct pilot scale in-house production to support engineering design, technology insertion, and producibility. Work with vendors and assemblers as needed to ensure feasibility and technology transition. Develop, integrate, and validate state-of-the-art science and technology, food processing and primary/secondary packaging innovations into individual ration platforms to increase operational effectiveness, functionality and improve logistics. processing and packaging to introduce targeted component items into individual ration platforms for enhanced acceptability, nutrition and performance. ***FY 2012 Plans:***	0.600 0	0.845 0	0.900	-	0.900

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603747A: *Soldier Support and Survivability*	PROJECT 610: *FOOD ADV DEVELOPMENT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Continue to identify suitable COTS/NDI candidate items and conduct in-house product development of food components for fielded individual operational rations (MRE 2015 DOP) to enhance acceptability, increase consumption and improve nutritional intake. Conduct pilot scale in-house production to support engineering design, technology insertion, and producibility. Work with vendors and assemblers as needed to ensure feasibility and technology transition. Develop, integrate, and validate state-of-the-art science and technology, food processing and primary/secondary packaging innovations into individual ration platforms to increase operational effectiveness, functionality and improve logistics. processing and packaging to introduce targeted component items into individual ration platforms for enhanced acceptability, nutrition and performance. ***FY 2013 Base Plans:*** Continue to conduct in-house product development of food components and identify suitable COTS/NDI candidate items for fielded individual operational rations (e.g., Meal, Ready-to-Eat 2016 date of pack (DOP)) to enhance warfighter acceptability, increase consumption and improve nutritional intake; Conduct pilot scale in-house production to support engineering design, technology insertion, and commercial producibility; Develop, integrate and validate state-of-the-art science and technology, food processing and primary/secondary packaging innovations into individual ration platforms to increase operational effectiveness; Optimize food component processing and packaging to introduce targeted items/capabilities into individual ration platforms for enhanced acceptability, nutrition and performance; Transition to 6.5 for testing.					
Title: Assault/Special Purpose Ration Improvement Project (ASPIP) ***Articles:*** ***Description:*** Continuous product improvement of special purpose rations by the insertion of new technologies in nutrition, processing and packaging. ***FY 2011 Accomplishments:*** Continue identification and selection of new candidate items. Conduct in-house product development as needed; assemble test menus, select test site, and transition to 6.5 for field test. Complete procurement documents for new items and new assembly documentation for FSR and MCW/LRP. Conduct production testing of new components. ***FY 2012 Plans:*** Continue identification and selection of new candidate items. Conduct in-house product development as needed; assemble test menus, select test site, and transition to 6.5 for field test. Complete procurement documents	0.229 0	0.375 0	0.382	-	0.382

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603747A: *Soldier Support and Survivability*	PROJECT 610: *FOOD ADV DEVELOPMENT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
for new items and new assembly documentation for FSR and MCW/LRP. Conduct production testing of new components. ***FY 2013 Base Plans:*** Continue to identify COTS/NDI components for the Meal, Cold Weather/Long Range Patrol and First Strike Ration to enhance acceptability, variety, consumption and nutritional value of combat rations. Identify new components based upon user feedback, focus groups, emerging products and technologies and user requirements. Conduct accelerated and long term storage studies on candidate components. Work with industry partners to facilitate producibility and technology transition. Transition to 6.5 for Warfighter testing.					
Title: Performance Metrics of Optimized Packaging ***Articles:*** ***Description:*** Integrate / demonstrate thin film and coating technologies and their respective properties into durable, high barrier, non-foil ration packaging materials and to build functionality into packaging materials to enhance package shelf life and product survivability while down-gauging materials. ***FY 2011 Accomplishments:*** This effort will evaluate innovative packaging materials including high barrier, non-foil packaging structure for acidic condiments in order to increase condiment variety and warfighter acceptability for maximum consumption and nutritional intake. Packaging materials will be down-selected then integrated with new formulations of high demand acidic condiments. The effort involves reformulating and optimizing pH of acidic condiments for acceptability, then integrating those new formulations with the down-selected packaging material for evaluation of package integrity, product quality, and shelf life. Producibility testing will then be initiated for commercial scale-up of the reformulated high acid condiments in the new packaging materials. Technical data and prototypes will transition to individual & group ration improvement projects for field testing.	0.121 0	-	-	-	-
Title: Next Generation Combat Breakfast Technologies ***Articles:*** ***Description:*** Develop and demonstrate technologies to enhance and expand development of the next generation of breakfast components. ***FY 2011 Accomplishments:***	0.135 0	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603747A: *Soldier Support and Survivability*	PROJECT 610: *FOOD ADV DEVELOPMENT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Transition from technology base advanced development effort highly acceptable, multi-component breakfast and bakery items to fielded combat rations. Supports frequently requested items that will increase consumption, caloric intake, and morale. Military nutritional and shelf life requirements necessitate application of novel processing, packaging, and stabilization and preservation technologies to bridge the gap between user needs and product availability. Identified specific analytical requirements, ingredient, and packaging specifications such as water activity, pH, moisture, and additives to increase sensory acceptability and extend shelf life (humectants, emulsifiers, water binding agents, and anti-staling agents) are needed. Items include self-heating egg, breakfast burritos, breakfast pizzas, turnovers, sausage, instant breakfast cereals, pita breads, English muffins, etc. Will demonstrate and validate product parameters in commercial scale production, identify critical process controls, determine analytical testing or new test procedures, initiate long term storage studies and sensory evaluation, conduct nutrient analysis and incorporate in menu planning to meet Office of the Surgeon General (OTSG) guidelines, and develop technical data to support transition to production.					
Title: Fielded Group Ration Improvement Project (FGRIP)	0.686	0.985	1.007	-	1.007
Articles:	0	0			
Description: Continuous product improvement project to continuously update/improve group ration components, menus, and packaging by integrating state-of-the-art military/commercial packaging and technology base transitions.					
FY 2011 Accomplishments: Improve family of Unitized Group ration (UGRs) (H&S (2013/2014), A (2012/2013), B and E (2013/2014)) to increase overall Warfighter acceptability, and consumption. Based on Warfighter recommendations, incorporate COTS, NDI, and developmental components into prototype menus. Select field test site and transition to 6.5 for field testing. Complete draft procurement documents. Integrate state of the art packaging and combat ration processing technologies for improved operational and functional performance.					
FY 2012 Plans: Improve family of UGRs (H&S (2014/2015), A (2013/2014), B and E (2014/2015)) to increase overall Warfighter acceptability, and consumption. Based on Warfighter recommendations, incorporate COTS, NDI, and developmental components into prototype menus. Select field test site and transition to 6.5 for field testing. Complete draft procurement documents. Integrate state of the art packaging and combat ration processing technologies for improved operational and functional performance.					
FY 2013 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603747A: *Soldier Support and Survivability*	PROJECT 610: *FOOD ADV DEVELOPMENT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Continue efforts to update/improve components, menus and packaging to increase consumption and overall nutritional intake of the family of Unitized Group Rations (UGRs) for UGR-A (FY15 menus), B, E and H&S (2015/16 DOP). Identify COTS/NDIs and/or develop new food components in-house, conduct in-house testing, down-select items and develop test menus for Warfighter evaluation. Develop, integrate and validate state-of-the-art science and technology, food processing and primary/secondary packaging innovations into group ration platforms to increase operational effectiveness, functionality and improve logistics. Transition to 6.5 for Warfighter testing.					
Title: Military Ration Studies ***Articles:*** ***Description:*** Evaluate the effects of extened consumption. ***FY 2011 Accomplishments:*** Conduct study of effects of extened consumption of military rations on warfighters.	0.070 0	-	-	-	-
Title: Automated Shipboard Dishwashing System (ASDS) ***Articles:*** ***Description:*** Develop technologies to demonstrate an ASDS that will reduce labor and manning for Carrier Scullery Operations. ***FY 2011 Accomplishments:*** Transition Automated Shipboard Scullery project from the Navy Small Business Innovative Research (SBIR) Program to a Phase III effort. Combat Feeding Directorate (CFD) will partner with PEO Carriers on a cost sharing initiative to support a Phase III SBIR effort. During the Phase III effort, the Automated Shipboard Dishwashing System (ASDS) configuration will be demonstrated aboard a U.S. Navy ship. Prior to the demonstrating the system onboard a ship, a Ship Configuration Change Document (SCD) will be initiated and approved. This will allow the ASDS to be installed onboard a Navy vessel for evaluation.	0.470 0	-	-	-	-
Title: US Navy Standard Core Menu Continuous Product Improvement Project (NSCM) ***Articles:*** ***Description:*** Provide recommendations for upgrading/improving Navy Standard Core Menu components by introducing new preparation techniques to enhance menu acceptance and effectiveness while reducing labor requirements.	0.136 0	0.175 0	0.180	-	0.180

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
FY 2011 Accomplishments: Provide Naval Supply Systems Command (NAVSUP) with continuous product identification, evaluations and menu development to support NSCM upgrades and revision changes. ***FY 2012 Plans:*** Provide NAVSUP with continuous product identification, evaluations and menu development to support NSCM upgrades and revision changes. ***FY 2013 Base Plans:*** Continue to identify and validate COTS and NDI candidate enhancements to the NSCM. Provide recommendations for improving menu components by introducing new commercial items and state-of-the-art food preparation and feeding techniques to enhance menu acceptance and reduce labor requirements. Transition product summaries and results/recommendations to Naval Supply Systems Command (NAVSUP) for adoption and procurement.					
Title: Smart Tag Indicators for Ration Packaging ***Articles:*** ***Description:*** Explore use of ultra thin battery technology to illuminate with measurable fill lines, and direction when visibility is low. ***FY 2011 Accomplishments:*** Initiate program to provide ration components in fully integrated, multi-functional, active packaging materials beyond traditional polymer laminate films and oxygen scavenger sachets to improve storage stability & acceptability, reduce product waste, and increase consumption/nutrition. Performance oriented	0.084 0	-	-	-	-
Title: Quality Kinetics/Rapid Fielding of Ration Components ***Description:*** Confirm or optimize current accelerated storage protocols. Validate a predictive model for food degredation. ***FY 2013 Base Plans:*** Continue development of baseline predictive model. Complete storage studies, data collection and analysis. Validate model and implement updated storage protocols for operational ration components, where feasible. Transfer updated protocols to food technologists to support future in-house product development efforts.	-	-	0.082	-	0.082

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Generate tech report summarizing results and facilitating tech transfer of model to food technologists and developers of COTS/NDI components.					
Title: Improved Food Risk Assessment / Management ***Articles:*** ***Description:*** Provide Department of Defense Veterinary Services Agency (DoDVSA) and Services a predictive modeling database / applicable training materials to provide science-based information to perform food safety risk assessment/management duties. ***FY 2011 Accomplishments:*** Improved Food Risk Assessment/Management, provide DoD Veterinary Services Agency and services a predictive modeling database and applicable training materials to provide science-based information to perform food safety risk assessment/management duties	0.030 0	-	-	-	-
Title: Joint Service Refrigeration Container System (JSRCS) ***Articles:*** ***Description:*** Develop a joint service refrigerated container system that will support all military field feeding platforms. ***FY 2011 Accomplishments:*** Develop a Joint Service Refrigerated Container System (JSRCS) to support group ration distribution and storage for multiple services. ***FY 2012 Plans:*** Develop a Joint Service Refrigerated Container System (JSRCS) to support group ration distribution and storage for multiple services.	0.130 0	0.610 0	-	-	-
Title: Advanced Refrigeration Insulation ***Articles:*** ***Description:*** Identify, test, and evaluate optimal insulation for military refrigerators. ***FY 2011 Accomplishments:***	0.150 0	-	-	-	-

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Evaluate and demonstrate state of the art insulation technology, like Aerogel Insulation to significantly improve refrigeration efficiency in the field and shipboard.					
Title: Assault Kitchen (AK) Enhancement to Include UGR-A Capability ***Articles:*** ***Description:*** Streamlined system for preparing A ration with Assault Kitchen. ***FY 2011 Accomplishments:*** Develop a fully integrated refrigeration system for the Assault kitchen to allow the AK to support UGR-A ration feeding, and menu supplements	0.160 0	-	-	-	-
Title: Basic Expeditionary Airfield Resources (BEAR) Kitchen Support Enhancements ***Articles:*** ***Description:*** Provide Air Force new electric food service equipment; and implementation plan to support the initial (i) / follow-on (f) systems to support AF BEAR field feeding. ***FY 2011 Accomplishments:*** Air Force Basic Expeditionary Airfield Resources (BEAR) - Kitchen System Enhancements, provide AF with enhanced, state of the art all electric food service equipment; and continue to refine modular field feeding system. ***FY 2012 Plans:*** Air Force Basic Expeditionary Airfield Resources (BEAR) - Kitchen System Enhancements, provide AF with enhanced, state of the art all electric food service equipment; and continue to refine modular field feeding system.	0.182 0	0.330 0	-	-	-
Title: UGR-A for Expeditionary Basecamps ***Articles:*** ***Description:*** Provides an optimized number of servings for use by Tactical Small Units (TSUs) in contingency basing operations for both the UGR-A (Army) and UGR-B (Marine Corps) with austere field feeding equipment. ***FY 2012 Plans:***	-	0.133 0	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Conduct warfighter evaluation to validate proposed configuration, coordinate recommendations with Joint Culinary Center of Excellence and obtain Joint Service Operational Ration Forum (JSORF) approval, and update and transition revised procurement documents to Defense Logisitcs Agency Troop Support (DLA-TS).					
Title: Barrier Coating for Optimized Package Performance ***Description:*** Provides low-cost, non-foil, high performance packaging materials for incorporation into existing and future combat ration packaging systems, such as the Unitized Group Ration (UGR) and Meal, Ready-to-Eat (MRE). ***FY 2013 Base Plans:*** Complete in-house studies of pilot scale pouches and demonstrating filling, sealing, and processing capabilities. Conduct verification testing (accelerated storage, rough handling, and field utility). Draft Technical Data Package (TDP) for incorporation into ration component performance specifications. Conduct validation trials with industrial partners to ensure materials indentified in TDP can be run on production scale equipment and converted into conforming preformed pouches. Verify industry capability of producing retort and non-retort pouches in both preformed and horizontal-form-fill-seal configurations. Transition new/revised procurement documents to DLA - Troop Support.	-	-	0.240	-	0.240
Title: Autonomous Shipboard Cleaning System (ASDS) ***Description:*** There is a need to develop an automated and innovative foodservice cleaning system for Navy legacy and future ships due to the planned reductions of Food Service Attendants (FSA), and Culinary Specialists (CS), required under the Navy Transformation Goal of optimized crewing. ***FY 2013 Base Plans:*** Accept delivery of the contractor developed ASDS Phase II Small Business Innovation Research (SBIR) prototype, initiate a Phase III development effort. Conduct land-based testing at Natick Soldier Research Development and Engineering Center (NSRDEC) and coordinate enhanced simulation testing and demonstrations of the upgraded prototypes at Naval Surface Warfare Center's test facilities.	-	-	0.283	-	0.283
Title: Integration of Selected Ration Components Using Novel Food Processing Technology to Individual Ration Platforms ***Description:*** Develop operational concept for integration of specific novel processed ration components into individual (as well as group and assault/special purpose) ration platforms. Establish baselines for nutrition retention, producibility and package utility. Evaluate baselines for novel processed components against	-	-	0.103	-	0.103

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
key performance parameters of known thermally processed ration components. Generate draft technical requirements and/or revised documents for novel processed ration components. ***FY 2013 Base Plans:*** Develop operational concept for integration of specific novel processed ration components into individual (as well as group and assault/special purpose) ration platforms. Establish baselines for nutrition retention, producibility and package utility. Evaluate baselines for novel processed components against key performance parameters of known thermally processed ration components. Generate draft technical requirements and/or revised documents for novel processed ration components.					
Title: Containerized Ice Making System ***Articles:*** ***Description:*** Develop a containerized ice making system to support a 600 person base camp for cooling drinking water in extreme arid conditions and support other ice requirements for those on the base camp and for soldiers going out on missions/patrols. ***FY 2012 Plans:*** Conduct major subcomponent testing. Perform design analysis review. Award Phase III prototype effort. Fabricate System prototype.	-	0.200 0	-	-	-
Title: Multi-Functional Secondary Packaging ***Articles:*** ***Description:*** Integrate alternative secondary packaging technologies into current ration packaging systems so as to reduce cost and waste generation, while maintaining required field performance. Production and insertion of new packaging technologies into individual, assault/special purpose and group ration systems. Provide lighter weight, lower cost, recyclable MRE and Unitized Group Ration shipping containers. ***FY 2012 Plans:*** Prototype fiberboard container demonstrated during the FY11 MRE Field evaluation will be further evaluated in comparison to the existing military fiberboard container. Scale-up of prototype MRE and UGR secondary shipping containers will be performed and containers evaluated at full production levels using existing assembler?s equipment.	-	0.150 0	-	-	-
Title: Co-Extruded Alternate Nutrient System (CANS)	-	-	0.100	-	0.100

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Description: Provide the Warfighter with functional multi-component bars and single matrices? pastes that serve as vehicles for optimizing nutrient delivery. Develop matrices that are best suited to deliver nutrients/ performance optimizers that are stable, functional and organoleptically appealing. Increase quality and variety of performance bars utilizing co-extrusion technologies. ***FY 2013 Base Plans:*** Validate producibility; finalize development of mature products (based on sensory analysis, accelerated shelf life test and testing in a relevant environment); and finalize packaging requirements.					
Title: Alternative Polymer Processing Technology (APPT) ***Description:*** Improve ration packaging by enhancing package performance through the use of advanced polymer processing technologies, such as orientation, co-extrusion, and layer multiplying co-extrusion. Reduce packaging weight and waste. Improve packaging performance through enhanced mechanical and barrier properties. ***FY 2013 Base Plans:*** Prototype packages will be fabricated and storage stability and rough handling studies will be conducted to demonstrate performance in a simulated environment. Contracts will be initiated for insect infestation studies. The technical risk associated with this project is minimized, given that several congressionally funded programs have laid the ground work for this research through current and past projects. Producibility studies and field testing will be performed on Prototype packaging structures.	-	-	0.280	-	0.280
Title: Transition of Advanced Appliances for Field Kitchens ***Description:*** Provide the Warfighter with JP-8-fueled appliances that save fuel, are simple to use, provide a safe kitchen environment, and can easily be moved into buildings when necessary. Warfighters benefit from a safer, healthier, more comfortable kitchen environment, and equipment that facilitates preparation of quality A-ration meals. Existing appliances are only about 15-40% efficient; new burner technologies have demonstrated 75% efficiency, typical of stationary gas-fired equipment. ***FY 2013 Base Plans:*** Validate producibility and finalize development of mature JP-8 appliances which have been successfully demonstrated in a relevant environment in a 6.3 technical demonstration; finalize performance requirements.	-	-	0.457	-	0.457

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Perform cost evaluation of relevant appliances and JP-8 burner technologies. Finalize integration of appliances into modular cabinet interface for kitchen platforms.					
Accomplishments/Planned Programs Subtotals	4.085	3.903	4.014	-	4.014

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• RDT&E 654713.548: *Military Subsistence System*	2.043	2.073	2.132		2.132		2.127	2.202	2.239	Continuing	Continuing
• OPA M65801: *Refrigerated Containers*	23.824	22.133	22.441		22.441		22.486	22.470		Continuing	Continuing

D. Acquisition Strategy

Project development will transition to System Development & Demonstration and production.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Combat Feeding Program Management	Various	RDECOM, Natick, MA:Natick, MA	4.026	0.458		0.454		-		0.454	Continuing	Continuing	Continuing
		Subtotal	4.026	0.458		0.454		-		0.454			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Service Food/Combat Feeding Equipment	Various	RDECOM, Natick, MA:Natick, MA	33.198	1.410		1.457		-		1.457	Continuing	Continuing	Continuing
Joint Service Food/Combat Feeding Equipment	Various	Various:Various	21.282	1.499		1.549		-		1.549	Continuing	Continuing	Continuing
		Subtotal	54.480	2.909		3.006		-		3.006			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Service Food/Combat Feeding Equipment	Various	DTC/AEC:National Capitol Region	8.592	0.536		0.554		-		0.554	Continuing	Continuing	Continuing
		Subtotal	8.592	0.536		0.554		-		0.554			

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	67.098	3.903		4.014		-		4.014			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
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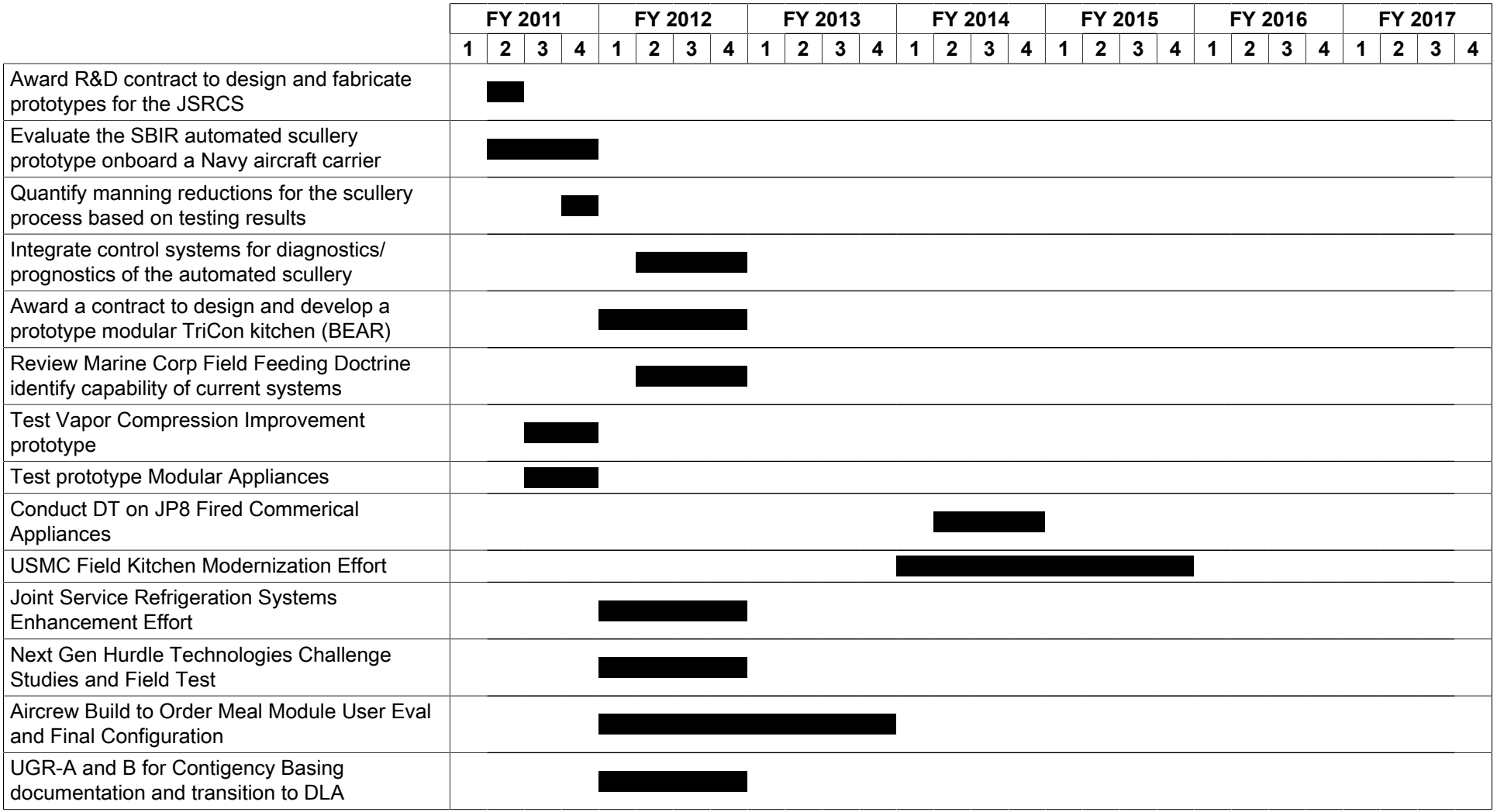

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
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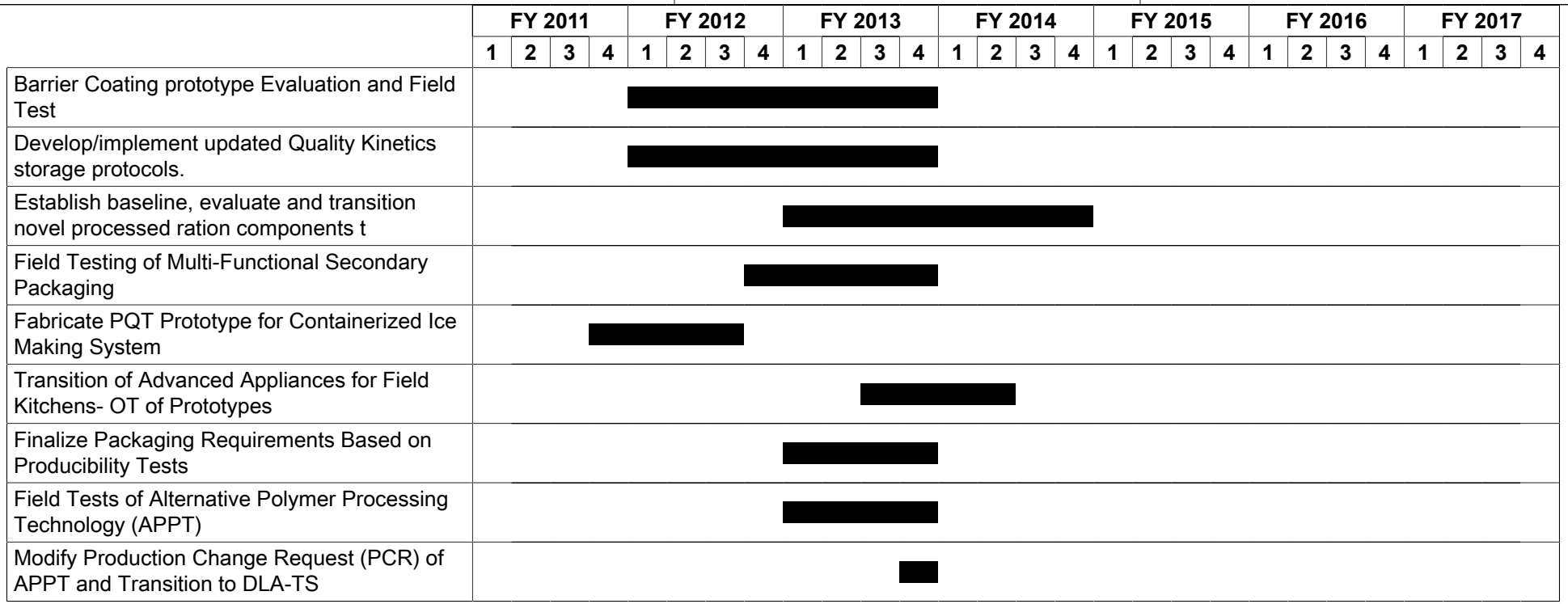

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
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Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Award R&D contract to design and fabricate prototypes for the JSRCS	2	2011	2	2011
Evaluate the SBIR automated scullery prototype onboard a Navy aircraft carrier	2	2011	4	2011
Quantify manning reductions for the scullery process based on testing results	4	2011	4	2011
Integrate control systems for diagnostics/prognostics of the automated scullery	2	2012	4	2012
Award a contract to design and develop a prototype modular TriCon kitchen (BEAR)	1	2012	4	2012
Review Marine Corp Field Feeding Doctrine identify capability of current systems	2	2012	4	2012
Test Vapor Compression Improvement prototype	3	2011	4	2011
Test prototype Modular Appliances	3	2011	4	2011
Conduct DT on JP8 Fired Commerical Appliances	2	2014	4	2014
USMC Field Kitchen Modernization Effort	1	2014	4	2015
Joint Service Refrigeration Systems Enhancement Effort	1	2012	4	2012
Next Gen Hurdle Technologies Challenge Studies and Field Test	1	2012	4	2012
Aircrew Build to Order Meal Module User Eval and Final Configuration	1	2012	4	2013
UGR-A and B for Contigency Basing documentation and transition to DLA	1	2012	4	2012
Barrier Coating prototype Evaluation and Field Test	1	2012	4	2013
Develop/implement updated Quality Kinetics storage protocols.	1	2012	4	2013
Establish baseline, evaluate and transition novel processed ration components t	1	2013	4	2014
Field Testing of Multi-Functional Secondary Packaging	4	2012	4	2013
Fabricate PQT Prototype for Containerized Ice Making System	4	2011	3	2012
Transition of Advanced Appliances for Field Kitchens- OT of Prototypes	3	2013	2	2014
Finalize Packaging Requirements Based on Producibility Tests	1	2013	4	2013
Field Tests of Alternative Polymer Processing Technology (APPT)	1	2013	4	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
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	Start		End	
Events	Quarter	Year	Quarter	Year
Modify Production Change Request (PCR) of APPT and Transition to DLA-TS	4	2013	4	2013

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COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
C08: *RAPID EQUIPPING FORCE*	22.762	10.000	6.059	19.860	25.919	6.427	6.308	5.937	6.037	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Note that: (a) Equipment mix and configuration may change based on changes in operational environment and circumstances. (b) REF- Resource Management Capabilities Needs equipment and funding execution details will be provided in the Secretary of Army report to the Congressional Defense Committees in March and October of each year (per House Appropriations Committee (HAC)Report #108-553, DoD Appropriations Bill 2005, June 18, 2004, page 134.)

A. Mission Description and Budget Item Justification

The REF was established in 2003 as a unique, singular organization designed to address an Army-wide, systemic deficiency in providing immediate technology solutions. The REF adds value for the Army by rapidly providing urgent capabilities to U.S. Army Forces employed globally by harnessing technologies in order to improve operational effectiveness. The REF canvasses the military, industry, academia and science communities for readily available commercial and government solutions that do not currently exist in the Army inventory, and then transitions successes to Army Materiel Command (AMC) for sustainment and in appropriate cases back to the Army Acquisition community as a Program of Record, for future life-cycle management. Additionally, the REF facilitates the early deployment of Army-managed solutions to meet emerging requirements.

The REF bridges the gap between the lengthy acquisition process and immediate equipping needs. We pursue tangible solutions that can be equipped within a goal of 90 days. REF focuses on finding effective game-changing capabilities to increase Soldier effectiveness, protection and lethality in any operational environment. The REF process provides the mechanism to respond rapidly to an adaptive enemy who changes in days and months, not years. The REF Teams deployed in theater work with Combatant Commanders (COCOMs) to understand their urgent needs, for which the REF acquisition capability may identify, procure and deliver solutions to the deployed units. A key element of this process is fiscal flexibility, permitting the REF to allocate funds against emerging threats and requirements in the year of fiscal execution.

The REF works directly with Operational Commanders at Brigade and below to find solutions to identified equipping requirements. These solutions may result in procurement of new or existing military/commercial materiel equipment, or accelerated development of a Future Force materiel solution for insertion into the current force now. The REF key tasks are:
- Be responsive to tactical unit commanders engage Brigade Combat Team/Brigade Commanders (BCT/BDE CDRs)early and often
- Bridge specific Operational Needs Statement/Joint Urgent Operational Needs Statement (ONS/JUONS)Gaps meet urgent needs
- In coordination with Asymmetric Warfare Group (AWG)develop materiel solutions to counter Asymmetric Threats
- Ensure adequate training and sustainment are provided with every capability
- Cultivate and rapidly insert emerging technologies into Soldiers hands
- Conduct operational assessments to provide useful operator feedback to the Army
- Transition effective projects through Capability Development for Rapid Transition (CDRT) to support long-term sustainment

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
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- Be aggressive and push the acquisition envelope, but operate within the law
- Integrate with existing Army organizations and systems to enable them to recognize and solve problems for tactical units

The REF Integrated Priority List (RIPL) (Top 11 Priorities driven by input from Deployed Units) drives all REF efforts. The priorities with metrics are shown below:
1.Dismounted Improvised Explosive Device (IED) Defeat Measures (Requirements 34; Projects 57)
2.Dismounted Support Operations (Requirements 36; Projects 44)
3.Intelligence Surveillance and Reconnaissance (ISR) Shortfalls in Environmentally Inhospitable Operational Environments(OEs) (high wind/high altitude, sewers, tunnels, etc.) (Requirements 93; Projects 97)
4.Small Combat Outpost (COP)/Patrol Base Force Protection and Village Support Operations (Requirements 82; Projects 97)
5.Dismounted Blue Force Tracking and Mission Command (Requirements 18; Projects 20)
6.Counter Ambush (precision (Small Arms Fire (SAF) and Rocket Propelled Grenade (RPG) (Requirements 33; Projects 36)
7.Non-Lethal Messaging (Requirements 9; Projects 9)
8.Advanced Escalation of Force Equipment (Requirements 22; Projects 19)
9.Entry control point operations and Vehicle Search Operations (Requirements 13; Projects 19)
10.Route Clearance Support for non Combined Joint Task Force (CJTF) Paladin/Engineer Units (Requirements 1; Projects 1)
11.Other (Requirements 129; Projects 79) Additional areas of focus in this priority include reducing energy dependence in small tactical units and understanding the causes of Traumatic Brain Injury (TBI)
The REF FY13 RDT&E Request of $5.994 million (base) $19.860 million (OCO) integrates, coordinates, deploys and provides urgent material capabilities to deployed and pre-deploying units in support of Joint and Army Forces Commanders to enhance the combat effectiveness of the operating force and enable the defeat of asymmetric threats. The emphasis for RDT&E funding is on Testing and Evaluation that supports projects in the areas of Force Protection, IED Detection and Defeat, enhanced ISR capabilities, Tactical Command, Control and Communication tools.

RDT&E funding also provides the REF the flexibility to invest in near-term, innovative solutions. RDT&E funds are necessary in the vast majority of all REF projects. REF uses RDT&E funds to work with industry and Other Governmental Agencies (OGAs) in order to further develop high (>6) Technology Readiness Level (TRL) or advanced technologies that often only need small amounts of funding in order to help them achieve a maturity level that is suitable to solve a Warfighter problem with low investments for high payoffs. REF requires RDT&E funds to integrate several different Commercial Off The Shelf/Government Off The Shelf (COTS/GOTS) technologies into one capability that solves the tougher and more complex problems. REF uses RDT&E funds to conduct demonstrations and tests to validate technology solutions. REF requires RDT&E funds in order to modify existing technologies that were developed for one purpose but now may be suitable to solve another problem. REF Expeditionary Labs use RDT&E funds to develop and adapt technologies that meet immediate requirements forward in the theaters of operation with the active assistance of the Warfighter in the solution development process. REF requires RDT&E funds to test technologies in order to ensure suitability and safety before equipping the Warfighter - Any modified COTS/GOTS item has to be tested.

The Asymmetric Warfare Group (AWG) integrates, coordinates, deploys and provides trained and ready forces in support of Joint and Army Forces Commanders' to enhance the combat effectiveness of the operating force and enable the defeat of asymmetric threats. The AWG observes, collects, develops, validates, and disseminates emerging tactics, techniques, and procedures (TTPs) to supported units. AWG povides Train-the-Trainer for countering asymmetric threats, to include

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603747A: *Soldier Support and Survivability*	PROJECT C08: *RAPID EQUIPPING FORCE*

Improvised Explosive Devices, suicide bombers and bioweapons. AWG identifies and coordinates the fielding of rapid prototyping and/or Commercial Off-The-Shelf (COTS) solutions to counter asymmetrical threats. By providing the tools, expertise, and experience necessary to improve and quicken a units' reaction to rapidly changing TTPs, the AWG supports the rapid targeting and target execution of asymmetric warfare threats. The AWG also provides service procedures for identifying and disseminating lessons learned in order to support the need for rapid adaptation. Additionally, the AWG provides service acquisition and develops fielding procedures in support of Commanders' requirements for new technologies and materiel solutions for Asymmetric threa

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: Rapid Equipping Force	22.762	10.000	6.059	19.860	25.919
Articles:	0	0			

Description: Funding is provided for the following effort

FY 2011 Accomplishments:
The REF bridges the gap between the Army acquisition process and warfighter immediate needs. The REFs intent is to provide urgent capabilities to US Army Forces across all Combatant Commands (COCOMS), harnessing current and emerging technologies that improve operational effectiveness focusing on commercially available solutions not in the Army inventory. The requirements and budgetary efforts are focused on the REF Integrated Priority List (RIPL) and includes defeating Improvised Explosive Devices that are designed to kill or injure dismounted Soldiers, providing dismounted Soldiers the tools they need to operate independently of their vehicles and bases for extended periods, providing improved force protection for small, temporary outposts, reducing energy dependence in small, tactical units, and understanding the causes of Traumatic Brain Injury (TBI). As of Sep 30, 2011, the REF is managing 470 requirements and 478 projects in support of immediate warfighter needs. Funding includes $11Million Rapid Acquisition Authority from the Department of Defense.

FY 2012 Plans:
Rapid Equipping Force (REF) personnel reviewed Army Senior Leadership guidance and estimate that the current level of effort in FY2011 will continue despite the draw down of forces in Operation New Dawn (OND). The FY2011 level of effort will continue until at least FY2014 due to emerging and increasing requirements associated with supporting immediate warfighter needs in support of Operation Enduring Freedom. The level of effort may increase as the REF continues to build partnerships that will provide urgent capabilities to US Army Forces across all COCOMS.

FY 2013 Base Plans:
Rapid Equipping Force (REF) personnel reviewed Army Senior Leadership guidance and estimate that the current level of effort in FY2011 will continue despite the drawdown of forces in Operation New Dawn (OND). The FY2011 level of effort will continue until at least FY2014 due to emerging and increasing requirements

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603747A: *Soldier Support and Survivability*	PROJECT C08: *RAPID EQUIPPING FORCE*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
associated with supporting immediate warfighter needs in support of Operation Enduring Freedom. The level of effort may increase as the REF continues to build partnerships that will provide urgent capabilities to US Army Forces across all COCOMS. ***FY 2013 OCO Plans:*** Rapid Equipping Force (REF) personnel reviewed Army Senior Leadership guidance and estimate that the current level of effort in FY2011 will continue despite the draw down of forces in Operation New Dawn (OND). The FY2011 level of effort will continue until at least 2014 due to emerging and increasing requirements associated with supporting immediate warfighter needs in support of Operation Enduring Freedom. The level of effort may increase as the REF continues to build partnerships that will provide urgent capabilities to US Army Forces across all COCOMS.					
Accomplishments/Planned Programs Subtotals	22.762	10.000	6.059	19.860	25.919

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• M08101: *Other Procurement Army*	71.400	26.923	5.078	98.167	103.245		4.800	4.300	4.400	Continuing	Continuing
• OMA: *Operations and Maintenance, Army*	161.722	137.400	7.112	120.800	127.912		7.442	7.722	7.778	Continuing	Continuing

D. Acquisition Strategy

The REF rapidly provides urgent capabilities to US Army Forces employed globally by harnessing current and emerging technologies in order to improve operational effectiveness. The REF focus is on rapidly placing game-changing capabilities into Soldiers' hands. This mission is accomplished in one of two ways: rapidly adapting COTS and GOTS equipment to meet operational needs, and; developing emerging deployable capability via interaction with research and development organizations and academia. All capabilities are safety tested prior to insertion into operational environments. Training and sustainment is provided for every capability until it is transitioned to an approved program of record or terminated through the CDRT process. Operational assessments are conducted to provide feedback in support of Army fielding decisions. REF capabilities routinely serve to bridge specific ONS and JUONS gaps to meet urgent requirements.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603747A: *Soldier Support and Survivability*	PROJECT C08: *RAPID EQUIPPING FORCE*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Dismounted IED Defeat Measures-Duraplex Antenna-JEIDDO Effort	SS/TBD	Various:Various	-	10.000		0.799		0.400		1.199	Continuing	Continuing	Continuing
Dismounted Support Operations	SS/Various	Various:Various	-	-		0.799		4.000		4.799	Continuing	Continuing	Continuing
ISR Shortfalls in Environmentally Inhospitable OE's	SS/Various	Various:Various	-	-		0.799		1.000		1.799	Continuing	Continuing	Continuing
Small COP / Patrol Base Force Protection and Village Support Operations	SS/Various	Various:Various	-	-		0.799		4.000		4.799	Continuing	Continuing	Continuing
Other-REF RIPL Priorities (5-11)	SS/Various	Various:Various	-	-		0.798		10.460		11.258	Continuing	Continuing	0.000
Base: Various Projects-Protect the Force in Counter Insurgency	SS/TBD	TBD:TBD	11.841	-		-		-		-	0.000	11.841	0.000
Base: Various Projects-Enhance Intelligence Surveillance Recon	SS/TBD	TBD:TBD	9.009	-		-		-		-	0.000	9.009	0.000
Base: Various Projects-Logistics/Medical in Counterinsurgency Ops	SS/Various	TBD:TBD	1.639	-		-		-		-	0.000	1.639	0.000
Base: Various Projects-Timeliness of Analysis and Information Dissemination	SS/Various	TBD:TBD	6.961	-		-		-		-	0.000	6.961	0.000
Congressional Add-Squad Mission Support System (SMSS)	SS/Various	TBD:TBD	1.600	-		-		-		-	0.000	1.600	0.000
SSTR/Economic Assumptions/ FFRDC and SBIR	SS/Various	TBD:TBD	1.090	-		-		-		-	0.000	1.090	0.000
OCO: Rapid Equipping Force	SS/Various	TBD:TBD	19.190	-		-		-		-	0.000	19.190	0.000
		Subtotal	51.330	10.000		3.994		19.860		23.854			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603747A: *Soldier Support and Survivability*	PROJECT C08: *RAPID EQUIPPING FORCE*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ATEC (REF Integrated Priority List 1-11)	TBD	Various:Various	7.779	-		2.065		-		2.065	Continuing	Continuing	Continuing
		Subtotal	7.779	-		2.065		-		2.065			

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	59.109	10.000		6.059		19.860		25.919			

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603747A: *Soldier Support and Survivability*	PROJECT C09: *SOLDIER SUPPORT EQUIPMENT - AD*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
C09: *SOLDIER SUPPORT EQUIPMENT - AD*	48.000	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This was a congressional add. we are not showing R-Form

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: Congressional Add ***Articles:*** ***Description:*** Congressional Add ***FY 2011 Accomplishments:*** Congressional add - R-Form turned off	48.000 0	-	-	-	-
Accomplishments/Planned Programs Subtotals	48.000	-	-	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

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

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	19.610	5.856	8.660	-	8.660	14.704	14.212	13.950	6.775	Continuing	Continuing
907: *Tactical Exploitation of National Capabilities-MIP*	19.610	5.856	8.660	-	8.660	14.704	14.212	13.950	6.775	Continuing	Continuing

Note

FY11 Congressional Mark of $5.800 million, and adjustments $0.352 million
FY11 Congressional Add of $7.800 million OCO RDTE for Air Vigilance prototype development

A. Mission Description and Budget Item Justification

The Tactical Exploitation of National Capabilities (TENCAP) program serves as the Army's centralized lead to perform National Intelligence cross-agency engineering to evaluate, enhance, prototype, and transition Intelligence, Surveillance, and Reconnaissance (ISR) technologies/capabilities developed by Science and Technology (S&T) and other activities across the National Intelligence Community into Army systems and architectures. TENCAP (1) ensures continued access to current National and Theater sensors and supporting tactical architectures; and (2) exploits new developments that focus on improving the tasking, analysis, processing, exploitation, and dissemination of the intelligence data collected. This includes efforts to: (1) shorten targeting timelines down to Platoon level; (2) enhance target identification; (3) provide better target location (accuracy); (4) provide continued coverage of a target; and (5) develop in-theater analytic tools to enable data exploitation in near-real-time support to contingency operations.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	17.962	5.766	6.542	-	6.542
Current President's Budget	19.610	5.856	8.660	-	8.660
Total Adjustments	1.648	0.090	2.118	-	2.118
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	0.090			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	1.648	-	2.118	-	2.118

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*	PROJECT 907: *Tactical Exploitation of National Capabilities-MIP*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
907: *Tactical Exploitation of National Capabilities-MIP*	19.610	5.856	8.660	-	8.660	14.704	14.212	13.950	6.775	Continuing	Continuing
Quantity of RDT&E Articles											

Note

0603766A - Tactical Electronic Surveillance System program element develops advanced prototypes and capabilities to meet Army intelligence and operational requirements while protecting Army equity and ensuring continued interoperability through changes and improvements in the National Intelligence Community systems and architectures.

A. Mission Description and Budget Item Justification

The Tactical Exploitation of National Capabilities (TENCAP) program serves as the Army's centralized lead to perform National Intelligence cross-agency engineering to evaluate, enhance, prototype, and transition Intelligence, Surveillance and Reconnaissance (ISR) technologies/capabilities developed by Science and Technology (S&T) and other activities across the National Intelligence Community into Army systems and architectures. TENCAP (1) ensures continued access to current National and Theater sensors and supporting tactical architectures; and (2) exploits new developments that focus on improving the tasking, analysis, processing, exploitation, and dissemination of intelligence data. This includes efforts to: (1) shorten targeting timelines down to Platoon level; (2) enhance target identification; (3) provide better target location (accuracy); (4) provide continued coverage of a target; and (5) develop in-theater analytic tools to enable data exploitation in near-real-time support to contingency operations.

FY2013 Base funding in the amount of $8.660 million provides for engineering and collaborative development of Intelligence Community advancements for continuous interoperability with those community assets; development of more effective intelligence collection, processing, exploitation and dissemination; development and initiation of the Air Vigilance (AV) prototype capability as an enduring Counter-Unmanned Aerial System (C-UAS) Army Program of Record.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: TENCAP Cross-agency Engineering activities	11.810	5.766	6.542
Articles:	0	0	
Description: Collaborate, develop and exploit emerging multi-intelligence and Space-based technologies to satisfy/accelerate Army Intelligence, Surveillance, Reconnaissance (ISR), Battle Command and Force Protection requirements.			
FY 2011 Accomplishments: Improved 24/7 Multi-Intelligence sensor coverage; Migrated new Special Emitter Identification (SEI) capabilities to terrestrial and airborne sensors; Ensured Army requirements included in National signal intelligence (SIGINT) Increment 2 capability document; Enhanced Military Intelligence by adding SIGINT capabilities to geo-positioning on Full Motion Video (FMV); Added Moving Target Indicator (MTI) tracks on FMV; Added Human Intelligence (HUMINT) reports on FMV; Advanced Geo-spatial Imagery			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*	PROJECT 907: *Tactical Exploitation of National Capabilities-MIP*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
(AGI) exploitation tools; Enabled theater control of a National sensor; Improved identity resolution of threat targets; Improved geo-positioning accuracy across sensors/fires. ***FY 2012 Plans:*** Ensure Army requirements in National developments; Ensure Army continued access to sensors and Space-based capabilities; Monitor emerging technologies and systems; Develop and/or exploit advancements for integration and standardization in Army processing, exploitation and data dissemination (PED) and theater net-centric geolocation (TNG) capabilities; Develop prototypes that improve Army intelligence products. ***FY 2013 Plans:*** Ensure Army requirements in National developments; Ensure Army continued access to sensors and Space-based capabilities; Monitor emerging technologies and systems; Develop and/or exploit advancements for integration and standardization in Army processing, exploitation and data dissemination (PED) and theater net-centric geolocation (TNG) capabilities; Exploit commercial imagery developments; Develop prototypes that improve Army intelligence products.			
Title: Air Vigilance ***Articles:*** ***Description:*** Prototype development capability initiated under Army TENCAP program. ***FY 2011 Accomplishments:*** OCO funds provided for advanced development of Air Vigilance prototype capability. ***FY 2012 Plans:*** Continue development of Air Vigilance prototype capability for initiation as enduring Counter-Unmanned Aerial System (C-UAS) Army Program of Record. ***FY 2013 Plans:*** Establish new Counter-Unmanned Aerial System (C-UAS) Army Program of Record, development of remote and airborne capabilities.	7.800 0	0.090 0	2.118
Accomplishments/Planned Programs Subtotals	19.610	5.856	8.660

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*	PROJECT 907: *Tactical Exploitation of National Capabilities-MIP*

D. Acquisition Strategy

The Army's Tactical Exploitation of National Capabilities (TENCAP) mission is a congressionally mandated and chartered enduring requirement to leverage National intelligence capabilities useful to the tactical Army. The Army's TENCAP acquisition strategy is driven by an annual TENCAP General Officer Steering Group (TGOSG), co-chaired by the Army G2; Army G8; and the Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology [ASA(ALT)], and includes representatives from the Army G3, Army G6, Army Training and Doctrine Command (TRADOC) and the Program Executive Office for Intelligence, Electronic Warfare and Sensors (PEO IEW&S). The TGOSG validates, prioritizes, and guides TENCAP efforts according to Army and Defense strategy. Based on TGOSG guidance, TENCAP collaborates across the Intelligence Community and within the Army to partner and facilitate transfer and integration of advanced capabilities into Army Programs of Record (POR). With acquisition discipline and oversight by PEO IEW&S, TENCAP executes those TGOSG approved efforts through multiple contracts or agreements with military and National agencies, Labs, Industry Partners and Academia to maximize Army leverage of National intelligence and technology development and minimize redundancy and cost. TENCAP manages these acquisition efforts, including rapid development and delivery of advanced capabilities, to meet Army validated but unforeseen warfighter requirements (including efforts referred to as Quick Reaction Capabilities), for the duration required to transition emerging and developmental capabilities into enduring Army programs.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*	PROJECT 907: *Tactical Exploitation of National Capabilities-MIP*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Intelligence Subject Matter Experts and Engineers (SETA)	C/FFP	TASC, Inc.:Alexandria, VA	7.000	2.474		3.126		-		3.126	Continuing	Continuing	Continuing
Imagery Intelligence Engineers(Matrix Government)	MIPR	Army Geospatial Center (AGC):Alexandria, VA	1.800	0.870		0.950		-		0.950	Continuing	Continuing	Continuing
		Subtotal	8.800	3.344		4.076		-		4.076			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TENCAP Focus Areas	Various	Multiple:Multiple	7.669	-		-		-		-	Continuing	Continuing	0.000
Air Vigilance	MIPR	Classified:Multiple	11.800	0.090		1.838		-		1.838	0.000	13.728	0.000
		Subtotal	19.469	0.090		1.838		-		1.838			0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prgm Mgmt -Dir Gov, travel, facilities	Various	ASPO:Alexandria, VA	5.214	2.422		2.466		-		2.466	Continuing	Continuing	0.000
		Subtotal	5.214	2.422		2.466		-		2.466			0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Lab Tests, Exercises and Mission Rehearsals	MIPR	Multiple:Multiple	1.891	-		0.280		-		0.280	Continuing	Continuing	Continuing
		Subtotal	1.891	-		0.280		-		0.280			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*	PROJECT 907: *Tactical Exploitation of National Capabilities-MIP*

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	35.374	5.856		8.660		-		8.660			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*	PROJECT 907: *Tactical Exploitation of National Capabilities-MIP*

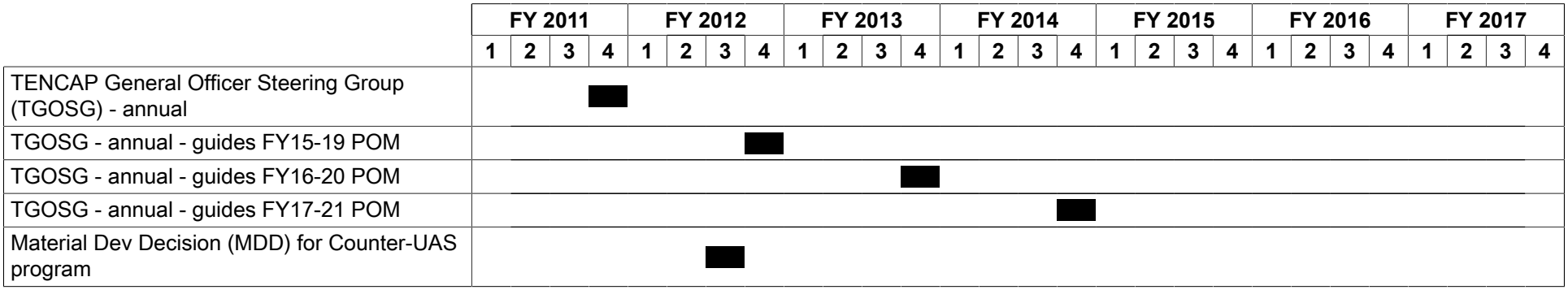

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603766A: *Tactical Electronic Surveillance System - Adv Dev*	**PROJECT** 907: *Tactical Exploitation of National Capabilities-MIP*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
TENCAP General Officer Steering Group (TGOSG) - annual	4	2011	4	2011
TGOSG - annual - guides FY15-19 POM	4	2012	4	2012
TGOSG - annual - guides FY16-20 POM	4	2013	4	2013
TGOSG - annual - guides FY17-21 POM	4	2014	4	2014
Material Dev Decision (MDD) for Counter-UAS program	3	2012	3	2012

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603774A: *Night Vision Systems Advanced Development*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	4.975	-	10.715	-	10.715	9.066	6.208	5.260	5.193	Continuing	Continuing
131: *NIGHT VISION SYS A/DEV*	4.975	-	-	-	-	-	-	-	-	Continuing	Continuing
VT7: *SOLDIER MANEUVER SENSORS - ADV DEV*	-	-	10.715	-	10.715	9.066	6.208	5.260	5.193	Continuing	Continuing

Note

Change Summary Explanation:

Fiscal Year 2011-Program Increase of $4.975 million for Project D131 for CSP TLA Laser technology maturity.

Fiscal Year 2013-Program Increase of $10.715 million for Project VT7 Soldier Maneuver Systems Advanced Development efforts.

A. Mission Description and Budget Item Justification

This program element focuses on efforts to evaluate and integrate technologies and representative prototype systems that facilitate the development of Soldier-borne sensor devices transitioning from the laboratory to operational use. Efforts focus on proving out commonality across as broad a spectrum of users as possible to provide enhanced Soldier products, giving them superiority on the battlefield.

Project 131 (Night Vision Systems Advanced Development) This project supports the Army's transformation by developing payloads for brigade combat team, division, and corps Unmanned Aircraft Systems (UAS) and unmanned systems in accordance with Headquarters Department of the Army (HQDA) and Training and Doctrine Command (TRADOC) priorities. The funds associated with Project 131 are for the technology maturity of the Common Sensor Payload Target Location Accuracy (CSP TLA) Laser. Once this laser technology has been matured to the appropriate Technology Readiness Level (TRL), it will be cut into the CSP TLA development effort and eventual production to replace the baseline payloads on the Gray Eagle platform.

Project VT7 (Soldier Maneuver Sensors-Advanced Development) Efforts focus on proving out commonality across as broader spectrum of users as possible to provide enhanced Soldier products, giving them superiority on the battlefield. Near term efforts include the integration of goggles with the weapon sights for Rapid Target Acquisition (RTA) in a realistic operating environment, thereby increasing Soldier lethality. This project also develops a Family of Weapon Sights (FWS) with fused electro-optical performance, including focal plane arrays and high resolution micro-displays. FWS enabling technologies increase product resolution, range, and imaging performance. New technologies will improve Soldier lethality, survivability, reduce weight, and improve affordability, mobility and comfort to combat and training environments. In addtion this project will explore insertion of technology that improves the Soldier's ability to detect Improvised Explosive Devices (IED) Detection.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army					DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*		R-1 ITEM NOMENCLATURE PE 0603774A: *Night Vision Systems Advanced Development*			
B. Program Change Summary ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**
Previous President's Budget	-	-	-	-	-
Current President's Budget	4.975	-	10.715	-	10.715
Total Adjustments	4.975	-	10.715	-	10.715
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	4.975	-	10.715	-	10.715

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603774A: *Night Vision Systems Advanced Development*	PROJECT 131: *NIGHT VISION SYS A/DEV*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
131: *NIGHT VISION SYS A/DEV*	4.975	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project supports the Army's transformation by developing payloads for brigade combat team, division, and corps Unmanned Aircraft Systems(UAS) and unmanned systems in accordance with Headquarters Department of the Army (HQDA) and Training and Doctrine Command (TRADOC) priorities.

CSP Target Location Accuracy (TLA) is the final upgrade to CSP which will provide all of the CSP HD functionality but with significantly improved targeting accuracy. CSP TLA provides the Battlefield Commander a vastly improved TLA allowing timely use of Joint Direct Attack Munitions (JDAMs) and Coordinate Seeking Weapons (CSWs) across the battlespace. CSP TLA is being procured as an upgraded capability for the Gray Eagle UAS program and can be integrated onto other manned and unmanned aerial platforms. The funds associated with this funding line are for the technology maturity of the TLA Laser. Once this laser technology has been matured to the appropriate Technology Readiness Level (TRL), it will be cut into the TLA development effort and eventual production to replace the CSP HD payloads on the Gray Eagle platform.

This program has no FY 2013 Base or OCO requirement.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: CSP TLA Laser Technology Maturity	4.975	-	-
Articles:	0		
Description: Maturing the technology of the TLA Laser			
FY 2011 Accomplishments: Maturing the technology of the TLA Laser			
Accomplishments/Planned Programs Subtotals	4.975	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• 0305204A - D11A: *0305204A - Tactical Unmanned Aerial Vehicle (11A)*	24.452	15.910	6.247		6.247		7.386	11.994	3.094	0.000	76.263

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603774A: *Night Vision Systems Advanced Development*	PROJECT 131: *NIGHT VISION SYS A/DEV*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• A00020: *MQ-1 Payload - UAS - A00020*	83.556	146.983	231.508		231.508		258.027	10.146	10.162	0.000	989.868

D. Acquisition Strategy

The approved acquisition strategy was to award a Sole Source Task Order on the Navy Basic Order Agreement (BOA) to Raytheon to mature the Diode Pump laser technology to an appropriate Technology Readiness Level (TRL). Once sufficiently matured, the components/technology will be incorporated into test systems and transitioned into the Block upgrade program to undergo further system and qualification testing as part of RDTE efforts conducted in the TLA Block upgrade under Advanced Payloads (PE 0305204A Project D11A).

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603774A: *Night Vision Systems Advanced Development*	PROJECT 131: *NIGHT VISION SYS A/DEV*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Maturity of the TLA Laser	MIPR	NSWC Crane:Crane, IN	12.975	-		-		-		-	0.000	12.975	12.975
		Subtotal	12.975	-		-		-		-	0.000	12.975	12.975

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	12.975	-		-		-		-	0.000	12.975	12.975

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603774A: *Night Vision Systems Advanced Development*	PROJECT 131: *NIGHT VISION SYS A/DEV*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
HD/IR and Laser Technology Maturity																												

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603774A: *Night Vision Systems Advanced Development*	**PROJECT** 131: *NIGHT VISION SYS A/DEV*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
HD/IR and Laser Technology Maturity	3	2012	4	2012

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603774A: *Night Vision Systems Advanced Development*	PROJECT VT7: *SOLDIER MANEUVER SENSORS - ADV DEV*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
VT7: *SOLDIER MANEUVER SENSORS - ADV DEV*	-	-	10.715	-	10.715	9.066	6.208	5.260	5.193	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project supports efforts to evaluate and integrate technologies and representative prototype systems that facilitate the development of Soldier-borne sensor devices transitioning from the laboratory to operational use. Efforts focus on proving out commonality across as broader spectrum of users as possible to provide enhanced Soldier products, giving them superiority on the battlefield. Near term efforts include the integration of goggles with the weapon sights for Rapid Target Acquisition (RTA) in a realistic operating environment, thereby increasing Soldier lethality. This project also develops a Family of Weapon Sights (FWS) with fused electro-optical performance, including focal plane arrays and high resolution micro-displays. FWS enabling technologies increase product resolution, range, and imaging performance. New technologies improve Soldier lethality, survivability, reduce weight, and improve affordability, mobility and comfort to combat and training environments. In addtion this project explores insertion of technology that improves the Soldier's ability to detect Improvised Explosive Devices (IED) Detection.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: Family of Weapons Sights (FWS) ***Description:*** FWS is a family of weapon sights that utilize advances in thermal and image intensified technologies to produce Individual, Crew-Served, and Sniper weapon sights operable in-line with a day optic or in stand-alone mode. FWS includes fused multi-band imagery and rapid target acquisition with ballistic equations, providing the Soldier with improved situational awareness and more rapid target detection and engagement during day and night operations. This program will integrate smaller pixel (12 micron) uncooled long-wave infrared focal plane arrays in multiple large format sizes to improve sensitivity, clarity, and range, while simultaneously reducing the size, weight and power consumption of the Crew-Served and Sniper variants. ***FY 2013 Plans:*** Integrate 12 micron focal plane arrays into the build and testing of prototypes for the Crew-Served and Sniper variants. Additionally, an early user evaluation will be conducted on prototypes of the Individual variant developed in FY12.	-	-	8.840
Title: Improvised Explosive Devices (IED) Detection ***Description:*** In response to JUONS 0269 for the LineFinder (counter-IED), this program funds the development of technological improvements to Soldier-borne sensors that automatically detect and alert to IED related signatures. In addition it funds improvements in the Size, Weight, and Power (SWaP) of head-borne Soldier sensors including the Enhanced Night Vision Goggle (ENVG). ***FY 2013 Plans:***	-	-	1.079

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603774A: *Night Vision Systems Advanced Development*	PROJECT VT7: *SOLDIER MANEUVER SENSORS - ADV DEV*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Will initiate the integration of detection technologies to enable an Improvised Explosive Devices (IED) Detection system that can locate buried command wires and disturbed ground.			
Title: Optical Augmentation (OA) Sniper Detection ***Description:*** This Sniper Detection System is designed to detect and locate optical scopes used by snipers or optronic sight systems on the battlefield or urban zones. ***FY 2013 Plans:*** Initiate the development of a man portable sniper detection/laser warning system.	-	-	0.796
Accomplishments/Planned Programs Subtotals	-	-	10.715

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• DL67: *DL67 Night Vision Systems -Eng Dev (PE 604710 L67)*	15.021	23.946					15.011	12.603	12.889	Continuing	Continuing
• Helmet Mounted Enhanced Vision Devi: *Helmet Mounted Enhanced Vision Devices (HMEVD) (SSN K36400)*	8.098	117.442	125.917		125.917		174.861	222.725	226.581	Continuing	Continuing
• Thermal Weapon Sight (TWS): *Thermal Weapon Sight (TWS) K22900)*	249.001	186.859	82.162		82.162		95.920	141.121	143.565	Continuing	Continuing
• Sniper Night Sight (SNS): *Sniper Night Sight (SSN K41500)*	35.091	4.892	11.660		11.660			11.049	11.240	Continuing	Continuing
• Green Laser Interdiction System: *Green Laser Interdiction System (GLIS) (AD5311)*	21.434	25.356	1.014		1.014					0.000	48.820
• Sense Through The Wall (STTW): *Sense Through The Wall (STTW) (KA2300)*	24.799	57.498	6.212		6.212		15.015			0.000	103.666
• STORM: *Small Tactical Optical Interdiction Mounted (STORM) (K35110)*	8.472	10.227	20.717		20.717		20.319	20.305	15.025	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603774A: *Night Vision Systems Advanced Development*	PROJECT VT7: *SOLDIER MANEUVER SENSORS - ADV DEV*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• Laser Target Locator Systems (LTL): *Laser Target Locator Systems (LTL) (B53800)*	32.885	33.870	27.593		27.593		11.949	12.000	12.208	Continuing	Continuing

D. Acquisition Strategy

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

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603774A: *Night Vision Systems Advanced Development*	PROJECT VT7: *SOLDIER MANEUVER SENSORS - ADV DEV*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Family of Weapon Sights (FWS)	Various	ACC:ABERDEEN, MD	-	-		8.185		-		8.185	0.000	8.185	8.275
Improvised Explosive Devices (IED) Detection	MIPR	ACC:ABERDEEN, MD	-	-		0.938		-		0.938	0.000	0.938	1.728
Optical Augmentation (OA) Sniper Detect	Various	TBD:TBD	-	-		0.740		-		0.740	0.000	0.740	0.000
		Subtotal	-	-		9.863		-		9.863	0.000	9.863	10.003

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Improvised Explosive Devices (IED) Detection	Various	NVESD:FT BELVOIR, VA	-	-		0.147		-		0.147	0.000	0.147	0.000
Family of Weapon Sights (FWS)	MIPR	NVESD:FT BELVOIR, VA	-	-		0.405		-		0.405	0.000	0.405	0.000
Optical Augmentation (OA) Sniper Detect	Various	NVESD:FT BELVOIR, VA	-	-		0.050		-		0.050	0.000	0.050	0.000
		Subtotal	-	-		0.602		-		0.602	0.000	0.602	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FWS Individual Early User Assessment (EUA)	Various	TBD:TBD	-	-		0.250		-		0.250	0.000	0.250	0.000
		Subtotal	-	-		0.250		-		0.250	0.000	0.250	0.000

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		10.715		-		10.715	0.000	10.715	10.003

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603774A: *Night Vision Systems Advanced Development*	PROJECT VT7: *SOLDIER MANEUVER SENSORS - ADV DEV*	

	Total Prior Years Cost	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603774A: *Night Vision Systems Advanced Development*	PROJECT VT7: *SOLDIER MANEUVER SENSORS - ADV DEV*

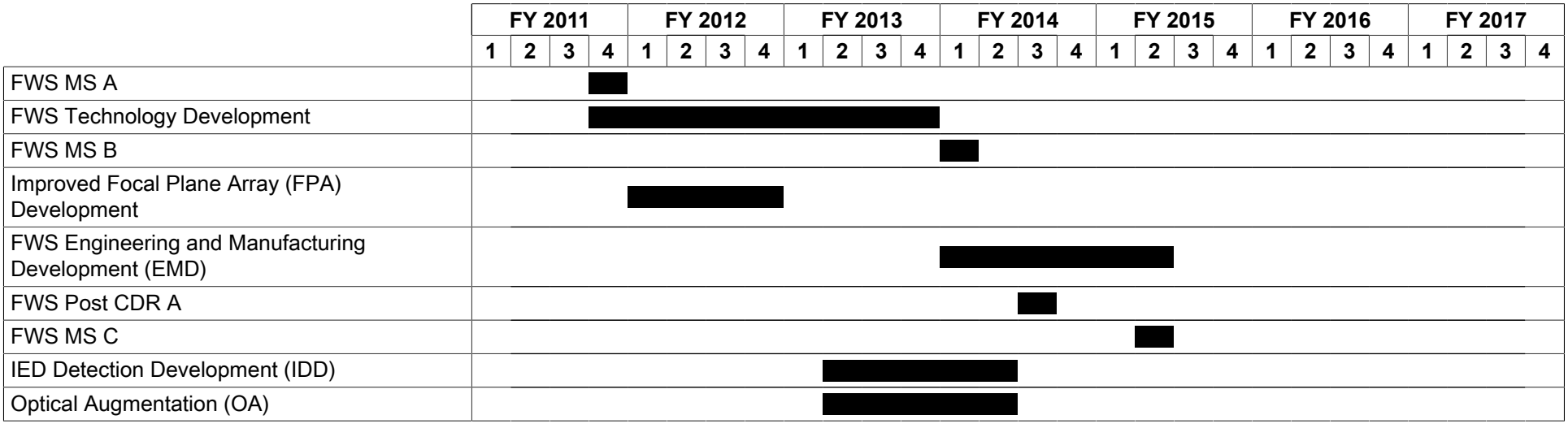

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603774A: *Night Vision Systems Advanced Development*	**PROJECT** VT7: *SOLDIER MANEUVER SENSORS - ADV DEV*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
FWS MS A	4	2011	4	2011
FWS Technology Development	4	2011	4	2013
FWS MS B	1	2014	1	2014
Improved Focal Plane Array (FPA) Development	1	2012	4	2012
FWS Engineering and Manufacturing Development (EMD)	1	2014	2	2015
FWS Post CDR A	3	2014	3	2014
FWS MS C	2	2015	2	2015
IED Detection Development (IDD)	2	2013	2	2014
Optical Augmentation (OA)	2	2013	2	2014

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603779A: *Environmental Quality Technology - Dem/Val*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	3.622	5.023	4.631	-	4.631	4.755	4.562	4.197	4.210	Continuing	Continuing
035: *NATIONAL DEFENSE CNTR FOR ENVIRO EXCELLENCE-NDCEE*	3.622	4.591	4.232	-	4.232	4.324	4.562	3.880	3.899	Continuing	Continuing
04E: *ENVIRONMENTAL RESTORATION TECH VALIDATION*	-	0.432	0.399	-	0.399	0.431	-	0.317	0.311	Continuing	Continuing

Note

FY 2013 Funds $.477M realigned to higher priority requirements.

A. Mission Description and Budget Item Justification

There is a broad application potential for environmental quality technology (EQT) to be applied to multiple Army weapon systems and installations. However, technology must be demonstrated and validated (total ownership cost and performance data identified) before potential users will consider exploiting it. Therefore, this program element includes projects focused on validating the general military utility or cost reduction potential of technology when applied to different types of infrastructure, military equipment or techniques. It may include validations and proof-of-principle demonstrations in field exercises to evaluate upgrades or provide new operational capabilities. The validation of technologies will be in as realistic an operating environment as possible to assess performance or cost reduction potential. EQT demonstration/validation is systemic; i.e., applies to a class of systems (e.g., tanks or aircraft) or to a Department of Army-wide, multiple site/installation problem (e.g., unexploded ordnance detection and discrimination). This program will address, and eventually resource, programs in each of the environmental quality technology pillars (restoration, conservation, compliance, and pollution prevention). Work must be endorsed by potential users and supported by a state-of-the-art assessment (i.e., "technology is heading for user to implement").

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army					DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*		R-1 ITEM NOMENCLATURE PE 0603779A: *Environmental Quality Technology - Dem/Val*			
B. Program Change Summary ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**
Previous President's Budget	4.695	4.946	5.108	-	5.108
Current President's Budget	3.622	5.023	4.631	-	4.631
Total Adjustments	-1.073	0.077	-0.477	-	-0.477
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.905	-			
• SBIR/STTR Transfer	-0.140	-			
• Adjustments to Budget Years	-	-	-0.477	-	-0.477
• Other Adjustments 1	-0.028	0.077	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603779A: *Environmental Quality Technology - Dem/Val*	PROJECT 035: *NATIONAL DEFENSE CNTR FOR ENVIRO EXCELLENCE-NDCEE*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
035: *NATIONAL DEFENSE CNTR FOR ENVIRO EXCELLENCE-NDCEE*	3.622	4.591	4.232	-	4.232	4.324	4.562	3.880	3.899	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The National Defense Center for Environmental Excellence (NDCEE) was established by Congress in 1990 with a directive to "serve as a national leadership organization to address high priority environmental problems for the Department of Defense (DoD), other government organizations, and the industrial community." The NDCEE Program is a national resource for developing and disseminating advanced environmental technologies. The NDCEE is used to demonstrate environmentally acceptable technology to industry; validate new technology prior to transferring that technology; and assist in the training of potential users as part of that technology transfer process. The NDCEE is a DoD resource for environmental quality management and technology validation. This program is managed by the Army on behalf of the Office of the Assistant Deputy Under Secretary of Defense for Environment (ADUSD-E). In May 2008, the program name was redesignated from the National Defense for Environmental Excellence to the National Defense Center for Energy and Environment to ensure that the Center's mission recognizes and addresses the strategic interdependence of energy and environmental technology requirements within an overall sustainability framework in support of our installations, weapons systems and war fighters. This name change also directly supports the DoD's proactive implementation of Executive Order 13423, "Strengthening Federal Environmental, Energy and Transportation Management."

Our broadly encompassing and growing mobile, personal and stationary advanced energy technology requirements include infrastructure, alternative and synthetic fuels, surety, renewables, storage, distribution, advanced power, micro-grids, transportation, systems integration and others. Further, to train as we fight, validated energy and environmental technologies need to be available, and implemented at our power projection bases and training areas. The NDCEE will continue to research, demonstrate and transfer these technologies supporting our integrated Environment, Safety and Occupational Health (ESOH) and energy objectives with full consideration of the triple bottom line of mission, environment and community.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Management and operations of the NDCEE by the prime contractor.	1.325	1.300	1.468
Articles:	0	0	
Description: Management and operations of the NDCEE by the prime contractor.			
FY 2011 Accomplishments: Management and operations of the NDCEE by the prime contractor.			
FY 2012 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603779A: *Environmental Quality Technology - Dem/Val*	**PROJECT** 035: *NATIONAL DEFENSE CNTR FOR ENVIRO EXCELLENCE-NDCEE*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Management and operations of the NDCEE by the prime contractor. ***FY 2013 Plans:*** Management and operations of the NDCEE by the prime contractor.			
Title: Industrial base integration, operation of the NDCEE environmental technology facility, and environmental information analysis. ***Articles:*** ***Description:*** Industrial base integration, operation of the NDCEE environmental technology facility, and environmental information analysis. ***FY 2011 Accomplishments:*** Industrial base integration, operation of the NDCEE environmental technology facility, and environmental information analysis. ***FY 2012 Plans:*** Industrial base integration, operation of the NDCEE environmental technology facility, and environmental information analysis. ***FY 2013 Plans:*** Industrial base integration, operation of the NDCEE environmental technology facility, and environmental information analysis.	0.500 0	0.500 0	0.500
Title: Conduct demonstration/validation of environmentally acceptable technologies that enhance military readiness and reduce production, operating, and/or disposal costs. ***Articles:*** ***Description:*** Conduct demonstration/validation of environmentally acceptable technologies that enhance military readiness and reduce production, operating, and/or disposal costs. ***FY 2011 Accomplishments:*** Conducted demonstration/validation of environmentally acceptable technologies that enhance military readiness and reduce production, operating, and/or disposal costs. ***FY 2012 Plans:*** Conduct demonstration/validation of environmentally acceptable technologies that enhance military readiness and reduce production, operating, and/or disposal costs. ***FY 2013 Plans:***	1.530 0	2.556 0	1.859

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603779A: *Environmental Quality Technology - Dem/Val*	PROJECT 035: *NATIONAL DEFENSE CNTR FOR ENVIRO EXCELLENCE-NDCEE*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Will conduct demonstration/validation of environmentally acceptable technologies that enhance military readiness and reduce production, operating, and/or disposal costs.			
Title: NDCEE Government program management during contract negotiations and execution and during project formulation, execution, and technology transfer. ***Articles:*** ***Description:*** NDCEE Government program management during contract negotiations and execution and during project formulation, execution, and technology transfer. ***FY 2011 Accomplishments:*** NDCEE Government program management during contract negotiations and execution and during project formulation, execution, and technology transfer. ***FY 2012 Plans:*** NDCEE Government program management during contract negotiations and execution and during project formulation, execution, and technology transfer. ***FY 2013 Plans:*** NDCEE Government program management during contract negotiations and execution and during project formulation, execution, and technology transfer.	0.267 0	0.235 0	0.405
Accomplishments/Planned Programs Subtotals	3.622	4.591	4.232

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

The NDCEE is a national asset focused on DoD applications that include technology transfer to appropriate DoD organizations. The NDCEE fosters an outreach program to describe its products and capabilities that include publication of results and participation in professional meetings, symposia, conferences, and appropriate coordination with industry. The management strategy for the NDCEE centers on a DoD Executive Advisory Board (EAB) chaired by the DoD NDCEE Executive Agent on behalf of the ADUSD (ESOH) and composed of senior DoD leadership to oversee NDCEE operations. The EAB is supported by an EAB Working Group (EABWG) that includes staff members from each of the offices represented on the EAB. The EABWG coordinates all NDCEE activities and reports back to the EAB Principals. The EABWG is, in turn, supported by a Technical Working Group that addresses the details of NDCEE program execution. The contracting strategy of the NDCEE is based on using an NDCEE Contracting Officer's Representative to validate all the contractual portions of the NDCEE and by technical monitors (TM) to oversee the technical aspects of each contracted task. A prime contractor operates NDCEE test facility(s) to validate environmentally compatible technologies on a representative

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
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"shop floor". The NDCEE accounts for and conducts work for: (1) direct funded Army tasks; (2) reimbursable tasks from within DoD and from other Government agencies; and (3) Congressionally directed and funded tasks.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603779A: *Environmental Quality Technology - Dem/Val*	PROJECT 035: *NATIONAL DEFENSE CNTR FOR ENVIRO EXCELLENCE-NDCEE*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	MIPR	RDECOM:Aberdeen, MD	21.847	0.508		0.405		-		0.405	Continuing	Continuing	Continuing
		Subtotal	21.847	0.508		0.405		-		0.405			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
To Be Determined	TBD	To Be Determined:To Be Determined	8.797	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	8.797	-		-		-		-			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Data	Various	Concurrent Technologies Corporation (CTC):Johnstown, PA	19.367	1.780		1.968		-		1.968	Continuing	Continuing	Continuing
		Subtotal	19.367	1.780		1.968		-		1.968			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Testing and Evaluation	Various	Concurrent Technologies Corp.:Johnstown, PA	21.889	2.303		1.859		-		1.859	Continuing	Continuing	Continuing
		Subtotal	21.889	2.303		1.859		-		1.859			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603779A: *Environmental Quality Technology - Dem/Val*	PROJECT 035: *NATIONAL DEFENSE CNTR FOR ENVIRO EXCELLENCE-NDCEE*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	71.900	4.591		4.232		-		4.232			

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603779A: *Environmental Quality Technology - Dem/Val*	PROJECT 04E: *ENVIRONMENTAL RESTORATION TECH VALIDATION*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
04E: *ENVIRONMENTAL RESTORATION TECH VALIDATION*	-	0.432	0.399	-	0.399	0.431	-	0.317	0.311	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Environmental Information Technology Management (EITM) includes support for Knowledge Based Corporate Reporting system (KBCRS) and Defense Environmental Network Information Exchange (DENIX). This new request for research, development, test and evaluation (RDTE) is to enhance KBCRS to a net-centric all services transactional system of record and reporting tool set. Also includes EITM upgrades to incorporate new security and other requirements.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Environmental Restoration Technology Validation	-	0.432	0.399
Articles:		0	
Description: Funding is provided for the following effort			
FY 2012 Plans: To provide system upgrades to support users with reporting requirements, for example the Annual Report to Congress.			
FY 2013 Plans: To provide system upgrades to support users with reporting requirements, for example the Annual Report to Congress.			
Accomplishments/Planned Programs Subtotals	-	0.432	0.399

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

The U.S. Army's Environmental Quality Technology (EQT) program provides new or innovative methods, equipment, materials, and/or protocols to reduce the total cost of Army operations and/or allow training operations to continue with minimum adverse impact on the environment that result from base operations and weapons system maintenance/support activities. The restoration demonstration/validation portion of EQT is designed to support Army-wide stewardship of its lands and facilities by focusing on the transfer of potential technological solutions to restoration problems on Army installations and to industry to support restoration of Army lands to their former or redesignated use. The restoration EQT demonstration/validation program goal is to support installation needs through exploitation of technology without compromising readiness or training. It accomplishes this goal in two steps. First, Technology Teams identify, prioritize, and justify technological solutions to Army high-priority environmental quality technology restoration requirements. Second, based on Department of the Army and Office of the Secretary of Defense guidance,

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603779A: *Environmental Quality Technology - Dem/Val*	PROJECT 04E: *ENVIRONMENTAL RESTORATION TECH VALIDATION*

funding authority is sought through the Army's planning, programming, and budgeting process. The EQT management oversight process consists of an Environmental Technology Technical Council (ETTC; a program management council), an Environmental Technology Integrated Process Team, (a working group supporting the ETTC) and, in this case, a Restoration Technology Team (composed of experts in restoration technology and in Army user needs).

This program is leveraging resources and knowledge gained from the Strategic Environmental Research and Development Program (SERDP), the Environmental Security Technology Certification Program (ESTCP) and the National Defense Center for Environmental Excellence (NDCEE).

E. Performance Metrics

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

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	200.732	185.819	278.018	-	278.018	82.251	76.890	142.408	71.000	Continuing	Continuing
367: *WIN-T INCREMENT 2 - INITIAL NETWORKING-ON-THE-MOVE*	16.793	10.131	2.786	-	2.786	5.999	0.914	21.508	-	Continuing	Continuing
372: *WIN-T INCREMENT 3 - FULL NETWORKING ON THE MOVE*	167.339	175.688	275.232	-	275.232	76.252	75.976	120.900	71.000	Continuing	Continuing
DU7: *HOST BASED SECURITY SYSTEM (HBSS)*	16.600	-	-	-	-	-	-	-	-	Continuing	Continuing

Note

FY13 reflects updated Inc 3 requirements.

A. Mission Description and Budget Item Justification

The Defense Acquisition Executive (DAE), through the Nunn-McCurdy certification process, certified a restructured WIN-T program on June 5, 2007. The certification Acquisition Decision Memorandum (ADM) stated that the Army will restructure the WIN-T Major Defense Acquisition Program (MDAP) to absorb the former Joint Network Node (JNN) Network program. It further stated that the restructured program will consist of four Increments: Inc 1, Inc 2, Inc 3, and Inc 4.

WIN-T is key to the Army's Network Modernization program. The WIN-T program's focus is to design, develop, produce and field the Future Modular Force transport network, while leveraging mature technologies that can enhance the Current Modular Force to operate in an emerging noncontiguous environment.

Inc 2 FY 2013 funds continue the Full Rate Production (FRP) contract to include government test support for New Equipment Training, Cold Region Test, Force Development Test and Experimentation (FDT&E), Initial Operational Test (IOT), First Unit Equipped (FUE) as well as the support required for the Full Rate Production Decision Review.

Inc 3 FY 2013 funds continue the Engineering Manufacturing Development phase and Platform Integration to include a Full Critical Design Review. Increment 3 will continue with testing and Modeling and Simulation activities.

The HBSS is a flexible, commercial-off-the-shelf (COTS)-based application which monitors, detects, and counters against known cyber-threats to the DoD Enterprise, using an intrusion prevention system and host firewall.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army					DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*			R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*		
B. Program Change Summary ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**
Previous President's Budget	190.903	297.955	275.192	-	275.192
Current President's Budget	200.732	185.819	278.018	-	278.018
Total Adjustments	9.829	-112.136	2.826	-	2.826
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	9.829	-112.136	2.826	-	2.826

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT 367: *WIN-T INCREMENT 2 -INITIAL NETWORKING-ON-THE-MOVE*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
367: *WIN-T INCREMENT 2 - INITIAL NETWORKING-ON-THE-MOVE*	16.793	10.131	2.786	-	2.786	5.999	0.914	21.508	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Increment 2 (Inc 2) provides commercial and military band satellite communications to Division, Brigade, Battalion and Company, while also providing On-The-Move (OTM) capability and a mobile infrastructure; it also provides SATCOM OTM extended to Company level. It supports limited collaboration and mission planning. It enables distribution of information via voice, data and real-time video from ground-to-ground and ground-to-satellite communications. Inc 2 extends wide area/Global Information Grid network connectivity to the lower tactical subnets at the Company level. It capitalizes on Commercial Off the Shelf/Government Off the Shelf (COTS/ GOTS) mature technologies and adds mobility to Brigade Combat Teams (BCTs), Battalions and Companies while enabling planning, monitoring, controlling and prioritizing (PMCP) to DIV HQs and/or the Brigade network. Inc 2 is key to the Army's Network Modernization program. Inc 3 mature technologies will continue to be provided to Inc 2.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Test and Evaluation	16.055	9.393	2.583
Articles:	0	0	
Description: Test and Modeling and Simulation activities. ***FY 2011 Accomplishments:*** WIN-T Increment 2 will conduct Production Qualification Test - Contractor (PQT-C), Production Qualification Test - Government (PQT-G), and Logistics Demonstration as well as preparation for Initial Operational Test (IOT). ***FY 2012 Plans:*** WIN-T Increment 2 will provide government test support for New Equipment Training, Cold Region Test, Force Development Test and Experimentation (FDT&E), Initial Operational Test (IOT), First Unit Equipped (FUE) as well as the support required for the Full Rate Production Decision Review. ***FY 2013 Plans:*** WIN-T Increment 2 will support follow-on production award and Initial Operational Capability (IOC).			
Title: Management Services	0.738	0.738	0.203
Articles:	0	0	

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT 367: *WIN-T INCREMENT 2 -INITIAL NETWORKING-ON-THE-MOVE*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Program Management Support ***FY 2011 Accomplishments:*** Program Management Support and Small Business Innovative Research (SBBR)/ Small Business Technology Transfer (STTR) support. ***FY 2012 Plans:*** Program Management support. ***FY 2013 Plans:*** Program Management support.			
Accomplishments/Planned Programs Subtotals	16.793	10.131	2.786

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• WIN-T Inc 2: *Procurement*	941.401	827.237	785.933		785.933		1,098.451	330.869	286.181	Continuing	Continuing

D. Acquisition Strategy

The Defense Acquisition Executive (DAE), through the Nunn-McCurdy certification process, certified a restructured WIN-T program on June 5, 2007. The certification Acquisition Decision Memorandum (ADM) stated that the Army will restructure the WIN-T Major Defense Acquisition Program (MDAP) to absorb the former Joint Network Node (JNN) Network program. It further stated that the restructured program will consist of four Increments: Incs 1, 2, 3, and 4.

Inc 2 has completed Limited User Testing (LUT) and a Production Readiness Review (PRR). The program obtained MS C approval in February 2010, and awarded a Low Rate Initial Production Letter contract for LRIP Lot 1A (2 BCTs/1 Div)in March 2010. The March 09, 2010 Inc 2 ADM authorizes the Army to procure the first LRIP Lot 1A communication nodes to support the IOT. September 03, 2010 Army was authorized to procure the second LRIP Lots 1B (4 BCTs) and 2 (2 BCTs) upon definitization of the contract. The initial production contract was definitized on December 30, 2010 and Lots 1A and 2 were procured in January 28, 2011.

Inc 2 fields to 54 BCT and 10 Div HQs.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT 367: *WIN-T INCREMENT 2 -INITIAL NETWORKING-ON-THE-MOVE*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	Various:Various	25.878	0.738		0.203		-		0.203	1.921	28.740	Continuing
		Subtotal	25.878	0.738		0.203		-		0.203	1.921	28.740	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Platform Integration	Various	Various:Various	19.641	-		-		-		-	Continuing	Continuing	Continuing
WIN-T EMD Contract	Various	General Dynamics C4 Systems Inc:Taunton, MA	138.598	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	158.239	-		-		-		-			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Engineering Services adn Research Studies	Various	General Dynamics C4 Systems Inc:Taunton, MA	7.086	-		-		-		-	0.000	7.086	0.000
		Subtotal	7.086	-		-		-		-	0.000	7.086	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Modeling & Simulation	Various	Various:Various	51.709	9.393		2.583		-		2.583	26.500	90.185	Continuing
		Subtotal	51.709	9.393		2.583		-		2.583	26.500	90.185	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT 367: *WIN-T INCREMENT 2 -INITIAL NETWORKING-ON-THE-MOVE*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	242.912	10.131		2.786		-		2.786			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT 367: *WIN-T INCREMENT 2 -INITIAL NETWORKING-ON-THE-MOVE*

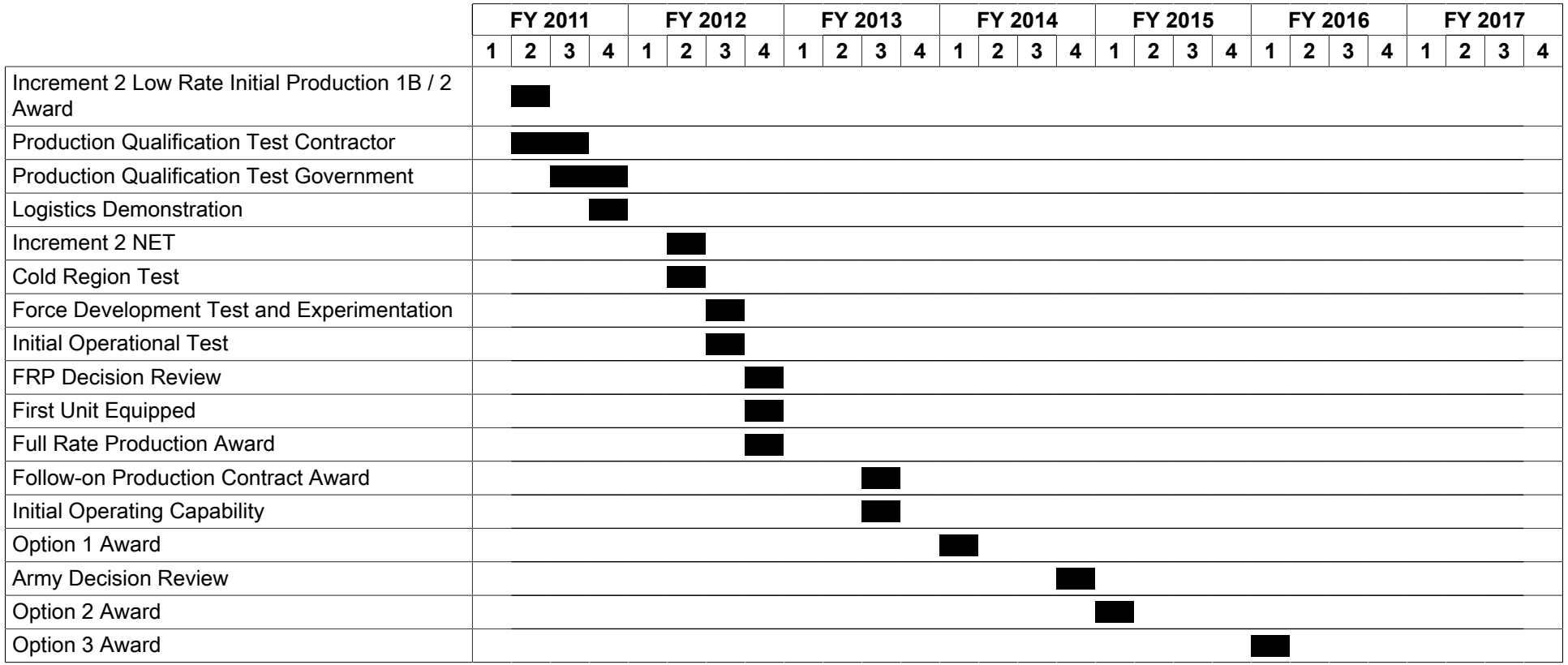

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	**PROJECT** 367: *WIN-T INCREMENT 2 -INITIAL NETWORKING-ON-THE-MOVE*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Increment 2 Low Rate Initial Production 1B / 2 Award	2	2011	2	2011
Production Qualification Test Contractor	2	2011	3	2011
Production Qualification Test Government	3	2011	4	2011
Logistics Demonstration	4	2011	4	2011
Increment 2 NET	2	2012	2	2012
Cold Region Test	2	2012	2	2012
Force Development Test and Experimentation	3	2012	3	2012
Initial Operational Test	3	2012	3	2012
FRP Decision Review	4	2012	4	2012
First Unit Equipped	4	2012	4	2012
Full Rate Production Award	4	2012	4	2012
Follow-on Production Contract Award	3	2013	3	2013
Initial Operating Capability	3	2013	3	2013
Option 1 Award	1	2014	1	2014
Army Decision Review	4	2014	4	2014
Option 2 Award	1	2015	1	2015
Option 3 Award	1	2016	1	2016

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT 372: *WIN-T INCREMENT 3 - FULL NETWORKING ON THE MOVE*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
372: *WIN-T INCREMENT 3 - FULL NETWORKING ON THE MOVE*	167.339	175.688	275.232	-	275.232	76.252	75.976	120.900	71.000	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Warfighter Information Network - Tactical (WIN-T) Increment 3 (Inc 3) is the Army's communications system for reliable, secure, and seamless video, data, imagery, and voice services that enables decisive combat actions. WIN-T Inc 3 is key to the Army's Network Modernization program. It will be focused on moving information in a manner that supports commanders, staffs, functional units, and capabilities-based formations - all mobile, agile, lethal, sustainable, and deployable. It will be optimized for offensive and Joint operations so that the theater combatant commander will have the capability to perform multiple missions simultaneously. Inc 3 will provide the Commander/user within the tactical area of responsibility a mobile infrastructure that passes relevant information effectively and efficiently for combined arms capabilities in all required terrain and environmental conditions. WIN-T is implementing the Global Information Grid (GIG) NetCentric Vision including Information Assurance and Network Centric Enterprise Services. In addition, WIN-T is a key component of the tactical GIG. WIN-T provides dynamic bandwidth and enabling formations On-The-Move (OTM). Inc 3 develops the mature technologies which will be inserted into Inc 2. Inc 3 introduces the aerial tier to complete the 3-tier objective architecture.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Product Development	146.361	153.980	235.670
Articles:	0	0	
Description: Increment 3 Engineering Manufacturing Development continues development of Inc 3 system, hardware and software development, prototype manufacturing of test assets for the Inc 3 system as well as Inc 2 technical inserts and an aerial tier. ***FY 2011 Accomplishments:*** WIN-T Increment 3 continues the Engineering Manufacturing Development phase and Platform Integration. ***FY 2012 Plans:*** WIN-T Increment 3 continues the Engineering Manufacturing Development phase and Platform Integration and fund preparation for the Inc 3A TSS CDR. ***FY 2013 Plans:*** WIN-T Increment 3 continues the Engineering Manufacturing Development phase and Platform Integration and fund preparation for the Inc 3B Critical Design Review (CDR) and Inc 3A Developmental Test/Limited User Test.			
Title: Support Cost	4.632	4.714	4.799

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT 372: *WIN-T INCREMENT 3 - FULL NETWORKING ON THE MOVE*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Articles:	0	0	
Description: Technical Enginnering Services and Research Studies ***FY 2011 Accomplishments:*** Technical Enginnering Services and Research Studies ***FY 2012 Plans:*** Technical Enginnering Services and Research Studies ***FY 2013 Plans:*** Technical Enginnering Services and Research Studies			
Title: Test and Evaluation	1.103	0.718	11.119
Articles:	0	0	
Description: Testing and Modeling and Simulation ***FY 2011 Accomplishments:*** WIN-T Increment 3 will continue with testing and Modeling and Simulation activites. ***FY 2012 Plans:*** WIN-T Increment 3 will continue with testing and Modeling and Simulation activites and fund preparation for the Inc 3A TSS CDR. ***FY 2013 Plans:*** WIN-T Increment 3 will continue with testing and Modeling and Simulation activites and conduct the Inc 3A TSS CDR and fund preparation for the Inc 3B Critical Design Review (CDR) and Inc 3A Developmental Test/Limited User Test.			
Title: Management Services	15.243	16.276	23.644
Articles:	0	0	
Description: Program Management Support and Small Business Innovative Research (SBBR)/ Small Business Technology Transfer (STTR) support. ***FY 2011 Accomplishments:*** Program Management Support and Small Business Innovative Research (SBBR)/ Small Business Technology Transfer (STTR) support. ***FY 2012 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT 372: *WIN-T INCREMENT 3 - FULL NETWORKING ON THE MOVE*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Program Management Support. ***FY 2013 Plans:*** Program Management Support and Small Business Innovative Research (SBBR)/ Small Business Technology Transfer (STTR) support.			
Accomplishments/Planned Programs Subtotals	167.339	175.688	275.232

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

The Defense Acquisition Executive (DAE), through the Nunn-McCurdy certification process, certified a restructured WIN-T program on June 5, 2007. The certification Acquisition Decision Memorandum (ADM) stated that the Army will restructure the WIN-T Major Defense Acquisition Program (MDAP) to absorb the former Joint Network Node (JNN) Network program. It further stated that the restructured program will consist of four Increments: Incs 1, 2, 3, and 4.

The ADM of May 18, 2009 approved an initial Acquisition Program Baseline (APB) for Inc 3 and noted known changes to the program including elimination of Future Combat Systems (FCS) manned ground vehicles (MGVs), liquid cooled radios, and, subsequently, the termination of Class IV Unmanned Aerial Vehicles (UAV). A follow-on Increment 3 ADM on July 31, 2009 permitted the obligation of remaining FY2009 Research, Development, Test and Evaluation (RDT&E) funds to resource EMD efforts including development of the Joint Command, Control, Communications, Computer, Intelligence, Surveillance and Reconnaissance radio to support the air-tier capability. The revised Acquisition Program Baseline (APB) as directed in the ADM aligns with the Department's FY 2010 and FY 2011 President's Budgets as well as the cancellation of the Future Combat Systems (FCS) manned ground vehicle component. This revised ADM was approved on October 22, 2010.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT 372: *WIN-T INCREMENT 3 - FULL NETWORKING ON THE MOVE*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	Various:Various	73.532	16.276		23.644		-		23.644	Continuing	Continuing	Continuing
		Subtotal	73.532	16.276		23.644		-		23.644			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Increment 3 System Development and Demonstration	Various	General Dynamics C4 Systems Inc:Taunton, MA	659.050	142.638		203.281		-		203.281	Continuing	Continuing	Continuing
Inc 3 Data Rights	Various	Harris GCSD:Melbourne, FL	-	4.417		-		-		-	0.000	4.417	0.000
Platform Integration	Various	Various:Various	5.800	6.925		32.389		-		32.389	Continuing	Continuing	Continuing
		Subtotal	664.850	153.980		235.670		-		235.670			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Engineering Services and Research Studies	Various	General Dynamics C4 Systems Inc:Taunton, MA	18.249	4.714		4.799		-		4.799	Continuing	Continuing	Continuing
		Subtotal	18.249	4.714		4.799		-		4.799			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Testing and Modeling & Simulation	Various	Various:Various	3.108	0.718		11.119		-		11.119	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT 372: *WIN-T INCREMENT 3 - FULL NETWORKING ON THE MOVE*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	3.108	0.718		11.119		-		11.119			

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	759.739	175.688		275.232		-		275.232			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	**PROJECT** 372: *WIN-T INCREMENT 3 - FULL NETWORKING ON THE MOVE*

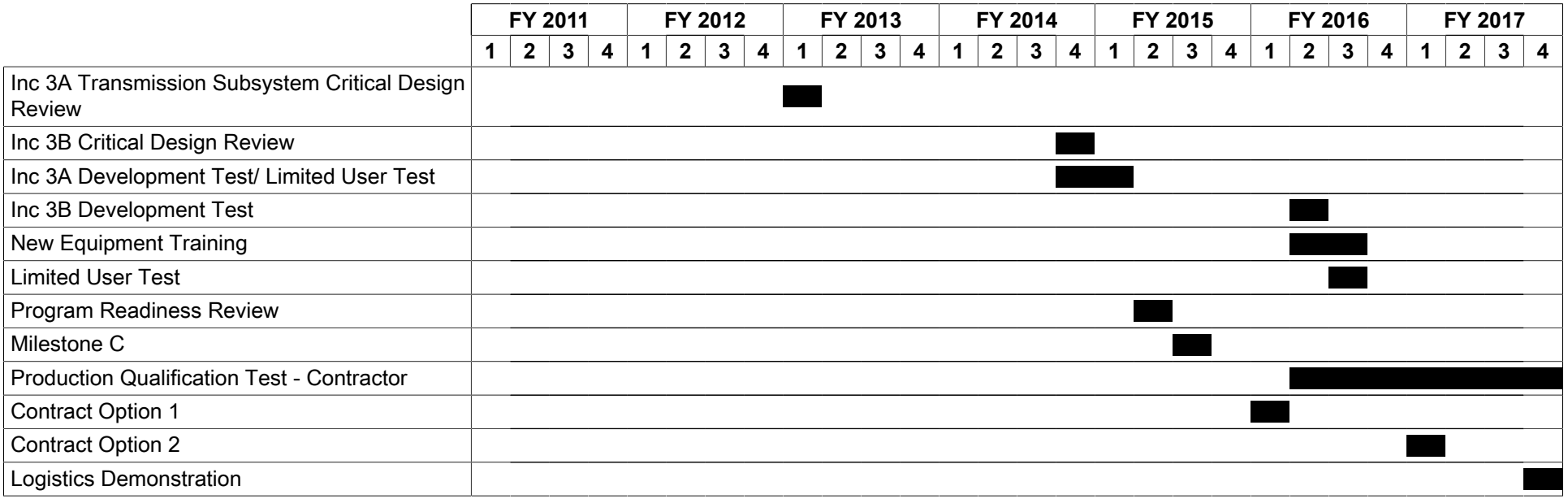

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	**PROJECT** 372: *WIN-T INCREMENT 3 - FULL NETWORKING ON THE MOVE*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Inc 3A Transmission Subsystem Critical Design Review	1	2013	1	2013
Inc 3B Critical Design Review	4	2014	4	2014
Inc 3A Development Test/ Limited User Test	4	2014	1	2015
Inc 3B Development Test	2	2016	2	2016
New Equipment Training	2	2016	3	2016
Limited User Test	3	2016	3	2016
Program Readiness Review	2	2015	2	2015
Milestone C	3	2015	3	2015
Production Qualification Test - Contractor	2	2016	4	2017
Contract Option 1	1	2016	1	2016
Contract Option 2	1	2017	1	2017
Logistics Demonstration	4	2017	4	2017

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT DU7: *HOST BASED SECURITY SYSTEM (HBSS)*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
DU7: *HOST BASED SECURITY SYSTEM (HBSS)*	16.600	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The HBSS is a flexible, commercial-off-the-shelf (COTS)-based application which monitors, detects, and counters against known cyber-threats to the DoD Enterprise, using an intrusion prevention system and host firewall.

The Joint Task Force Global Network Operations (JTF-GNO) mandates McAfee ePolicy Orchestrator (ePO), an enterprise-class, open architecture client server system, to centrally manage security; the ePO server architecture will be implemented at the Enterprise and Tactical levels. PEO C3T will test, train, deploy, and set conditions to maintain the HBSS software suite on all Mission Command Networks and Systems (MCNS), where the Army is the executive agent on NIPR, SIPR and CX-I.

PEO C3T will manage the funding for tactical implementation of HBSS for the Army's Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems. C4ISR systems requiring HBSS implementation are owned by five Army PEOs and two Joint PEOs. Within PEO C3T, Project Manager Warfighter Information Network-Tactical (PM WIN-T) is leading the procurement effort on the ePO servers and virtual client installation

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: HBSS	16.600	-	-
Articles:	0		
Description: Program Support Costs			
FY 2011 Accomplishments: Funding in support of HBSS implementation and fielding exercises			
Accomplishments/Planned Programs Subtotals	16.600	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	**PROJECT** DU7: *HOST BASED SECURITY SYSTEM (HBSS)*

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT DU7: *HOST BASED SECURITY SYSTEM (HBSS)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CONTRACTOR SUPPORT	C/T&M	PEO C3T:ABERDEEN PROVING GROUND, MD	16.600	-		-		-		-	0.000	16.600	0.000
		Subtotal	16.600	-		-		-		-	0.000	16.600	0.000

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	16.600	-		-		-		-	0.000	16.600	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	PROJECT DU7: *HOST BASED SECURITY SYSTEM (HBSS)*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
IMPLEMENTATION OF HBSS																												

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603782A: *WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL*	**PROJECT** DU7: *HOST BASED SECURITY SYSTEM (HBSS)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
IMPLEMENTATION OF HBSS	4	2011	4	2012

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 ITEM NOMENCLATURE PE 0603790A: *NATO Research and Development*						
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	4.879	4.839	4.961	-	4.961	5.599	5.534	5.061	5.146	Continuing	Continuing
691: *NATO RSCH & DEVEL*	4.879	4.839	4.961	-	4.961	5.599	5.534	5.061	5.146	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program implements the provisions of Title 10 U.S. Code, Section 2350a, Cooperative Research and Development (R&D) Projects: Allied Countries. The objective is to improve, through the application of emerging technologies, the conventional defense capabilities of the United States and our cooperative partners, including the North Atlantic Treaty Organization (NATO), U.S. major non-NATO allies and Friendly Foreign countries. Through technology sharing and joint equipment development these projects help reduce U.S. acquisition costs and leverage important technologies for the Army Transformation and the development of the Future Combat system. Cooperative efforts also improve multinational force compatibility with potential coalition partners through the development and use of similar equipment and improved interfaces. The program focuses specifically on international cooperative technology demonstration, validation, and interoperability of Army weapon and command, control, communications and information (C3I) systems, including the NATO Defense Against Terrorism initiatives. Projects are implemented through international agreements with foreign partners that define scope, cost and work sharing arrangements, management, contracting, security, data protection and third party transfers. Funds are used to pay for only the U.S. work share that occurs in the United States at U.S. Government and U.S. contractors facilities.

B. Program Change Summary ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**
Previous President's Budget	5.060	4.765	4.908	-	4.908
Current President's Budget	4.879	4.839	4.961	-	4.961
Total Adjustments	-0.181	0.074	0.053	-	0.053
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.152	-			
• Adjustments to Budget Years	-	-	0.053	-	0.053
• Other Adjustments 1	-0.029	0.074	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603790A: *NATO Research and Development*	PROJECT 691: *NATO RSCH & DEVEL*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
691: *NATO RSCH & DEVEL*	4.879	4.839	4.961	-	4.961	5.599	5.534	5.061	5.146	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This program implements the provisions of Title 10 U.S. Code, Section 2350a, Cooperative Research and Development (R&D) Projects: Allied Countries. The objective is to improve, through the application of emerging technologies, the conventional defense capabilities of the United States and our cooperative partners, including the North Atlantic Treaty Organization (NATO), U.S. major non-NATO allies and Friendly Foreign countries. Through technology sharing and joint equipment development these projects help reduce U.S. acquisition costs and leverage important technologies for the Army Transformation and the development of the Future Combat system. Cooperative efforts also improve multinational force compatibility with potential coalition partners through the development and use of similar equipment and improved interfaces. The program focuses specifically on international cooperative technology demonstration, validation, and interoperability of Army weapon and command, control, communications and information (C3I) systems, including the NATO Defense Against Terrorism initiatives. Projects are implemented through international agreements with foreign partners that define scope, cost and work sharing arrangements, management, contracting, security, data protection and third party transfers. Funds are used to pay for only the U.S. work share that occurs in the United States at U.S. Government and U.S. contractors facilities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Scientific and Technology Enterprise Management	0.840	0.860	0.897
Articles:	0	0	

Description: Scientific and Technology Enterprise Management (STEM)/International Online (IOL) Development and Implementation NATO/International Cooperative R&D (AR 70-41) and International Acquisition (AR 70-1, AR 70-3)

FY 2011 Accomplishments:

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 funds the travel costs and administrative support (studies, analysis, interpretation, equipment, etc.) required to participate in internationally, 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.

FY 2012 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603790A: *NATO Research and Development*	PROJECT 691: *NATO RSCH & DEVEL*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
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 funds the travel costs and administrative support (studies, analysis, interpretation, equipment, etc.) required to participate in internationally, 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. NA ***FY 2013 Plans:*** 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 will fund the travel costs and administrative support (studies, analysis, interpretation, equipment, etc.) required to participate in internationally, 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.			
Title: Multilateral Interoperability Program	0.667	0.677	0.693
Articles:	0	0	
Description: Multilateral Interoperability Program (MIP) (Partners: Germany, France, United Kingdom, Canada, Italy): Continued integration work from the Command and Control Systems Interoperability Program (C2SIP) into an Advanced Concept Technology Demonstration (ACTD) to achieve NATO levels four (messaging) and five (database) interoperability and also extend the effort into a sustainable program to incorporate lessons learned into national systems (e.g. AFATDS, FADC2). ***FY 2011 Accomplishments:*** Continued integration work from the Command and Control Systems Interoperability Program (C2SIP) into an Advanced Concept Technology Demonstration (ACTD) to achieve NATO levels four (messaging) and five (database) interoperability and also extend the effort into a sustainable program to incorporate lessons learned into national systems. ***FY 2012 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603790A: *NATO Research and Development*	PROJECT 691: *NATO RSCH & DEVEL*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Continues integration work from the Command and Control Systems Interoperability Program into an Advanced Concept Technology Demonstration (ACTD) to achieve NATO levels four (messaging) and five (database) interoperability and also extend the effort into a sustainable program to incorporate lessons learned into national systems (e.g. AFATDS, FADC2). NA ***FY 2013 Plans:*** Will continue integration work from the Command and Control Systems Interoperability Program into an Advanced Concept Technology Demonstration (ACTD) to achieve NATO levels four (messaging) and five (database) interoperability and also extend the effort into a sustainable program to incorporate lessons learned into national systems (e.g. AFATDS, FADC2).			
Title: Low Level Air Defense Interoperability ***Articles:*** ***Description:*** Low Level Air Defense Interoperability (LLAPI) (Partners: Major NATO Allies): The objective of this program is to successfully demonstrate Command and Control (C2) interoperability among the participant nations' Short Range Air Defense (shared) assets for automated air picture exchange. ***FY 2011 Accomplishments:*** The objective of this program is to successfully demonstrate Command and Control (C2) interoperability among the participant nations' Short Range Air Defense (shared) assets for automated air picture exchange. ***FY 2012 Plans:*** The objective of this program is to successfully demonstrate Command and Control (C2) interoperability among the participant nations' Short Range Air Defense (shared) assets for automated air picture exchange. NA ***FY 2013 Plans:*** The objective of this program is to successfully demonstrate Command and Control (C2) interoperability among the participant nations' Short Range Air Defense (shared) assets for automated air picture exchange	0.225 0	0.209 0	0.224
Title: Multi-National Network Enabled Capabilities ***Articles:*** ***Description:*** Multi-National Network Enabled Capabilities (MNNEC) related Command, Control, Communications, Computers, Intelligence Surveillance and Reconnaissance (C4ISR)(Potential Partners: United Kingdom, France, Italy, Germany and major NATO Allies) MNNEC would focus on developing a single solutions standard avoiding development of multiple unique solutions and leverage existing interoperability standards developed by NATO as well as other international forums such as the Five Power Net Centrick PA. A single solution standard will include common doctrine, technical and procedural specifications to make better use of existing information, shared data, leverage national operating picture capabilities and enable the development of interoperability of data, databases, applications, security domains and national networks architectures. The MNNEC is more than	0.540 0	0.550 0	0.577

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603790A: *NATO Research and Development*	PROJECT 691: *NATO RSCH & DEVEL*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013

interoperability of information systems; it is the complete networking of information systems with sensors and shooters focusing on building Net-Centric interoperability among coalition tactical land components operating in a Joint Environment, focused at the Brigade and Below level, but not excluding using the services provided at higher echelons. The MNNEC has a future force focus, endeavoring to define migration strategies for Net-Centric capabilities in the 2010-2025 timeframe with part of the work to determine the time-phased implementations of a Multi-National Network Enabled Capability. The end results would be an integration of national C2/C4ISR systems into an NCES environment to include the NATO Network Enabled Capabilities (NNEC) and the 5 Powers Net Centric Project Agreement.

FY 2011 Accomplishments:

Command, Control, Communications, Computers, Intelligence Surveillance and Reconnaissance (C4ISR)(Potential Partners: United Kingdom, France, Italy, Germany and major NATO Allies) MNNEC would focus on developing a single solutions standard avoiding development of multiple unique solutions and leverage existing interoperability standards developed by NATO as well as other international forums such as the Five Power Net Centrick PA. A single solution standard will include common doctrine, technical and procedural specifications to make better use of existing information, shared data, leverage national operating picture capabilities and enable the development of interoperability of data, databases, applications, security domains and national networks architectures. The MNNEC is more than interoperability of information systems; it is the complete networking of information systems with sensors and shooters focusing on building Net-Centric interoperability among coalition tactical land components operating in a Joint Environment, focused at the Brigade and Below level, but not excluding using the services provided at higher echelons. The MNNEC has a future force focus, endeavoring to define migration strategies for Net-Centric capabilities in the 2010-2025 timeframe with part of the work to determine the time-phased implementations of a Multi-National Network Enabled Capability. The end results would be an integration of national C2/C4ISR systems into an NCES environment to include the NATO Network Enabled Capabilities (NNEC) and the 5 Powers Net Centric Project Agreement.

FY 2012 Plans:

Multi-National Network Enabled Capabilities (MNNEC) related Command, Control, Communications, Computers, Intelligence Surveillance and Reconnaissance (C4ISR)(Potential Partners: United Kingdom, France, Italy, Germany and major NATO Allies) MNNEC would focus on developing a single solutions standard avoiding development of multiple unique solutions and leverage existing interoperability standards developed by NATO as well as other international forums such as the Five Power Net Centrick PA. A single solution standard will include common doctrine, technical and procedural specifications to make better use of existing information, shared data, leverage national operating picture capabilities and enable the development of interoperability of data, databases, applications, security domains and national networks architectures. The MNNEC is more than interoperability of information systems; it is the complete networking of information systems with sensors and shooters focusing on building Net-Centric interoperability among coalition tactical land components operating in a Joint Environment, focused at the Brigade and Below level, but not excluding using the services provided at higher echelons. The MNNEC has a future force focus, endeavoring

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
to define migration strategies for Net-Centric capabilities in the 2010-2025 timeframe with part of the work to determine the time-phased implementations of a Multi-National Network Enabled Capability. The end results would be an integration of national C2/ C4ISR systems into an NCES environment to include the NATO Network Enabled Capabilities (NNEC). NA ***FY 2013 Plans:*** Multi-National Network Enabled Capabilities (MNNEC) related Command, Control, Communications, Computers, Intelligence Surveillance and Reconnaissance (C4ISR)(Potential Partners: United Kingdom, France, Italy, Germany and major NATO Allies) MNNEC would focus on developing a single solutions standard avoiding development of multiple unique solutions and leverage existing interoperability standards developed by NATO as well as other international forums such as the Five Power Net Centrick PA. A single solution standard will include common doctrine, technical and procedural specifications to make better use of existing information, shared data, leverage national operating picture capabilities and enable the development of interoperability of data, databases, applications, security domains and national networks architectures. The MNNEC is more than interoperability of information systems; it is the complete networking of information systems with sensors and shooters focusing on building Net-Centric interoperability among coalition tactical land components operating in a Joint Environment, focused at the Brigade and Below level, but not excluding using the services provided at higher echelons. The MNNEC has a future force focus, endeavoring to define migration strategies for Net-Centric capabilities in the 2010-2025 timeframe with part of the work to determine the time-phased implementations of a Multi-National Network Enabled Capability. The end results would be an integration of national C2/ C4ISR systems into an NCES environment to include the NATO Network Enabled Capabilities (NNEC).			
Title: Combat Identification	0.050	0.050	0.060
Articles:	0	0	
Description: Combat Identification (Partners: UK, Germany, France and Italy): Combat ID will pursue the extension of tasks required for implementing the associated NATO Standardization Agreement (STANAG 4579), allied participation in Coalition Combat ID Advanced Concept Technology Demonstrator (ACTD), will pursue the NATO Staff Requirement and a STANAG for the Dismounted Soldier ID. ***FY 2011 Accomplishments:*** Combat Identification (Partners: UK, Germany, France and Italy): Combat ID pursued the extension of tasks required for implementing the associated NATO Standardization Agreement (STANAG 4579), allied participation in Coalition Combat ID Advanced Concept Technology Demonstrator (ACTD), will pursue the NATO Staff Requirement and a STANAG for the Dismounted Soldier ID. ***FY 2012 Plans:***			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
CI (Partners: UK, Germany, France and Italy): Combat ID pursues the extension of tasks required for implementing the associated NATO Standardization Agreement (STANAG 4579), allied participation in Coalition Combat ID Advanced Concept Technology Demonstrator (ACTD), will pursue the NATO Staff Requirement and a STANAG for the Dismounted Soldier ID. NA ***FY 2013 Plans:*** CI (Partners: UK, Germany, France and Italy): Combat ID will pursue the extension of tasks required for implementing the associated NATO Standardization Agreement (STANAG 4579), allied participation in Coalition Combat ID Advanced Concept Technology Demonstrator (ACTD), will pursue the NATO Staff Requirement and a STANAG for the Dismounted Soldier ID.			
Title: Technology Research and Development Projects	0.980	0.809	0.795
Articles:	0	0	
Description: Technology Research and Development Projects (TRDP) (Partners: United Kingdom, Germany, France, Canada, Australia, Netherlands, Korea, Norway): The scope of this MOU encompasses R&D collaboration on basic, exploratory and advanced Land Warfare Concepts and Technologies that are focused on Future Combat System enabling technologies, the maturation of which may lead to the development of technologically superior conventional weapon systems. ***FY 2011 Accomplishments:*** Technology Research and Development Projects Partners: United Kingdom, Germany, France, Canada, Australia, Netherlands, Korea, Norway): The scope of this MOU encompassed R&D collaboration on basic, exploratory and advanced Land Warfare Concepts and Technologies that are focused on Future Combat System enabling technologies, the maturation of which may lead to the development of technologically superior conventional weapon systems. ***FY 2012 Plans:*** Technology Research and Development Projects (TRDP) (United Kingdom, Germany, France, Canada, Australia, Netherlands, Korea, Norway): The scope of this MOU encompasses R&D collaboration on basic, exploratory and advanced Land Warfare Concepts and Technologies that are focused on Future Combat System enabling technologies, the maturation of which may lead to the development of technologically superior conventional weapon systems. ***FY 2013 Plans:*** Technology Research and Development Projects (TRDP) (United Kingdom, Germany, France, Canada, Australia, Netherlands, Korea, Norway): The scope of this MOU will encompass R&D collaboration on basic, exploratory and advanced Land Warfare Concepts and Technologies that are focused on Future Combat System enabling technologies, the maturation of which may lead to the development of technologically superior conventional weapon systems.			
Title: Senior National Representatives (Army) (SNR-(A))	0.692	0.799	0.768
Articles:	0	0	

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Senior National Representatives (Army) (SNR-(A)) Projects (Partners: France, Germany, United Kingdom and Italy): Supports harmonization of programs at various levels: exchanging information, identifying knowledge gaps and conducting feasibility studies to further promote cooperative development; standardizing, fielding and roadmapping various processes; distributing the workload among the different nations. Technology Demonstrations hosted by the U.S. reps to Land Group 6, NATO Army Armaments Group (NAAG), will provide an opportunity to observe and demonstrate the current and future capability of participating NATO nations with a view to assisting future operational and materiel interoperability. Army support of NAAG studies, analysis and technology demonstrations. ***FY 2011 Accomplishments:*** Senior National Representatives (Army) (SNR-(A)) Projects (Partners: France, Germany, United Kingdom and Italy): Supports harmonization of programs at various levels: exchanging information, identifying knowledge gaps and conducting feasibility studies to further promote cooperative development; standardizing, fielding and roadmapping various processes; distributing the workload among the different nations. Technology Demonstrations hosted by the U.S. reps to Land Group, NATO Army Armaments Group (NAAG), provided an opportunity to observe and demonstrate the current and future capability of participating NATO nations with a view to assisting future operational and materiel interoperability. Army support of NAAG studies, analysis and technology demonstrations. ***FY 2012 Plans:*** Senior National Representatives (Army) (SNR-(A)) Projects (Partners: France, Germany, United Kingdom and Italy): Supports harmonization of programs at various levels: exchanging information, identifying knowledge gaps and conducting feasibility studies to further promote cooperative development; standardizing, fielding and roadmapping various processes; distributing the workload among the different nations. Technology Demonstrations hosted by the U.S. reps to Land Group, NATO Army Armaments Group (NAAG), provides an opportunity to observe and demonstrate the current and future capability of participating NATO nations with a view to assisting future operational and materiel interoperability. Army support of NAAG studies, analysis and technology demonstrations. ***FY 2013 Plans:*** Senior National Representatives (Army) (SNR-(A)) Projects (Partners: France, Germany, United Kingdom and Italy): Supports harmonization of programs at various levels: exchanging information, identifying knowledge gaps and conducting feasibility studies to further promote cooperative development; standardizing, fielding and roadmapping various processes; distributing the workload among the different nations. Technology Demonstrations hosted by the U.S. reps to Land Group, NATO Army Armaments Group (NAAG), will provide an opportunity to observe and demonstrate the current and future capability of			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
participating NATO nations with a view to assisting future operational and materiel interoperability. Army support of NAAG studies, analysis and technology demonstrations.			
Title: Joint Tactical Radio System	0.270	0.265	0.263
Articles:	0	0	
Description: Joint Tactical Radio System (JTRS) (Partners: Japan, Sweden, UK): The participants in these programs will develop and implement Software-enabled radios as replacements to current radio systems. The projects shall be focused on maintaining interoperability as the countries pursue their own separate software radio programs. The project agreements (PAs) will include a joint development of software radio specifications, separate development and testing of software waveforms, and joint interoperability testing using the system assets developed as part of the agreements.			
FY 2011 Accomplishments: Joint Tactical Radio System (Partners: Japan, Sweden, UK): The participants in these programs developed and implemented Software-enabled radios as replacements to current radio systems. The projects focused on maintaining interoperability as the countries pursue their own separate software radio programs. The project agreements (PAs) included a joint development of software radio specifications, separate development and testing of software waveforms, and joint interoperability testing using the system assets developed as part of the agreements.			
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Title: Artillery Command and Control Interoperability	0.365	0.365	0.387
Articles:	0	0	

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Artillery Command and Control Interoperability (ASCA) (Partners: France, Germany, Italy, UK): The Participants in this program will develop an automated software interface between their national field artillery command and control systems. The nations will be able to receive and provide mutual fire support (i.e. cannon and rocket fire) in combined operations more rapidly and with minimal errors. ***FY 2011 Accomplishments:*** Artillery Command and Control Interoperability (ASCA) (France, Germany, Italy, UK): The Participants in this program developed an automated software interface between their national field artillery command and control systems. The nations was able to receive and provide mutual fire support (i.e. cannon and rocket fire) in combined operations more rapidly and with minimal errors. ***FY 2012 Plans:*** ASCA (Partners: France, Germany, Italy, UK): The Participants in this program developes an automated software interface between their national field artillery command and control systems. The nations is able to receive and provide mutual fire support (i.e. cannon and rocket fire) in combined operations more rapidly and with minimal errors. ***FY 2013 Plans:*** ASCA (Partners: France, Germany, Italy, UK): The Participants in this program will develop an automated software interface between their national field artillery command and control systems. The nations will be able to receive and provide mutual fire support (i.e. cannon and rocket fire) in combined operations more rapidly and with minimal errors.			
Title: Force Protection Projects	0.250	0.255	0.297
Articles:	0	0	
Description: Force Protection Projects (FPP) (Partners: United Kingdom, France, Germany, Italy, Sweden, Canada): Force Protection Projects will include R&D collaborationon technologies such as Counter Rocket and Mortar (C-RAM) and Counter Improvised Explosive Devices (C-IED). Programs include Military Operations in Urban Terrain (MOUT) and a variety of Defense Against Terrorism (DAT) initiatives such as Defense Against Mortar Attacks (DAMA) and Joint Precision Air Drop System (JPADS). ***FY 2011 Accomplishments:*** Force Protection Projects (FPP) (Partners: United Kingdom, France, Germany, Italy, Sweden, Canada): Force Protection Projects included R&D collaborationon technologies such as Counter Rocket and Mortar (C-RAM) and Counter Improvised Explosive Devices (C-IED). Programs included Military Operations in Urban Terrain (MOUT) and a variety of Defense Against Terrorism (DAT) initiatives such as Defense Against Mortar Attacks (DAMA) and Joint Precision Air Drop System (JPADS). ***FY 2012 Plans:***			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Force Protection Projects (FPP) (United Kingdom, France, Germany, Italy, Sweden, Canada): Force Protection Projects includes R&D collaborationon technologies such as Counter Rocket and Mortar (C-RAM) and Counter Improvised Explosive Devices (C-IED). Programs includes Military Operations in Urban Terrain (MOUT) and a variety of Defense Against Terrorism (DAT) initiatives such as Defense Against Mortar Attacks (DAMA) and Joint Precision Air Drop System (JPADS). NA ***FY 2013 Plans:*** Force Protection Projects (FPP) (United Kingdom, France, Germany, Italy, Sweden, Canada): Force Protection Projects will include R&D collaborationon technologies such as Counter Rocket and Mortar (C-RAM) and Counter Improvised Explosive Devices (C-IED). Programs include Military Operations in Urban Terrain (MOUT) and a variety of Defense Against Terrorism (DAT) initiatives such as Defense Against Mortar Attacks (DAMA) and Joint Precision Air Drop System (JPADS).			
Accomplishments/Planned Programs Subtotals	4.879	4.839	4.961

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

All projects are test or technical demonstrations to feed into potential new requirements in support of Army Transformation to the Future Force or as product improvements to the Current Force.

E. Performance Metrics

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

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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
STEM/IOL	TBD	RDECOM,:Ft. Belvoir, VA	0.418	0.035		0.087		-		0.087	Continuing	Continuing	0.000
Low Level Air Defense Interoperability (LLAPI)	TBD	AMCOM,:Redstone Aresnal, AL	0.407	-		-		-		-	Continuing	Continuing	0.000
MIP	Various	PEO C3S,:Ft. Monmouth, NJ	1.086	0.140		-		-		-	Continuing	Continuing	0.000
Combat Identification	TBD	CECOM,:Ft. Monmouth, NJ	0.547	0.025		-		-		-	Continuing	Continuing	0.000
SNR(A)	TBD	ARL,:APG, MD	0.642	-		-		-		-	Continuing	Continuing	0.000
TRDP	TBD	REDCOM,:Ft. Belvoir, VA	2.381	0.310		0.295		-		0.295	Continuing	Continuing	0.000
Artillery Command and Control Interoperability (ASCA)	TBD	CECOM,:Ft. Monmouth, NJ	0.125	0.015		-		-		-	Continuing	Continuing	0.000
Force Protection Projects (FPP)	TBD	RDECOM,:Ft. Belvoir, VA	0.051	0.050		0.035		-		0.035	0.000	0.136	0.000
		Subtotal	5.657	0.575		0.417		-		0.417			0.000

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Multilateral Interoperability Program (MIP)	TBD	Various:Various	2.057	0.177		0.193		-		0.193	Continuing	Continuing	Continuing
STEM-IOL	TBD	LSS/GDIT,:Fairfax, VA	5.675	0.595		0.597		-		0.597	Continuing	Continuing	Continuing
Low Level Air Defense Interoperability (LLAPI)	TBD	AMCOM,:Redstone Arsenal, AL	1.299	0.120		0.120		-		0.120	Continuing	Continuing	Continuing
Combat Identification	TBD	CECOM,:Ft. Monmouth, NJ	1.017	-		0.025		-		0.025	Continuing	Continuing	Continuing
Multi-National Network Enabled Capabilities (MNNEC) related to C4ISR	TBD	CECOM,:Ft. Monmouth, NJ	3.501	0.455		0.500		-		0.500	Continuing	Continuing	Continuing

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Senior National Representatives (Army) (SNR[A])	Various	ARDEC,:Arlignton, VA	8.097	0.574		0.568		-		0.568	Continuing	Continuing	Continuing
TRDP	Various	Batelle/LMI,:McLean, VA	2.382	0.194		0.205		-		0.205	Continuing	Continuing	Continuing
Artillery Command and Control Interoperability (ASCA)	Various	CECOM,:Fort Monmouth, NJ	2.025	0.185		0.197		-		0.197	Continuing	Continuing	Continuing
Joint Tactical Radio System (JTRS)	Various	PM JTRS,:San Diego, CA	0.968	0.165		0.163		-		0.163	Continuing	Continuing	Continuing
Force Protection Projects (FPP)	Various	RDECOM,:Ft Belvoir, VA	0.325	0.115		0.117		-		0.117	0.000	0.557	Continuing
		Subtotal	27.346	2.580		2.685		-		2.685			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIP	Various	CECOM:Ft. Monmouth, NJ	1.443	0.200		0.225		-		0.225	Continuing	Continuing	Continuing
Low Level Air Defense Interoperability (LLAPI)	Various	AMCOM,:Redstond Arsenal, AL	0.622	0.089		0.104		-		0.104	Continuing	Continuing	Continuing
STEM/IOL	Various	GDIT:Fairfax, VA	1.298	0.130		0.150		-		0.150	Continuing	Continuing	Continuing
Combat Identification	Various	CECOM:Ft Monmouth, Nj	0.614	0.025		0.035		-		0.035	Continuing	Continuing	Continuing
Multi-National Network Enabled Capabilities (MNNEC) related to C4ISR	Various	CECOM:Fort Monmouth, NJ	0.916	0.095		0.107		-		0.107	Continuing	Continuing	Continuing
SNR(A)	Various	ARL,:Aberdeen, Md	1.873	0.080		0.100		-		0.100	Continuing	Continuing	Continuing
TRDP	Various	RDECOM,:Ft. Belvoir, VA	2.436	0.305		0.295		-		0.295	Continuing	Continuing	Continuing

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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Tactical Radio System (JTRS)	Various	PM JTRS,:San Diego, VA	0.617	0.100		0.100		-		0.100	Continuing	Continuing	Continuing
Artillery Command and Control Interoperability (ASCA)	Various	CECOM:Ft Monmouth, Nj	0.568	0.115		0.100		-		0.100	Continuing	Continuing	Continuing
Force Protection Projects (FPP)	Various	RDECOM,:Fort Belvoir, VA	0.042	0.050		0.050		-		0.050	0.000	0.142	Continuing
		Subtotal	10.429	1.189		1.266		-		1.266			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIP	Various	CECOM:Ft. Monmouth, NJ	1.282	0.160		0.275		-		0.275	Continuing	Continuing	0.000
STEM/IOL	Various	RDECOM,:Various	0.895	0.100		0.063		-		0.063	Continuing	Continuing	0.000
Low Level Air Defense Interoperability (LLAPI)	Various	AMCOM,:Redstone Aresnal, AL	0.244	-		-		-		-	Continuing	Continuing	0.000
SNR(A)	TBD	various:various	1.319	0.145		0.100		-		0.100	Continuing	Continuing	0.000
ASCA	TBD	CECOM:Ft. Monmouth, NJ	0.329	0.050		0.090		-		0.090	Continuing	Continuing	0.000
Joint Tactical Radio System (JTRS)	TBD	CECOM:Ft. Monmouth, NJ	0.302	-		-		-		-	Continuing	Continuing	0.000
Force Protection Projects (FPP)	TBD	RDECOM,:Ft. Belvoir, VA	0.052	0.040		0.065		-		0.065	0.000	0.157	0.000
		Subtotal	4.423	0.495		0.593		-		0.593			0.000

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	47.855	4.839		4.961		-		4.961			

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	Total Prior Years Cost	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
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COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	8.058	7.218	8.602	-	8.602	8.426	8.296	7.717	7.880	Continuing	Continuing
B32: *ADV MAINT CONCEPTS/EQ*	8.058	7.218	8.602	-	8.602	8.426	8.296	7.717	7.880	Continuing	Continuing

Note

Not applicable for this item

A. Mission Description and Budget Item Justification

This PE provides advanced development aviation support of tactical programs associated with air mobility, advanced maintenance concepts and equipment, and Aircrew Integrated Systems (ACIS). This program demonstrates the feasibility and maturity of new technology and gains understanding in order to evaluate utility of this technology to expedite delivery of new capabilities for Army Aviation rotary wing assets. Additionally, the Aviation Ground Support Equipment (AGSE) assets enhance the functionality of current and future aircraft by improving the effectiveness of maintenance and servicing operations through validating new maintenance concepts to improve man and machine interfaces, improve aircraft maintenance processes, reduce Operation and Support (O&S) cost and insert diagnostics technologies to replace obsolete and unsupportable equipment.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	8.355	7.107	8.510	-	8.510
Current President's Budget	8.058	7.218	8.602	-	8.602
Total Adjustments	-0.297	0.111	0.092	-	0.092
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	0.111			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	0.092	-	0.092
• Other Adjustments 1	-0.297	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603801A: *Aviation - Adv Dev*	PROJECT B32: *ADV MAINT CONCEPTS/EQ*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
B32: *ADV MAINT CONCEPTS/EQ*	8.058	7.218	8.602	-	8.602	8.426	8.296	7.717	7.880	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

This Project provides advanced development aviation support of programs that include advanced maintenance concepts and equipment. The FY 2013 budget request funds Aviation Advanced Development which supports Aviation Ground Support Equipment development prototypes that will enhance the functionality of current and future aircraft by improving the effectiveness of maintenance and servicing operations through validating new maintenance concepts to improve man and machine interfaces, improve aircraft maintenance processes, reduce Operation and Support costs, and insert diagnostics technologies to replace obsolete and unsupportable equipment. This program provides for development of rapid battle repair procedures, tools development to speed the return of aircraft to a full mission status, and development of new equipment for aerial recovery of damaged aircraft. Included in this program are: diagnostics/prognostic monitoring systems, Aviation Ground Power Unit (AGPU) equipment familiarization software, redesign and incorporation of AGPU modularity capabilities, Aviation Light Utility Mobile Maintenance Cart (ALUMMC), Aviation Sets, Kits, Outfits and Tools (A-SKOT) (Common Aviation Tool System (CATS); Aviation B1/B4 Maintenance Stands (B1-B4)), Digital Aircraft Weighing Scales II (DAWS II), Hand Held Fire Extinguisher (HHFE), Non-Destructive Test Equipment System (NDTE), Battle Damage Assessment and Repair (BDAR) Block II, Flexible Engine Diagnostic System (FEDS), Aviation Lifting Device, and development support for tools needed to provide maintenance support to modernized/ future force aircraft.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Aviation Ground Power Unit (AGPU)	0.500	-	4.191
Articles:	0		
Description: The AGPU provides the capability to meet Army helicopter servicing requirements into the next decade by providing a modular, diagnostic/prognostic monitoring system with external hydraulic, pneumatic, and AC/DC electrical power to all Modernized Force Aircraft.			
FY 2011 Accomplishments: Completed analysis and testing of phase I hydraulic module re-design.			
FY 2013 Plans: Develop Operational Test Plans, Test and Evaluation Master Plans and Safety Plans, purchase AGPU prototypes, complete environmental and performance testing and conduct down select.			
Title: Aviation Light Utility Mobile Maintenance Cart (ALUMMC)	-	1.487	0.546

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603801A: *Aviation - Adv Dev*	PROJECT B32: *ADV MAINT CONCEPTS/EQ*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Articles:		0	
Description: Aviation Light Utility Mobile Maintenance Cart will enhance mission performance of current forces by reducing an intensive manpower and logistics burden imposed on Army Aviation Units. ***FY 2012 Plans:*** Develop operational test plans, select site, purchase prototypes, complete testing and down select ALUMMC. ***FY 2013 Plans:*** Finalization of product evaluation and operational test plans.			
Title: Aviation B1/B4 Maintenance Stands	-	0.525	-
Articles:		0	
Description: Aviation Maintenance Stands are a component of Aviation Sets, Kits, Outfits and Tools (A-SKOT) and provide a stable working platform for Army rotorcraft maintenance activities and enhances the occupational safety environment for maintainers. ***FY 2012 Plans:*** Develop testing and evaluation plans to modernize maintenance platforms, purchase product samples and complete evaluation and selection of product.			
Title: Battle Damage Assessment and Repair (BDAR) Block II	0.026	0.505	-
Articles:	0	0	
Description: BDAR Block II provides damage assessment and rapid repair to aviation aircraft. ***FY 2011 Accomplishments:*** Completed phase one of the BDAR Block II Development for the component kit. ***FY 2012 Plans:*** Complete phase two for the advanced composite demonstration development, purchase sample representatives, conduct testing and evaluation and select vendor for production.			
Title: Common Aviation Tool System (CATS)	0.475	-	-
Articles:	0		
Description: CATS is a component of A-SKOT and consists of individual aviation mechanics tool kit containers, aerospace standard tools, foam shadowed drawers and a component listing with picture diagrams for ease of inventory and to minimize			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603801A: *Aviation - Adv Dev*	PROJECT B32: *ADV MAINT CONCEPTS/EQ*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
foreign object damage to aircraft. CATS provides standardized tools, kits and outfits which meet transformation modularity, flexibility and mobility requirements for repair of rotary wing aircraft during combat, contingency and training operations. ***FY 2011 Accomplishments:*** Develop test plans and purchase samples of tool kit containers, perform testing and evaluation on all samples and select vendor for purchase of approved container.			
Title: Digital Aircraft Weighing Scales (DAWS) II ***Description:*** DAWS II is an electronic/digital weighing scale. It is used to perform weight and balance without leveling the aircraft and produces a computerized DD Form 365 outlining results. ***FY 2013 Plans:*** Conduct research into the availability of modern technology and assess the need for system modernization procurement.	-	-	0.600
Title: Flexible Engine Diagnostics System (FEDS) ***Articles:*** ***Description:*** FEDS is a Turbo-Shaft Engine Test Stand that verifies flight readiness/safety of engines removed from aircraft for maintenance. This test stand supports the CH-47, AH-64 and UH-60 aviation aircraft. ***FY 2011 Accomplishments:*** Performed reliability analysis, prototype build, testing, software development and modernization of the FEDS and corrected all deficiencies identified. ***FY 2012 Plans:*** Complete the FEDS for the prototype development and integrate networking capabilities of FEDS devices through the design and adaption of a Common Access Card.	2.450 0	1.588 0	-
Title: Hand Held Fire Extinguisher (HHFE) ***Articles:*** ***Description:*** The HHFE is being reviewed to find a replacement for the Halon 1301 agent currently fielded on Aviation Rotary Wing aircraft. ***FY 2011 Accomplishments:***	1.482 0	0.717 0	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603801A: *Aviation - Adv Dev*	PROJECT B32: *ADV MAINT CONCEPTS/EQ*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Completed various testing of the FM-200 mixed with sodium bicarbonate to identify an environmentally approved substance for the Hand Held Fire Extinguisher, completed the technical data package, produced production representative items and selected a replacement for the HALON 1301 extinguisher. ***FY 2012 Plans:*** Perform testing and evaluation on the replacement HALON 1301 extinguisher and complete documentation for release of the selected HALON 1301 extinguisher.			
Title: Non-Destructive Test Equipment (NDTE) ***Description:*** NDTE provides Army Aviation Maintenance units with an electronic test instrument to inspect aircraft components and structures without complete disassembly or removal of components from the aircraft. ***FY 2013 Plans:*** Begin research and development of Non-Destructive Test Equipment (eddy current, ultrasonic, harmonic bond, and radiography) for modernization and technology advancements.	-	-	0.925
Title: Shop Equipment Contact Maintenance (SECM) ***Articles:*** ***Description:*** SECM provides the combat maintainer a contact maintenance vehicle with containerized tools/spares/modules for repair of aircraft. ***FY 2011 Accomplishments:*** Completed development and testing of an export power system that will meet Phase II power requirements.	1.087 0	-	-
Title: Unit Maintenance Aerial Recovery Kit (UMARK) ***Articles:*** ***Description:*** UMARK provides Aviation Support Company and Aviation Maintenance Company units with the ability to quickly rig for transport crash-damaged non-flyable modernized aircraft or aircraft undergoing maintenance for evacuation. ***FY 2011 Accomplishments:*** Developed test plans to verify rigging procedures and began ground development and flight test as a result of modeling and simulations for the recovery of crash damaged aircraft. ***FY 2012 Plans:*** Continue ground development and flight test as a result of modeling and simulations for the recovery of crash damaged aircraft. ***FY 2013 Plans:***	1.209 0	1.199 0	1.100

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603801A: *Aviation - Adv Dev*	PROJECT B32: *ADV MAINT CONCEPTS/EQ*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Complete ground and flight testing verification.			
Title: Management Support Services	0.250	0.355	0.400
Articles:	0	0	
Description: Management Support Services in Support of the Aviation Ground Support Equipment Product Management Office. ***FY 2011 Accomplishments:*** Management Support Services ***FY 2012 Plans:*** Management Support Services ***FY 2013 Plans:*** Management Support Services			
Title: RDTE Project Test Support	0.280	0.360	0.430
Articles:	0	0	
Description: RDTE Project Test Support for the Aviation Ground Support Equipment Product Management Office. ***FY 2011 Accomplishments:*** RDTE Project Test Support ***FY 2012 Plans:*** RDTE Project Test Support ***FY 2013 Plans:*** RDTE Project Test Support			
Title: Technical Engineering Services	0.299	0.482	0.410
Articles:	0	0	
Description: Technical Engineering Services in support of Aviation Ground Support Equipment Product Management Office. ***FY 2011 Accomplishments:*** Technical Engineering Services ***FY 2012 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603801A: *Aviation - Adv Dev*	PROJECT B32: *ADV MAINT CONCEPTS/EQ*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Technical Engineering Services			
FY 2013 Plans: Technical Engineering Services			
Accomplishments/Planned Programs Subtotals	8.058	7.218	8.602

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• Aviation Ground Support Equipment: *Aviation Ground Support Equipment, SSN AZ3520*	141.324	114.517	82.511		82.511		94.445	166.684	131.088	Continuing	Continuing

D. Acquisition Strategy

This project is an aggregate of advanced maintenance concepts related projects. While the detailed acquisition strategy varies from project to project, the general strategy for each individual project is to complete the development effort through Government test (developmental and operational). Program documentation for milestone decision is prepared, as appropriate, concurrently with the development effort.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603801A: *Aviation - Adv Dev*	PROJECT B32: *ADV MAINT CONCEPTS/EQ*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Support Services	Various	PM AGSE:RSA, AL	0.629	0.355		0.400		-		0.400	Continuing	Continuing	Continuing
		Subtotal	0.629	0.355		0.400		-		0.400			

Remarks

None

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AGPU	Various	RTTC, Redstone Arsenal (RSA), AL; AMRDEC, RSA, AL; AATD, Ft. Eustis, VA; Aberdeen Test Center (ATC),:Aberdeen Proving Ground, MD	11.351	-		4.191		-		4.191	Continuing	Continuing	Continuing
ALUMMC	Various	AMRDEC, RSA, AL, AATD, Ft. Eustis, VA, ATC,:Aberdeen Proving Ground MD	-	1.487		0.546		-		0.546	0.000	2.033	0.000
B1/B4 Maintenance Stands (Aviation Sets, Kits, Outfits and Tools (A-SKOT))	Various	AMRDEC, RSA, AL; AATD, Ft., Eustis, VA., ATC,:Aberdeen Proving Ground	-	0.525		-		-		-	0.000	0.525	0.000
BDAR Block II	Various	AMRDEC, RSA, AL; AATD, Ft., Eustis, VA., ATC,:Aberdeen Proving Ground, MD	0.656	0.505		-		-		-	0.000	1.161	0.000
CATS (A-SKOT)	Various	AATD, Ft. Eustis, VA, ATC,:Aberdeen Proving Ground, MD.	0.475	-		-		-		-	0.000	0.475	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603801A: *Aviation - Adv Dev*	PROJECT B32: *ADV MAINT CONCEPTS/EQ*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DAWS II	Various	AMRDEC, RSA, AL; AATD,:Ft. Eustis, VA,	-	-		0.600		-		0.600	Continuing	Continuing	Continuing
FEDS	Various	AMRDEC, RSA, AL; AATD, Ft. Eustis, VA; ATC,:Aberdeen Proving Ground, MD	9.005	1.588		-		-		-	0.000	10.593	0.000
HHFE	Various	AMRDEC, RSA, AL; ATC,:Aberdeen Proving Ground, MD	5.687	0.717		-		-		-	0.000	6.404	0.000
NDTE	Various	AMRDEC, RSA, AL., AATD, Ft. Eustis, VA; ATC,:Aberdeen Proving Ground, MD	0.404	-		0.925		-		0.925	Continuing	Continuing	Continuing
SECM	Various	AMRDEC, RSA, AL; AATD, Ft. Eustis, VA; ATC,:Aberdeen Proving Ground, MD	5.822	-		-		-		-	0.000	5.822	0.000
UMARK	Various	AMRDEC, RSA, AL; AATD, Ft. Eustis, VA; ATC,:Aberdeen Proving Ground, MD	3.820	1.199		1.100		-		1.100	0.000	6.119	0.000
		Subtotal	37.220	6.021		7.362		-		7.362			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Engineering Services	Various	AATD,:Ft. Eustis, VA	6.776	0.482		0.410		-		0.410	Continuing	Continuing	Continuing
		Subtotal	6.776	0.482		0.410		-		0.410			

Remarks

None

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603801A: *Aviation - Adv Dev*	PROJECT B32: *ADV MAINT CONCEPTS/EQ*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
RDTE Project Test Support	MIPR	ATC,:Aberdeen Proving Ground, MD	1.234	0.360		0.430		-		0.430	Continuing	Continuing	Continuing
		Subtotal	1.234	0.360		0.430		-		0.430			

Remarks

None

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	45.859	7.218		8.602		-		8.602			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603801A: *Aviation - Adv Dev*	PROJECT B32: *ADV MAINT CONCEPTS/EQ*

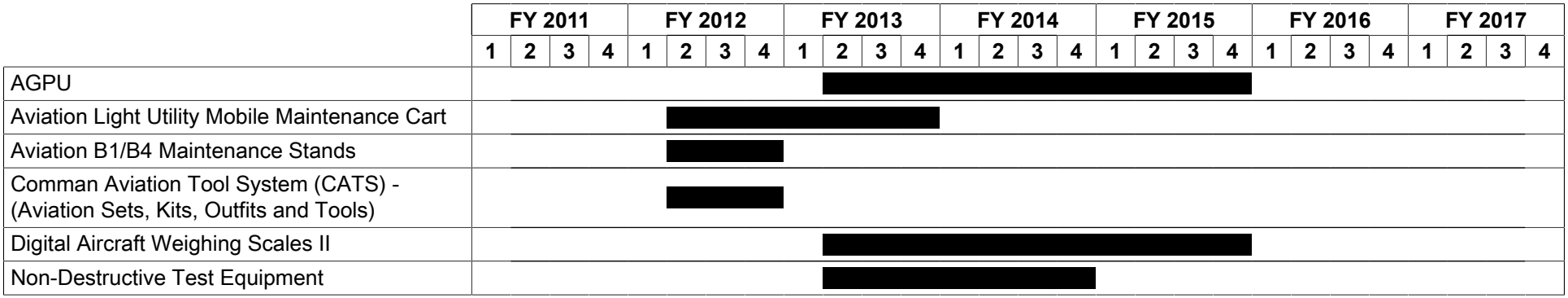

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603801A: *Aviation - Adv Dev*	**PROJECT** B32: *ADV MAINT CONCEPTS/EQ*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
AGPU	2	2013	4	2015
Aviation Light Utility Mobile Maintenance Cart	2	2012	4	2013
Aviation B1/B4 Maintenance Stands	2	2012	4	2012
Comman Aviation Tool System (CATS) - (Aviation Sets, Kits, Outfits and Tools)	2	2012	4	2012
Digital Aircraft Weighing Scales II	2	2013	4	2015
Non-Destructive Test Equipment	2	2013	4	2014

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	62.999	12.706	14.605	-	14.605	13.734	13.392	19.251	16.297	Continuing	Continuing
526: *MARINE ORIEN LOG EQ AD*	2.884	2.757	2.836	-	2.836	3.264	3.253	3.115	3.167	Continuing	Continuing
G11: *ADV ELEC ENERGY CON AD*	2.531	0.690	3.921	-	3.921	0.708	0.675	7.378	4.230	Continuing	Continuing
G14: *MATERIALS HANDLING EQUIPMENT - AD*	-	-	0.149	-	0.149	0.895	0.750	0.304	0.304	Continuing	Continuing
K39: *Field Sustainment Support AD*	18.237	2.998	2.970	-	2.970	3.526	3.571	3.107	3.159	Continuing	Continuing
K41: *WATER AND PETROLEUM DISTRIBUTION - AD*	2.493	4.187	2.706	-	2.706	3.118	3.104	2.972	3.022	Continuing	Continuing
K42: *MATERIEL SUSTAINMENT SUPPORT AD*	0.446	-	-	-	-	-	-	-	-	Continuing	Continuing
L04: *JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD*	36.408	-	-	-	-	-	-	-	-	Continuing	Continuing
VR8: *COMBAT SERVICE SUPPORT SYSTEMS - AD*	-	2.074	2.023	-	2.023	2.223	2.039	2.375	2.415	Continuing	Continuing

Note

Change Summary Explanation: Increase is due to PROJECT: G11 increase in F13.

A. Mission Description and Budget Item Justification

This program element supports advanced component development and prototypes of new and improved technologies for combat support and combat service support equipment essential to sustaining combat operations. Advancements in watercraft, bridging, electric power generators and batteries, potable water, material-handling, environmental control, shelter systems, cargo aerial delivery, field service systems, mortuary affairs equipment and petroleum equipment are necessary to improve safety and increase the tactical mobility, operational capability, lethality and survivability on the digital battlefield and to provide for greater sustainment while reducing the logistics support burden.

Increase from FY 2012 to FY 2013 reflects Project G11 Advance Electric Energy Con AD.

Joint Light Tactical Vehicles (JLTV): Funding supports the development and testing of the JLTV Family of Vehicles (FoV), which is being developed as a joint and international system between the Army and Marine Corps, and the Australian Army, participating under a Project Arrangement. The JLTV goal is a FoV with

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*

companion trailers capable of performing multiple mission roles that will be designed to provide protected, sustained, networked mobility for personnel and payloads across the full Range of Military Operations (RoMO). JLTV objectives include increased protection and performance over the current fleet; minimizing ownership costs by maximizing commonality, fuel efficiency and other means; and maintaining effective competition throughout the lifecycle. The JLTV FoV includes ten (10) sub-configurations (and companion trailers) in three payload categories. Commonality of components, maintenance procedures, training, etc., between vehicles and trailers is expected to be inherent in FoV solutions within and across Payload Categories to minimize FoV total ownership cost. Unique service requirements have been minimized.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	80.490	19.509	10.850	-	10.850
Current President's Budget	62.999	12.706	14.605	-	14.605
Total Adjustments	-17.491	-6.803	3.755	-	3.755
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	-17.491	-6.803	3.755	-	3.755

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT 526: *MARINE ORIEN LOG EQ AD*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
526: *MARINE ORIEN LOG EQ AD*	2.884	2.757	2.836	-	2.836	3.264	3.253	3.115	3.167	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Funding supports project advanced component study and development, and prototype of equipment and sub-systems supporting the Army Watercraft mission to provide critical capabilities in support of full-spectrum land combat operations by extending the Commander's available maneuver space into and throughout the littorals, inland waterways and near coastal regions. Army watercraft equipment supports the conduct of amphibious, riverine, logistics over the shore (LOTS), Joint logistics over the shore (JLOTS), inter and intratheater transport, movement and maneuver, mission command and sustainment as identified in DODD 5100-01, Functions of the Department of Defense and its Major Components. Army Watercraft exploit the inland waterway and littoral regions as waterborne maneuver and supply routes, conduct operations through littoral entry points, developed, undeveloped and austere access points, and in non-permissive and/or denied access scenarios. The Army uses a spectrum of lighterage and floating craft, from heavy sustainment ocean going landing craft capable of intratheater and ship to shore transport and undeveloped beach or harbor access, to ocean-going and harbor utility tug boats and barge derricks for transport and denied port/salvage operations, and modular causeway systems to support LOTS/JLOTS.

FY13 funding will be used to support the maturation of equipment, systems and sub-systems into Army Watercraft for the purposes of improved performance, energy efficiency, environmental and regulatory compliance, and to enhance the seaworthiness, safety, survivability, supportability and reliability of existing systems. Funded efforts will advance critical gaps in these areas for the current fleet, while at the same time studying, developing, and testing emergent technologies in a manner to support future acquisitions and future fleet planning as those areas are to be imminently informed by the recently chartered and upcoming Army Watercraft Systems Board of Directors (AWS BOD).

Fleet wide funding requirements will complete core requirements for development, prototype operational testing and military unit assessment of externally mounted accommodation units in support of crew and supercargo berthing, integration of escalation of force (EoF) force protection enhancements, to include both lethal and non-lethal, development of Battle Command on the Move (BCOTM) and Common Operating Picture (COP)/interoperability aspects of existing C4ISR, enhancement of developing environmental and energy efficiency technologies to ensure continued compliance with increasingly stringent regulatory requirements, and study/ development of digital technology integration in the areas of near and real time logistics management, area situational awareness, trend analysis, Condition Based Maintenance Plus (CBM+), equipment monitoring and diagnostics/prognostics and related functional areas, as well as study and development of Terminal Operations (ship to shore) and At Sea Transfer.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: ARMY WATERCRAFT JETA-SPOD	2.119	-	-
Articles:	0		
Description: Funding is provided for the following effort			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT 526: *MARINE ORIEN LOG EQ AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments: JETA-SPOD			
Title: Watercraft - Vessel to Shore Bridging (VSB) Study/Development ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2012 Plans:*** VSB - Vessel to Shore Bridging Study/Development ***FY 2013 Plans:*** VSB - Vessel to Shore Bridging Study/Development	-	0.505 0	0.230
Title: Watercraft - Landing Craft Mechanized (LCM 8) Study/Development ***Articles:*** ***Description:*** Landing Craft Mechanized 8 ***FY 2012 Plans:*** LCM 8 - Landing Craft Mechanized 8 Study/Development ***FY 2013 Plans:*** Watercraft - Landing Craft Mechanized (LCM-8) Study/Development	-	0.461 0	0.150
Title: Watercraft - Heavy Lift Vessel Study/Development ***Articles:*** ***Description:*** AWS Heavy Lift Vessel ***FY 2012 Plans:*** Heavy Lift Vessel Study/Development ***FY 2013 Plans:*** Heavy Sustainment Lift Study/Development	-	0.461 0	0.200
Title: Watercraft - People Pods Study/Development ***Articles:*** ***Description:*** AWS - People Pods	-	0.461 0	0.300

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT 526: *MARINE ORIEN LOG EQ AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
FY 2012 Plans: People Pods Study/Development ***FY 2013 Plans:*** Prototype operational testing and military unit assessment of crew and supercargo accomodations and berthing units.			
Title: Watercraft - Force Protection Study/Development ***Articles:*** ***Description:*** AWS - Force Protection ***FY 2012 Plans:*** Force Protection Study/Development ***FY 2013 Plans:*** Force Protection; lethal and non-lethal Escalation of Force (EoF) Study/Development	-	0.461 0	0.350
Title: Watercraft - C4ISR Study/Development ***Articles:*** ***Description:*** AWS - C4ISR ***FY 2012 Plans:*** C4ISR Study/Development ***FY 2013 Plans:*** C4ISR interoperability, Common Operating Picture (COP), and Battle Command on the Move (BCOTM) Study/Development.	-	0.276 0	0.150
Title: ARMY WATERCRAFT PROGRAM SUPPORT ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2011 Accomplishments:*** Continues Program Support ***FY 2012 Plans:*** Future Program Support ***FY 2013 Plans:***	0.265 0	0.132 0	0.156

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT 526: *MARINE ORIEN LOG EQ AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Future Program Support			
Title: WATERCRAFT MARKET SURVEYS AND BUSINESS ANALYSIS ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2011 Accomplishments:*** Continues Watercraft market surveys and business analysis ***FY 2013 Plans:*** Continues Watercraft market surveys and business analysis	0.500 0	-	0.150
Title: Watercraft - Riverine Craft ***Description:*** Riverine Craft Study/Development ***FY 2013 Plans:*** Riverine Craft Study/Development	-	-	0.150
Title: Watercraft - Tug and Barge ***Description:*** Tug and Barge Study/Development ***FY 2013 Plans:*** Tug and Barge Study/Development	-	-	0.150
Title: Watercraft - Terminal Operations ***Description:*** Terminal Operations and Ship to Shore Study/Development ***FY 2013 Plans:*** Terminal Operations and Ship to Shore Study/Development	-	-	0.200
Title: Watercraft - Port/Harbor Utility ***Description:*** Port/Harbor Utility and Light Landing Craft Study/Development ***FY 2013 Plans:*** Port/Harbor Utility and Light Landing Craft Study/Development	-	-	0.150
Title: Watercraft - Amphibious Craft	-	-	0.100

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Amphibious Craft Study/Development ***FY 2013 Plans:*** Amphibious Craft Study/Development			
Title: Watercraft - Digital Integration ***Description:*** Digital Integration Study/Development ***FY 2013 Plans:*** Digital integration of logistics management, equipment monitoring, diagnostics/prognostics, trend analysis and related functional area Study/Development	-	-	0.150
Title: Watercraft - At Sea Transfer ***Description:*** At Sea Transfer Study/Development ***FY 2013 Plans:*** At Sea Transfer Study/Development	-	-	0.100
Title: Watercraft - Energy Efficiency and Environmental Compliance ***Description:*** Energy Efficiency and Environmental Compliance ***FY 2013 Plans:*** Adaptation of developing energy efficiency and environmental compliance technologies IAW evolving regulatory requirements.	-	-	0.150
Accomplishments/Planned Programs Subtotals	2.884	2.757	2.836

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• Army Watercraft Systems: *Modification of In-Service Equipment*	137.459	72.271	59.141		59.141		91.990	84.325	63.497	Continuing	Continuing

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT 526: *MARINE ORIEN LOG EQ AD*

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT 526: *MARINE ORIEN LOG EQ AD*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support	SS/BA	PM Force Projection:TACOM	3.129	0.132		0.156		-		0.156	Continuing	Continuing	Continuing
		Subtotal	3.129	0.132		0.156		-		0.156			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Watercraft market surveys/ business analysis	Various	TBD:TBD	1.208	-		0.150		-		0.150	Continuing	Continuing	Continuing
JETA-SPOD-Vessel to Shore Bridging (VSB)	Various	ERDC,:Washington, DC	11.665	-		-		-		-	Continuing	Continuing	Continuing
C4ISR	C/FFPLOE	SPAWAR:Charleston, SC	-	0.276		0.150		-		0.150	Continuing	Continuing	0.000
Force Protection	C/FFPLOE	Carderock:Crane, IN	-	0.461		0.350		-		0.350	Continuing	Continuing	0.000
Heavy Lift Vessel	C/FFPLOE	TBD:TBD	-	0.461		0.200		-		0.200	Continuing	Continuing	0.000
LCM 8	C/FFPLOE	TBD:TBD	-	0.461		0.150		-		0.150	0.000	0.611	0.000
People Pods	C/FFPLOE	PM Force Sustainment Systems:Natick, MA	-	0.461		0.300		-		0.300	Continuing	Continuing	0.000
VSB	C/FFPLOE	TBD:TBD	-	0.505		0.230		-		0.230	0.000	0.735	0.000
Watercraft - Riverine Craft	C/FFPLOE	TBD:TBD	-	-		0.150		-		0.150	0.000	0.150	0.000
Watercraft - Tug and Barge	C/FFPLOE	TBD:TBD	-	-		0.150		-		0.150	0.000	0.150	0.000
Watercraft - Terminal Operations	C/FFPLOE	TBD:TBD	-	-		0.200		-		0.200	0.000	0.200	0.000
Watercraft - Port/Harbor Utility	C/FFPLOE	TBD:TBD	-	-		0.150		-		0.150	0.000	0.150	0.000
Watercraft - Amphibious Craft	C/FFPLOE	TBD:TBD	-	-		0.100		-		0.100	0.000	0.100	0.000
Watercraft - Digital Integration	C/FFPLOE	SPAWAR:Charleston, SC	-	-		0.150		-		0.150	0.000	0.150	0.000
Watercraft - Energy Efficiency and Environmental Compliance	C/FFPLOE	Various:Various	-	-		0.150		-		0.150	0.000	0.150	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT 526: *MARINE ORIEN LOG EQ AD*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Watercraft - At Sea Transfer	C/FFPLOE	TBD:TBD	-	-		0.100		-		0.100	0.000	0.100	0.000
		Subtotal	12.873	2.625		2.680		-		2.680			

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	16.002	2.757		2.836		-		2.836			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	**PROJECT** 526: *MARINE ORIEN LOG EQ AD*

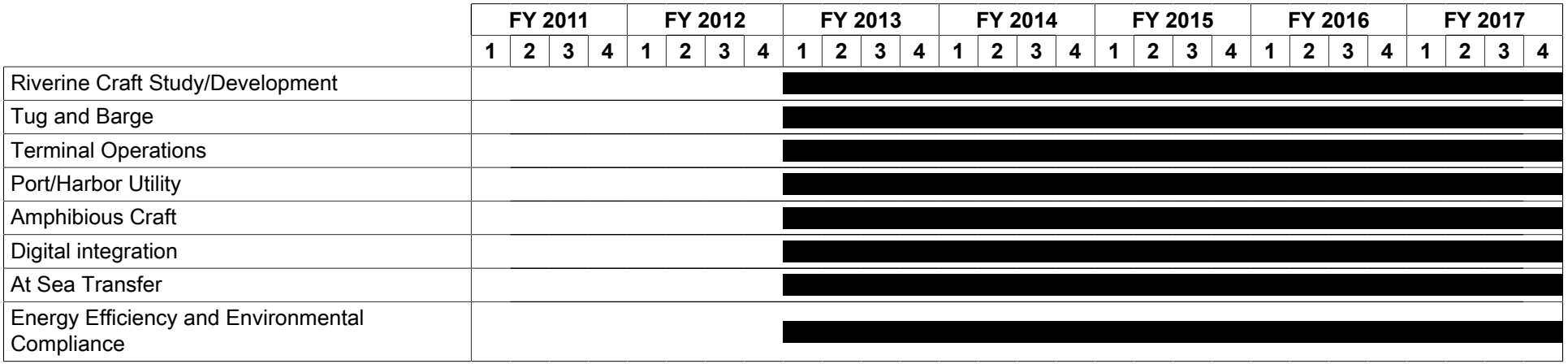

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	**PROJECT** 526: *MARINE ORIEN LOG EQ AD*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Riverine Craft Study/Development	1	2013	4	2017
Tug and Barge	1	2013	4	2017
Terminal Operations	1	2013	4	2017
Port/Harbor Utility	1	2013	4	2017
Amphibious Craft	1	2013	4	2017
Digital integration	1	2013	4	2017
At Sea Transfer	1	2013	4	2017
Energy Efficiency and Environmental Compliance	1	2013	4	2017

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
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COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
G11: *ADV ELEC ENERGY CON AD*	2.531	0.690	3.921	-	3.921	0.708	0.675	7.378	4.230	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Not Applicable for this item.

A. Mission Description and Budget Item Justification

The Mobile Electric Power (MEP) program was established by the Department of Defense to develop modernized, standard families of mobile electric power sources and power distribution systems for all Services throughout the Department of Defense. This Project Office derives concept and technology developments that will improve the performance, mobility, readiness and survivability of the next generation of tactical power sources in support of all Services. It supports initiatives that are essential to the development and fielding of modernized MEP sources from Watts to Megawatts level that comply with environmental statues and provide noise and signature-suppressed, energy-efficient, lightweight, deployable and reliable equipment. FY12-13 will fund test and evaluation of technologies for Large Advanced Mobile Power Sources (LAMPS), STEP, alternative energy, and Intelligent Power Distribution Systems.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Contract Activity	0.700	-	2.409
Articles:	0		
Description: Continue development of technology supporting the Large Advanced Mobile Power Sources (LAMPS) program, the Small Tactical Electric Power (STEP) programs, Intelligent Power Management and Distribution Systems (IPMDS), and Alternative Energy Sources.			
FY 2011 Accomplishments: Procured various technologies related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts included an improved 1 kW JP-8 fueled generator, hybrid/alternative energy power sources, and intelligent power distribution/management systems.			
FY 2013 Plans: Procure various technologies related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts will include STEP components, hybrid/alternative energy power sources, and intelligent power distribution/management systems.			
Title: Government System Test and Evaluation	0.470	0.080	0.291
Articles:	0	0	

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Continue development of technology supporting the Small Tactical Electric Power (STEP) programs, Intelligent Power Management and Distribution Systems (IPMDS), and Alternative Energy Sources. ***FY 2011 Accomplishments:*** Evaluated and tested various technologies related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts included performance testing of an improved 1 kW JP-8 fueled generator, safety testing for hybrid/alternative energy power sources, and performance tests of intelligent power distribution/management systems. ***FY 2012 Plans:*** Evaluation and testing of various technologies related to tactical electric power and power distribution/management across the DoD power spectrum. Efforts will be aimed at resolving technology gaps to meet Army User requirements. Efforts will support the Tactical Electric Power Capabilities Production Document (TEP CPD). Specific efforts will include performance testing of small generator sets, hybrid/alternative energy power sources, and intelligent power distribution/management systems. Also supports new equipment demonstrations at Network Integration Evaluation (NIE) 12.2 and 13.1. ***FY 2013 Plans:*** Continue evaluation and testing of various technologies related to tactical electric power and power distribution and management across the DoD power spectrum. Efforts will be aimed at resolving technology gaps to meet Army User requirements. Efforts will support the Tactical Electric Power Capabilities Production Document (TEP CPD). Specific efforts will include performance testing of small generator sets, hybrid/alternative energy power sources, and intelligent power distribution/management systems. Program also supports Rapid Equipping Force deployments of alternative energy systems in support of Village Stability Operation.			
Title: Other Contracts and Gov't agencies	1.125	0.506	0.994
Articles:	0	0	
Description: Continue development of technology supporting the Large Advanced Mobile Power Sources (LAMPS) program, the Small Tactical Electric Power (STEP) programs, Intelligent Power Management and Distribution Systems (IPMDS), and Alternative Energy Sources. ***FY 2011 Accomplishments:*** Continued evaluation, in-house testing, and procurement documentation preparation supporting various technologies related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts included developing test plans and analyzing data for a 1 kW JP-8 fueled generator, hybrid/alternative energy power sources, and intelligent power distribution/management systems. ***FY 2012 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Evaluation and testing of various technologies related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts will include development of STEP, and evaluation of hybrid/alternative energy power sources and intelligent power distribution/management systems. ***FY 2013 Plans:*** Evaluation and testing of various technologies related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts will include development of STEP, and evaluation of hybrid/alternative energy power sources and intelligent power distribution/management systems.			
Title: Government Program Management ***Articles:*** ***Description:*** Continue development of technology supporting the Large Advanced Mobile Power Sources (LAMPS) program, the Small Tactical Electric Power (STEP) programs, Intelligent Power Management and Distribution Systems (IPMDS), and Alternative Energy Sources. ***FY 2011 Accomplishments:*** Provided oversight, evaluation and management of various technology projects and testing related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts were directed towards a 1 kW JP-8 fueled generator, hybrid/alternative energy power sources, and intelligent power distribution/management systems. ***FY 2012 Plans:*** Oversight and management of various technology projects related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Efforts will be aimed at resolving technology gaps to meet Army User requirements. Efforts will support the STEP program and the Tactical Electric Power Capabilities Production Document (TEP CPD). Specific efforts will include development of large sets, hybrid/alternative energy power sources, and intelligent power distribution/management systems. ***FY 2013 Plans:*** Oversight and management of various technology projects related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Efforts will be aimed at resolving technology gaps to meet Army User requirements. Efforts will support the STEP program and the Tactical Electric Power Capabilities Production Document (TEP CPD). Specific efforts will include hybrid/alternative energy power sources, and intelligent power distribution/management systems.	0.236 0	0.104 0	0.227
Accomplishments/Planned Programs Subtotals	2.531	0.690	3.921

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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• 654804.194: *Logistics and Engineer Equipment - Eng Dev 194*	6.919	11.188	9.692		9.692		8.479	7.675	4.637	Continuing	Continuing
• MA9800: *OPA 3, Generators and Associated Eq.*	191.915	67.897	60.302		60.302		178.107	244.083	231.742	Continuing	Continuing

D. Acquisition Strategy

Complete advanced development pre-milestone B technology assessments and analysis, and transition of tactical electric power and power distribution products to Engineering and Manufacturing Development (EMD) phase (Milestone B) and subsequent transition to production (Milestone C).

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT G11: *ADV ELEC ENERGY CON AD*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Step Components	TBD	PM-MEP:Fort Belvoir, VA	0.176	0.060		0.100		-		0.100	Continuing	Continuing	0.000
LAMPS Components	TBD	PM-MEP:Fort Belvoir, VA	0.089	-		-		-		-	Continuing	Continuing	Continuing
Alternative Energy	TBD	PM MEP:Ft. Belvoir, VA	0.125	0.022		0.067		-		0.067	Continuing	Continuing	Continuing
Power Distribution/ Management	TBD	PM MEP:Ft. Belvoir, VA	0.103	0.022		0.060		-		0.060	Continuing	Continuing	Continuing
Small Business Innovative Research/Small Business Technology Transfer Programs	TBD	TBD:TBD	0.066	-		-		-		-	Continuing	Continuing	0.000
		Subtotal	0.559	0.104		0.227		-		0.227			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
STEP Components	TBD	CERDEC:Fort Belvor, VA	0.590	-		1.500		-		1.500	Continuing	Continuing	Continuing
LAMPS Components	TBD	CERDEC:Fort Belvoir, VA	0.140	-		-		-		-	Continuing	Continuing	Continuing
AMMPS Components	TBD	CERDEC:Fort Belvoir, VA	0.001	-		-		-		-	0.000	0.001	0.000
Alternative Energy	TBD	Multiple Vendors:TBD	0.815	-		0.500		-		0.500	Continuing	Continuing	Continuing
Power Distribution/ Management	TBD	CERDEC:Fort Belvoir, VA	0.250	-		0.409		-		0.409	Continuing	Continuing	Continuing
		Subtotal	1.796	-		2.409		-		2.409			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
STEP Components	TBD	CERDEC:Fort Belvoir, VA	0.300	0.106		0.500		-		0.500	Continuing	Continuing	Continuing
AMMPS Components	TBD	CERDEC:Fort Belvoir, VA	0.059	-		-		-		-	0.000	0.059	0.000
LAMPS Components	TBD	CERDEC:Fort Belvoir, VA	0.300	-		-		-		-	Continuing	Continuing	Continuing
Alternative Energy	TBD	CERDEC:Fort Belvoir, VA	0.465	0.200		0.300		-		0.300	Continuing	Continuing	Continuing
Power Distribution/ Management	TBD	CERDEC:Fort Belvoir, VA	0.474	0.200		0.194		-		0.194	Continuing	Continuing	Continuing
		Subtotal	1.598	0.506		0.994		-		0.994			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
STEP Components	TBD	CERDEC:Fort Belvoir,VA	0.150	0.030		0.200		-		0.200	Continuing	Continuing	Continuing
Alternative Energy	TBD	CERDEC:Fort Belvoir, VA	0.115	0.050		0.050		-		0.050	Continuing	Continuing	Continuing
Power Distribution/ Management	TBD	CERDEC:Fort Belvoir, VA	0.306	-		0.041		-		0.041	Continuing	Continuing	Continuing
		Subtotal	0.571	0.080		0.291		-		0.291			

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	4.524	0.690		3.921		-		3.921			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT G11: *ADV ELEC ENERGY CON AD*

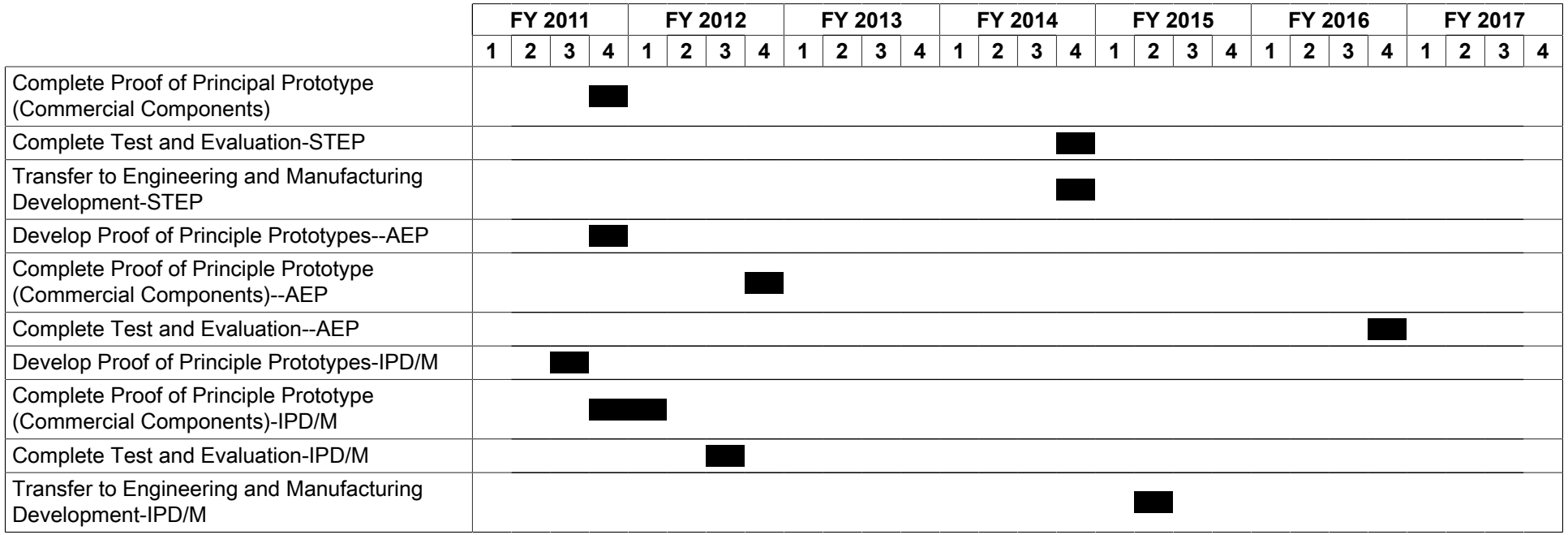

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	**PROJECT** G11: *ADV ELEC ENERGY CON AD*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Complete Proof of Principal Prototype (Commercial Components)	4	2011	4	2011
Complete Test and Evaluation-STEP	4	2014	4	2014
Transfer to Engineering and Manufacturing Development-STEP	4	2014	4	2014
Develop Proof of Principle Prototypes--AEP	4	2011	4	2011
Complete Proof of Principle Prototype (Commercial Components)--AEP	4	2012	4	2012
Complete Test and Evaluation--AEP	4	2016	4	2016
Develop Proof of Principle Prototypes-IPD/M	3	2011	3	2011
Complete Proof of Principle Prototype (Commercial Components)-IPD/M	4	2011	1	2012
Complete Test and Evaluation-IPD/M	3	2012	3	2012
Transfer to Engineering and Manufacturing Development-IPD/M	2	2015	2	2015

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT G14: *MATERIALS HANDLING EQUIPMENT - AD*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
G14: *MATERIALS HANDLING EQUIPMENT - AD*	-	-	0.149	-	0.149	0.895	0.750	0.304	0.304	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project supports component development and Material Handling Equipment (MHE) prototyping and stays abreast of emerging and available technologies to be integrated into military MHE to address identified capability gaps and warfighter objectives. This project enables the development of selected technologies and transition to system integration and development or production of MHE products. MHE includes Rough Terrain Forklifts, Rough Terrain Container Handlers and Cranes, as well as ancillary MHE equipment, to support distribution of critical supplies in the theater of operations. FY13 funding will allow innovative maintenance support technologies to be investigated with the goal to improve diagnostic tasks and to reduce safety and environmental hazards when performing maintenance on tactical MHE in the field.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: Field Maintenance Aids for MHE	-	-	0.149
Description: Field Maintenance Aids for MHE ***FY 2013 Plans:*** Evaluate the efficacy of proposed devices to improve diagnostic tasks and to prevent spillage of hazardous materials.			
Accomplishments/Planned Programs Subtotals	-	-	0.149

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• RDT&E: *0604804A, Logistics and Engineer Equipment, Engineering Development (H14)*	0.920	1.055	1.415		1.415		0.512	0.943	0.964	Continuing	Continuing

D. Acquisition Strategy

Procure prototype test items for engineering tests and demonstrations with subject matter experts. Conduct trades between cost and improved maintainability and environmental risk reduction. Process engineering change proposals, update technical manuals and training materials, and prepare supporting acquisition documents and data to procure new training aids.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	**PROJECT** G14: *MATERIALS HANDLING EQUIPMENT - AD*

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT G14: *MATERIALS HANDLING EQUIPMENT - AD*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Field Maintenance Aids for MHE	TBD	Kalmar RT Center:Cibolo, TX	-	-		0.087		-		0.087	0.000	0.087	0.000
		Subtotal	-	-		0.087		-		0.087	0.000	0.087	0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Field Maintenance Aids for MHE	MIPR	TARDEC:Warren, MI	-	-		0.022		-		0.022	0.000	0.022	0.000
		Subtotal	-	-		0.022		-		0.022	0.000	0.022	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Field Maintenance Aids for MHE	TBD	TBD:TBD	-	-		0.040		-		0.040	Continuing	Continuing	0.000
		Subtotal	-	-		0.040		-		0.040			0.000

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		0.149		-		0.149			0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	**PROJECT** G14: *MATERIALS HANDLING EQUIPMENT - AD*

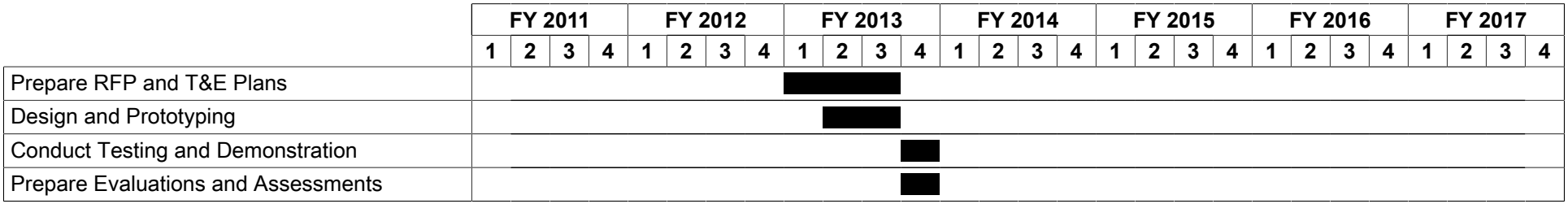

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	**PROJECT** G14: *MATERIALS HANDLING EQUIPMENT - AD*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Prepare RFP and T&E Plans	1	2013	3	2013
Design and Prototyping	2	2013	3	2013
Conduct Testing and Demonstration	4	2013	4	2013
Prepare Evaluations and Assessments	4	2013	4	2013

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K39: *Field Sustainment Support AD*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
K39: *Field Sustainment Support AD*	18.237	2.998	2.970	-	2.970	3.526	3.571	3.107	3.159	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project supports development of critical soldier support and sustainment systems including shelter systems (rigid and soft wall), cargo aerial delivery, field service systems, mortuary affairs equipment, heaters, camouflage systems to counter emerging enemy threat technologies, and other combat service support equipment. These systems will fill identified theater distribution and services capability gaps, improve unit sustainability, and increase combat effectiveness. This project also supports Advanced Component Development and Prototyping of Critical Distribution Capabilities to include cargo aerial delivery systems; which provide improved safety and accuracy while increasing survivability of aircraft, personnel, and equipment. The project supports the development of tactical heater systems that support mobile Joint Service command and control, medical, and maintenance platforms. This project develops critical enablers that support the Quartermaster (QM) Force Transformation Strategy and The Army's Modular Capabilities by maintaining readiness through fielding and integrating new equipment. This project also ensures Army Expeditionary Forces are capable of rapid deployment through aerial delivery initiatives and reduces sustainment requirements, related Combat Support/Combat Service Support (CS/CSS) demands in lift, combat zone footprint, and costs for logistical support.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Low Cost Aerial Delivery System P3I (LCADS)	1.600	0.700	-
Articles:	0	0	
Description: LCADS is a modular suite of low cost, expendable parachute/container air items that can be used in lieu of current low and high velocity systems. System includes a low-cost container, high-velocity parachute (70 - 90 feet per second (fps)) and low-velocity parachute (less than 28.5 fps). System is compatible with United States Air Force Aircraft (USAF A/C) and aerial port handling equipment. LCADS is a proven means to execute critical resupply missions without having to place soldiers and ground vehicle convoys on the road. ***FY 2011 Accomplishments:*** Continue execution of LCADS P3I effort to expand LCADS/Low Cost Low Altitude (LCLA) capability based upon theater feedback and Combined Arms Support Command (CASCOM) guidance. (i.e. increased LCLA weights and additional A/C certifications). ***FY 2012 Plans:*** Improvement of LCLA cross and Low velocity parachutes.			
Title: Joint Precision Airdrop System 2,400 pounds (JPADS 2K)	6.000	-	-
Articles:	0		

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K39: *Field Sustainment Support AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: JPADS 2K is a Precision Guided Airdrop system that autonomously navigates along a predetermined glide and flight path to accurately deliver supplies and equipment. Its two primary components, a decelerator and an Autonomous Guidance Unit (AGU), interface with the USAF JPADS mission planner and has a gross rigged weight of 2,400 lbs. ***FY 2011 Accomplishments:*** Continues the Execution of JPADS 2K Pre-Planned Product Improvement efforts. Transition effort into systems development and demonstration.			
Title: Advanced Cargo Parachute Release System (ACPRS) ***Articles:*** ***Description:*** The ACPRS will replace the existing M-1 and M-2 cargo parachute release and is intended to decrease the number of inoperable payloads due to rollovers, while also providing a capability to airdrop loads at 500 ft Above Ground Level (AGL). ***FY 2011 Accomplishments:*** Continue the Developmental Testing (DT) and Operational Testing (OT) for ACPRS. ***FY 2012 Plans:*** Initiate OT and work towards Milestone C/Full rate Production Decision.	2.208 0	0.500 0	-
Title: Advanced Low Velocity Airdrop System Light and Heavy (ALVADS-L or ALVADS-H) ***Articles:*** ***Description:*** ALVADS - Light and Heavy are capable of airdrop operations at an altitude of 500-ft Above Ground Level (AGL) with increased aircraft survivability, and improved accuracy. Light Gross rigged weight of 2,520-22,000 pounds (lbs) and Heavy Gross rigged weight of 22,001-42,000 lbs. ***FY 2011 Accomplishments:*** Test possible prototype candidates, prior to beginning formal Design validation Testing ***FY 2012 Plans:*** Conduct ALVADS-L Design Validation (DV) testing. ***FY 2013 Plans:*** Complete ALVADS-L Design Validation (DV), initiate Developmental Testing (DT) and complete Milestone A for ALVADS-H.	1.500 0	1.352 0	1.400
Title: Space Heater Convective 90,000 BTU (SHC 90K) ***Articles:***	0.350 0	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K39: *Field Sustainment Support AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: The SHC 90K is a self-powered, thermoelectric heater that operates outside the tent and provides forced hot air circulation without the need for an external power supply (i.e., field generator). The SHC 90K generates its own electrical power, without any moving parts, through the use of thermoelectric modules located inside the combustion chamber that convert waste heat into electricity. The internal generation of electrical power gives the SHC 90K the added capabilities of single switch operation, forced hot air circulation, outside the tent operation, completely automatic safety and temperature controls, built-in troubleshooting diagnostics, operation without the need for a fire guard, and significantly higher combustion efficiencies, all without the need for an external power supply. The heater burns multi-fuels and operates in extreme cold temperatures down to -60oF. ***FY 2011 Accomplishments:*** Conduct developmental testing and user field evaluation for SHC 120K. Prepare for transition to production and Milestone (MS) C decision.			
Title: Human Remains Transfer Case (HRTC) ***Articles:*** ***Description:*** A replacement for the current aluminum case for transporting remains from a theater of operation to Continental United States (CONUS) that incorporates insulation and refrigeration to provide optimal temperature control and eliminate use of ice and the need for reicing enroute. ***FY 2011 Accomplishments:*** Prepare Milestone B documentation and conduct test planning.	0.400 0	-	-
Title: Joint Modular Intermodal Container System (JMICS) ***Articles:*** ***Description:*** JMIC Program provides a standard series of durable, reusable, user friendly, easy to handle, modular containers with a standard interface that will provide an effective and efficient handling and distribution operation. JMICS can move by air, land, and sea transportation systems for unit and ship deployments and sustainment operations. The JMIC modular approach can, in some cases, replace current outer packaging for munitions and other supplies for movement in the Defense Transportation System (DTS). The JMIC will also complement the services future automated loading systems and automated handling and storage systems along with emerging capabilities such as Seabasing. ***FY 2011 Accomplishments:*** Conduct development testing (minimal) to support MS C production decision for JMIC 3.0K variant.	0.300 0	-	-
Title: Modular Ballistic Protection System (MBPS) ***Articles:***	0.900 0	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K39: *Field Sustainment Support AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: MBPS is a lightweight, rapidly deployable and reusable ballistic protection system that can be installed in commonly used military shelters in expeditionary and remote base camps and outposts where more robust forms of ballistic protection (i.e. sandbags, concrete barriers) are not readily available or logistically feasible. ***FY 2011 Accomplishments:*** Initiate Engineering and Manufacturing Development (EMD) effort for MBPS and provide prototypes.			
Title: Rapid Rigging and Derigging System (RRDAS) ***Articles:*** ***Description:*** RRDAS creates a roll-on and roll-off capability for rolling stock, reduces exposure time on the drop zone, and reduces reliance on energy-dissipating material (Honeycomb), thus reducing rigging and de-rigging time. ***FY 2012 Plans:*** Award competitive contracts for prototype systems for RRDAS and conduct initial testing of potential candidate systems. ***FY 2013 Plans:*** Obtain MS B and award competitive contracts for prototype systems for RRDAS. Begin Design Validation (DV) testing.	- -	0.446 0	1.570
Title: Zero-Footprint Contingency Base Camp ***Articles:*** ***Description:*** Zero-Footprint Base Camp reduces the operational energy and logistics footprint of the expeditionary base camp system, with the goal being a significant reduction in fuel, water, and power requirements to sustain operations in the field. Operating a base camp such as Force Provider requires a significant amount of logistics support and also produces an enormous amount of by products, both of which cost money, human effort (that means a risk in the form of soldiers on the road), and represents a potential vulnerability. ***FY 2011 Accomplishments:*** Conduct Delopmental Testing and Operational Testing (DT/OT) on Zero-Footprint Base Camp capabilities for Joint base camp systems in support of the Office of Secretary of Defense (OSD) Joint Expeditionary Basing Work Group initiative. Conduct evaluation of integrated technologies that are transitioning for the RDECOM 6.3 programs in a realistic operating environment at the Ft Devens Base Camp Systems Integration Laboratory (SIL). Efforts are focused on proving out subsystem maturity and the potential of these technologies before transitioning into System Development and Demonstration and putting them into operational use within the Army Force Provider base camps as a Pre-Planned Product Improvements (P3I). Focus will be on evaluating technologies that will improve upon the environmental and energy efficiency performance of the base camp. Specifically: 1) Evaluation of a variety of high performance insulating materials that are light-weight, durable, and cost effective; and 2) Integration	4.979 0	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K39: *Field Sustainment Support AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
and evaluation of micro-grid / smart power / renewable energy solutions that can be incorporated into the standard Army Force Provider modules.			
Accomplishments/Planned Programs Subtotals	18.237	2.998	2.970

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPA MA7806: *Precision Airdrop*	21.282	16.207	5.935		5.935		8.129	9.555	9.128	Continuing	Continuing
• OPA MA7807: *Containerized Delivery System*	6.467									0.000	6.467
• RDT&E 643804.VR8: *Combat Service Support Systems AD*		2.074	2.023		2.023		2.039	2.375	2.415	Continuing	Continuing
• RDT&E 654804.L39: *Field Sustainment Support ED*	5.599	4.226	2.550		2.550		2.368	2.331	2.269	Continuing	Continuing
• RDT&E 654804.VR7: *Combat Service Support Systems*		2.544	1.745		1.745		1.708	1.883	1.915	Continuing	Continuing

D. Acquisition Strategy

Accelerate Joint Precision Aerial Delivery System (JPADS) product improvements to transition to Production.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K39: *Field Sustainment Support AD*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Support	Various	PM Force Sustainment Sys (FSS), Natick:Natick, MA	4.039	0.826		0.470		-		0.470	Continuing	Continuing	Continuing
		Subtotal	4.039	0.826		0.470		-		0.470			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Soldier Support Equipment	Various	PM Force Sustainment Sys (FSS), Natick:Natick, MA	15.934	-		-		-		-	Continuing	Continuing	Continuing
LCADS P3I Effort	Various	Various:Various	1.200	0.100		-		-		-	Continuing	Continuing	Continuing
JPADS 2K and 10K product improvements	Various	Various:Various	5.900	-		-		-		-	Continuing	Continuing	Continuing
RRDAS Development	Various	Various:Various	2.000	0.200		0.750		-		0.750	Continuing	Continuing	Continuing
ALVADS Development	Various	Various:Various	7.900	0.550		0.400		-		0.400	Continuing	Continuing	Continuing
Next Generation Human Remains Transfer Case Development	Various	Various:Various	2.220	-		-		-		-	Continuing	Continuing	Continuing
JMICS Development	Various	Various:Various	1.097	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	36.251	0.850		1.150		-		1.150			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ALVADS-Light Testing Design Validation(DV). ALVADS-Heavy S&T Test	Various	YPG, AZ:YPG, AZ	7.500	0.502		0.800		-		0.800	Continuing	Continuing	Continuing
ECDS P3I	Various	DTC/OTC:Various	1.050	-		-		-		-	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K39: *Field Sustainment Support AD*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
RRDAS Design Validation (DV) Testing	Various	YPG, AZ:YPG, AZ	-	0.150		0.550		-		0.550	Continuing	Continuing	Continuing
ACPRS	Various	Ft Bragg, NC:NC	-	0.220		-		-		-	0.000	0.220	0.000
JPADS Testing	Various	YPG:Yuma Proving Ground, AZ	1.050	-		-		-		-	Continuing	Continuing	Continuing
LCADS P3I	Various	DTC, YPG, OTC, FT Bragg:Various	3.857	0.450		-		-		-	Continuing	Continuing	Continuing
SHC 90K Developmental Testing and User Field Evaluation	Various	ATC:Various	0.400	-		-		-		-	Continuing	Continuing	Continuing
Human Remains Transfer Case Developmental Testing	Various	ATC:Various	0.400	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	14.257	1.322		1.350		-		1.350			

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	54.547	2.998		2.970		-		2.970			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K39: *Field Sustainment Support AD*

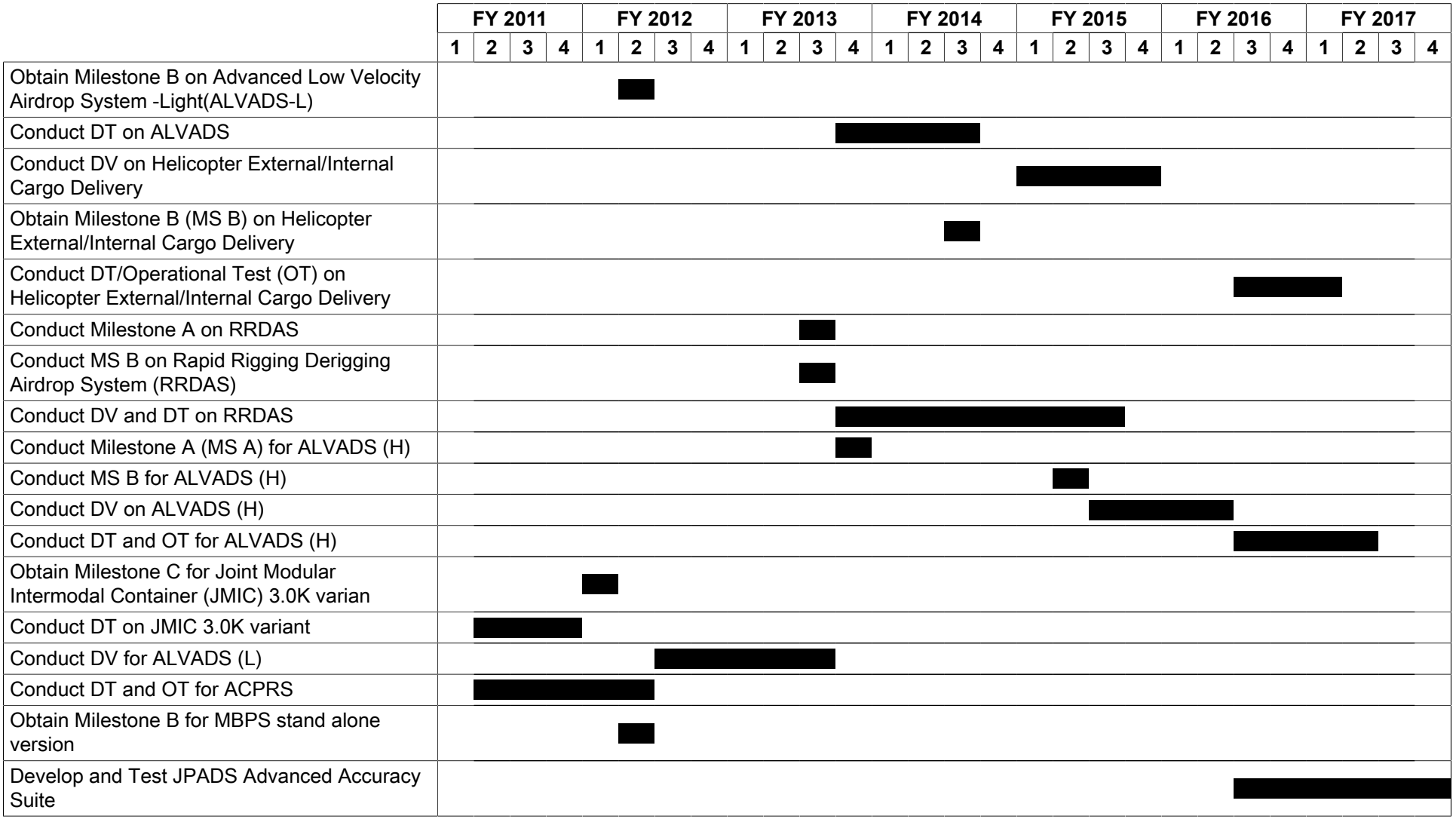

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K39: *Field Sustainment Support AD*

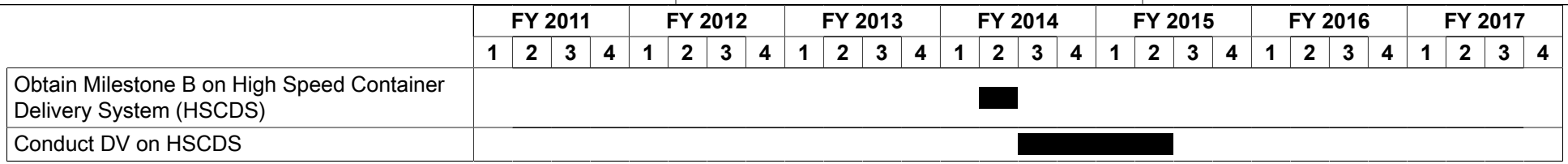

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	**PROJECT** K39: *Field Sustainment Support AD*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Obtain Milestone B on Advanced Low Velocity Airdrop System -Light(ALVADS-L)	2	2012	2	2012
Conduct DT on ALVADS	4	2013	3	2014
Conduct DV on Helicopter External/Internal Cargo Delivery	1	2015	4	2015
Obtain Milestone B (MS B) on Helicopter External/Internal Cargo Delivery	3	2014	3	2014
Conduct DT/Operational Test (OT) on Helicopter External/Internal Cargo Delivery	3	2016	1	2017
Conduct Milestone A on RRDAS	3	2013	3	2013
Conduct MS B on Rapid Rigging Derigging Airdrop System (RRDAS)	3	2013	3	2013
Conduct DV and DT on RRDAS	4	2013	3	2015
Conduct Milestone A (MS A) for ALVADS (H)	4	2013	4	2013
Conduct MS B for ALVADS (H)	2	2015	2	2015
Conduct DV on ALVADS (H)	3	2015	2	2016
Conduct DT and OT for ALVADS (H)	3	2016	2	2017
Obtain Milestone C for Joint Modular Intermodal Container (JMIC) 3.0K varian	1	2012	1	2012
Conduct DT on JMIC 3.0K variant	2	2011	4	2011
Conduct DV for ALVADS (L)	3	2012	3	2013
Conduct DT and OT for ACPRS	2	2011	2	2012
Obtain Milestone B for MBPS stand alone version	2	2012	2	2012
Develop and Test JPADS Advanced Accuracy Suite	3	2016	4	2017
Obtain Milestone B on High Speed Container Delivery System (HSCDS)	2	2014	2	2014
Conduct DV on HSCDS	3	2014	2	2015

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K41: *WATER AND PETROLEUM DISTRIBUTION - AD*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
K41: *WATER AND PETROLEUM DISTRIBUTION - AD*	2.493	4.187	2.706	-	2.706	3.118	3.104	2.972	3.022	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project develops and demonstrates the potential of prototype equipment and technologies to satisfy petroleum storage, distribution, and quality surveillance system requirements. The Concept and Technology Development program supports the development and enhancement of rapidly deployable Petroleum and Water equipment. The mission includes developing onboard fuels quality analysis systems; achieving greater capabilities in the removal of Nuclear, Biological, Chemical (NBC) and other contaminates from water sources; reducing the logistics foot print; developing water reutilization systems to reduce the requirement for transport of water into the theater; and material systems to decrease the logistics foot print and employment time for the transfer of liquid logistics in the theater. This vital equipment enables the Army to achieve its mission by providing the Army with the means to be highly mobile and self-sustaining in very hostile theaters of operations. Future Force operations demand that combat systems be rapidly deployable to the theater, rapidly emplaced upon arrival, and rapidly relocated to support a fast moving non-linear battlefield.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Water System Capability Improvements	0.342	0.265	0.250
Articles:	0	0	
Description: Funding is provided for the following effort			
FY 2011 Accomplishments: Develop pressure hold test for Lightweight Water Purifier (LWP) ultrafilters.			
FY 2012 Plans: Evaluate improved Tactical Water Purification Systems (TWPS) microfilters.			
FY 2013 Plans: Develop alternative protectant membranes for Tactical Water Purification Systems (TWPS) and Lightweight Water Purifier (LWP).			
Title: Initiate effort to develop a mobile Water Packaging System .	0.400	1.500	-
Articles:	0	0	
Description: Funding is provided for the following effort			
FY 2011 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Initiate effort to develop mobile water packaging system and prepare market investigation material. ***FY 2012 Plans:*** Prepare program documentation and purchase demonstration system.			
Title: Initiate effort to develop a bulk water purification system ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2011 Accomplishments:*** Initiate effort to develop a 3K Tactical Water Purification System (TWPS). Conduct market surveys and develop preliminary designs. ***FY 2012 Plans:*** Perform pilot test of potential components. ***FY 2013 Plans:*** Fabricate full scale prototype 3K Tactical Water Purification System (TWPS).	0.450 0	0.822 0	2.096
Title: Improvements for Family of Fuel System Supply Points (FSSPs) ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2011 Accomplishments:*** Continue Fuel Systems improvements for Family of Fuel System Supply Points (FSSPs).	1.101 0	-	-
Title: Water monitoring equipment. ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2011 Accomplishments:*** Development of in-line water monitoring equipment and hand-held water monitors for use on the Tactical Water Purification Systems (TWPS), Lightweight Water Purifier (LWP) and Reverse Osmosis Water Purification Unit (ROWPU). ***FY 2012 Plans:*** Integrate and test in-line water quallity analysis equipment developed under TARDEC S&T program.	0.200 0	0.200 0	-
Title: Fuel System Supply Points (FSSPs)	-	1.300	0.360

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K41: *WATER AND PETROLEUM DISTRIBUTION - AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Articles:		0	
Description: Funding is provided for the following effort ***FY 2012 Plans:*** Develop prototype common pumping assembly for use in all Fuel System Supply Points (FSSPs). Test prototype automated tank gauging for collapsible fabric tanks in FSSPs. ***FY 2013 Plans:*** Address the capability gap for automated gauging to capture fuel quantities in collapsible tanks in the Fuel System Supply Point (FSSP). This includes the development of a data device that will transmit and store the data internally for the system and externally to high command.			
Title: Modular Tactical Refueling System (MTRS)	-	0.100	-
Articles:		0	
Description: Funding is provided for the following effort ***FY 2012 Plans:*** Product development of the Modular Tactical Refueling System (MTRS). Down select components and begin subassemble.			
Accomplishments/Planned Programs Subtotals	2.493	4.187	2.706

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PM PAWS Project L41 654804: *Logisitics and Engineer Equipment - Engineering Development*	2.636	2.077	3.839		3.839		3.615	3.726	3.789	Continuing	Continuing
• 150 Water Purification Systems: *Water Purification Systems*	15.683									Continuing	Continuing
• Distribution Sys Petroleum & Water: *Distribution Systems Petroleum & Water*	230.174	75.457	36.266		36.266		93.778	87.714	75.551	Continuing	Continuing

D. Acquisition Strategy

C. Develop engineering prototypes or select Non-Developmental Item based on market surveys and proposals from industry. Competitive; sole source contracts.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
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E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K41: *WATER AND PETROLEUM DISTRIBUTION - AD*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Water Purification Components Improvements	Various	TBD:TBD	0.645	0.100		0.100		-		0.100	Continuing	Continuing	Continuing
Bulk Water Treatment System (3 K TWPS)	Various	TARDEC:Warren, MI	0.061	0.100		0.596		-		0.596	Continuing	Continuing	Continuing
Water Quality Monitoring	Various	TARDEC:Warren, MI	0.250	0.020		-		-		-	Continuing	Continuing	Continuing
Bulk Water Treatment System	Various	NFESC:Port Hueneme, CA	0.389	0.300		0.600		-		0.600	Continuing	Continuing	Continuing
Packaged Water System (EWPS)	Various	TARDEC:Warren,MI	0.300	-		-		-		-	Continuing	Continuing	Continuing
Packaged Water System (EWPS)	Various	NFESC:Port Hueneme,CA	0.500	-		-		-		-	Continuing	Continuing	Continuing
Petroleum Quality Analysis System Enhanced	Various	TARDEC:TARDEC Warren, MI	0.155	-		-		-		-	Continuing	Continuing	Continuing
Fuel Systems Components Improvements	RO	TARDEC:Warren, MI	0.451	-		-		-		-	Continuing	Continuing	Continuing
Fuel Gauging Improvements	Various	TBD:TBD	0.550	-		0.360		-		0.360	Continuing	Continuing	Continuing
Future Fuel Storage System	RO	TBD:TBD	0.247	-		-		-		-	Continuing	Continuing	Continuing
Bulk Fuel Distribution	Various	TBD:TBD	0.704	0.700		-		-		-	Continuing	Continuing	Continuing
Expeditionary Water Packaging System (EWPS)	SS/ FFPLOE	TARDEC:Warren, MI	-	1.500		-		-		-	Continuing	Continuing	Continuing
Bulk Water Treatment (3K TWPS)	C/CPFF	TARDEC:TARDEC Warren, MI	-	-		-		-		-	Continuing	Continuing	Continuing
Modular Tactical Refueling System (MTRS)	RO	TARDEC:Warren, MI	-	0.100		-		-		-	Continuing	Continuing	0.000
		Subtotal	4.252	2.820		1.656		-		1.656			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K41: *WATER AND PETROLEUM DISTRIBUTION - AD*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Water Purification Components Improvements	Various	TARDEC:Warren, MI	0.853	-		0.150		-		0.150	Continuing	Continuing	Continuing
Water Quality Monitoring	Various	TARDEC:Warren, MI	0.150	-		-		-		-	Continuing	Continuing	Continuing
Bulk Water Treatment System (3K TWPS)	Various	TARDEC:Warren, MI	-	-		0.500		-		0.500	Continuing	Continuing	Continuing
		Subtotal	1.003	-		0.650		-		0.650			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Water Purification Components Improvements	Various	TARDEC:Warren, MI	1.016	0.165		-		-		-	Continuing	Continuing	Continuing
Water Quality Monitoring	Various	TARDEC:Warren, MI	0.150	0.150		-		-		-	Continuing	Continuing	Continuing
Water Quality Monitoring	Various	Aberdeen Proving Ground,MD:APG, MD	-	0.030		-		-		-	Continuing	Continuing	Continuing
3K TWPS	RO	TARDEC:Warren, MI	-	0.422		0.400		-		0.400	0.000	0.822	0.000
Fuel Pumping Assembly Improvements	Various	TARDEC:Warren, MI	0.100	0.600		-		-		-	Continuing	Continuing	Continuing
		Subtotal	1.266	1.367		0.400		-		0.400			

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.521	4.187		2.706		-		2.706			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	**PROJECT** K41: *WATER AND PETROLEUM DISTRIBUTION - AD*

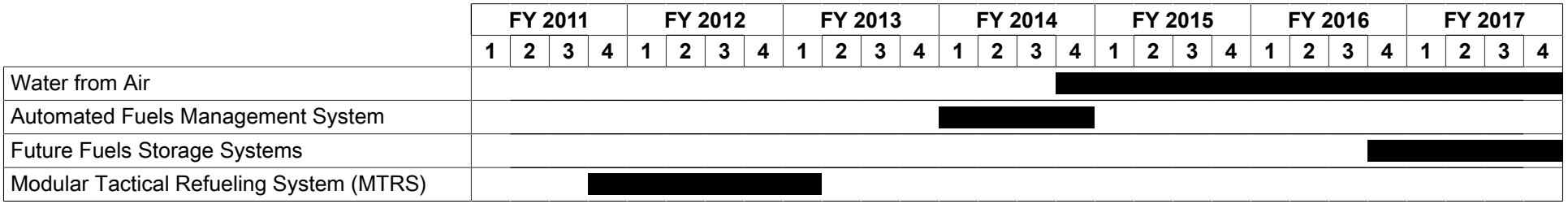

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	**PROJECT** K41: *WATER AND PETROLEUM DISTRIBUTION - AD*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Water from Air	4	2014	4	2017
Automated Fuels Management System	1	2014	4	2014
Future Fuels Storage Systems	4	2016	4	2017
Modular Tactical Refueling System (MTRS)	4	2011	1	2013

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K42: *MATERIEL SUSTAINMENT SUPPORT AD*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
K42: *MATERIEL SUSTAINMENT SUPPORT AD*	0.446	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Project was completed in FY11.

A. Mission Description and Budget Item Justification

This project supported Advanced Component Development and Prototypes of new and reformulated paints, paint removers, cleaners and other surface coating materials and processes for weapon systems production and maintenance operations. The project increased operational sustainment and warfighter training capabilities by reducing soldier health risks, environmental impacts and compliance enforcement actions against installations while increasing coatings performance and standardization across the Army. Materials and processes demonstrated under this project are inherently compliant with all applicable National Emissions Standards for Hazardous Air Pollutants that regulate surface coating activities, thereby eliminating the need for Army installations to incur hundreds of millions of dollars in expenses to purchase, install and operate air pollution control devices. This project transitioned advanced technologies developed under 0603728A, Environmental Quality Technology Demonstrations (025). The project tested and evaluated Sustainable Painting Operations for the Total Army (SPOTA) at facilities that produce and maintain Combat Support/Combat Service Support systems, Ground Combat Vehicles and other Army equipment. The project expedited technology transition from the laboratory to operational use by demonstrating the capabilities of new materials and processes to fulfill the performance requirements outlined in Material Specifications, Depot Maintenance Work Requirements, Technical Manuals and other technical data. Test and evaluation activities were executed by Research, Development and Engineering Command (RDECOM) centers and laboratories in cooperation with the affected Life Cycle Management Commands, Program Executive Offices and Program Managers. Materials were demonstrated at ten different Army facilities in order to minimize the disruption of materiel maintenance operations at any one facility.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Chemical Agent Resistant Coatings (CARC) and Non-CARC Paints	0.234	-	-
Articles:	0		
Description: Qualify, validate and approve reformulated CARC systems and other non-CARC paints and surface coatings.			
FY 2011 Accomplishments: Validated and approved non-chromate, low volatile organic compound pretreatments.			
Title: Solvents, Thinners and Cleaners	0.120	-	-
Articles:	0		

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Qualify, validate and approve hazardous air pollutant (HAP)-free solvents, thinners and cleaners. ***FY 2011 Accomplishments:*** Implemented alternative products in approved applications.			
Title: Depainting	0.071	-	-
Articles:	0		
Description: Qualify, validate and approve chemical paint removers containing no methylene chloride or other HAPs. ***FY 2011 Accomplishments:*** Approved and implemented alternative products for all ground vehicle depainting vats.			
Title: Sealants and Adhesives	0.021	-	-
Articles:	0		
Description: Qualify, validate and approve reformulated sealants and adhesives for high-use applications. ***FY 2011 Accomplishments:*** Approved and implemented all demonstrated alternative adhesives and sealants.			
Accomplishments/Planned Programs Subtotals	0.446	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• 0605857A 06I: *Environmental Quality Technology Mgmt Support (06I)*	0.042									0.000	0.042

D. Acquisition Strategy

The project transitioned demonstrated technology directly into the Army supply system by having National Stock Numbers assigned/reassigned and immediately made available for procurement by the Defense Logistics Agency and the General Services Administration. As acquisition managers approved the new materials and processes for use on their systems, technical writers specified them in the appropriate technical publications. The project was managed by the Environmental Acquisition and Logistics Sustainment Program Director at the Headquarters, U.S. Army Research Development and Engineering Command (RDECOM).

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT K42: *MATERIEL SUSTAINMENT SUPPORT AD*

E. Performance Metrics

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

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT L04: *JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
L04: *JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD*	36.408	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Joint Light Tactical Vehicles (JLTV): Funding supports the development and testing of the JLTV Family of Vehicles (FoV), which is being developed as a joint and international system between the Army and Marine Corps, and the Australian Army, participating under a Project Arrangement. The JLTV goal is a FoV with companion trailers capable of performing multiple mission roles that will be designed to provide protected, sustained, networked mobility for personnel and payloads across the full Range of Military Operations (RoMO). JLTV objectives include increased protection and performance over the current fleet; minimizing ownership costs by maximizing commonality, fuel efficiency and other means; and maintaining effective competition throughout the lifecycle. The JLTV FoV includes ten (10) sub-configurations (and companion trailers) in three payload categories. Commonality of components, maintenance procedures, training, etc., between vehicles and trailers is expected to be inherent in FoV solutions within and across Payload Categories to minimize FoV total ownership cost. Unique service requirements have been minimized.

FY11 major budget activities supported completion of the Technology Development (TD) phase testing, testing report submissions, and closeout of the TD prototype contracts. As the program progressed towards the Engineering and Manufacturing Development (EMD) phase, major budget activities supported staffing of the Capabilities Development Document, development of Milestone B documentation and the purchase of Government Furnished Equipment (GFE). Awaiting Acquisition Decision Memorandum (ADM) for approval to purchase GFE prior to Milestone B, therefore the program will carry over funding to FY 2012.

RDT&E funding will be provided under two new Program Elements - 0604804A, Project L50 for FY12 and 0605812A, Project VU9 for out-years.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: JLTV Program Management	7.700	-	-
Articles:	0		
Description: Funding is provided for the following effort			
FY 2011 Accomplishments: for salaries, in-house, etc.			
Title: JLTV Variant Prototype Contract Design, Development and Fabrication	24.308	-	-
Articles:	0		

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT L04: *JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Funding is provided for the following effort ***FY 2011 Accomplishments:*** For contract design and development			
Title: JLTV Technical and Development, Test and Evaluation	4.400	-	-
Articles:	0		
Description: Funding is provided for the following effort ***FY 2011 Accomplishments:*** JLTV Test Support			
Accomplishments/Planned Programs Subtotals	36.408	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PM JLTV Project L50: *Joint Light Tactical Vehicles (JLTV), 0604804A, Army RDTE Project L50*		87.217								0.000	87.217
• PM JLTV Project VU9: *Joint Light Tactical Vehicles (JLTV), 0605812A, Army RDTE Project VU9*			72.295		72.295		31.549	51.924	53.223	Continuing	Continuing
• PM JLTV D15603: *Joint Light Tactical Vehicles (JLTV), D15603, Army OPA 1*							167.408	299.238	516.722	Continuing	Continuing
• PM JLTV Project 3209 0603635M: *Marine Corps Ground Combat/Support Systems, 0603635M, RDTE Project 3209*	18.364	46.866								Continuing	Continuing
• PM JLTV Project 3209 0605812M: *Marine Corps Ground*			44.500		44.500		16.000	40.100	44.300	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT L04: *JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Combat/Support Systems, 0605812M, RDTE Project 3209											
• PM JLTV Project 5095: *Marine Corps Ground Combat/Support Systems, 0206221M, Production 5095*							24.500	87.300	134.900	Continuing	Continuing

D. Acquisition Strategy

The Joint Light Tactical Vehicle (JLTV) Acquisition Strategy for the Technology Demonstration (TD) phase, FY 2008 through FY 2011, is to competitively award multiple contracts. During this phase, the contractors will be required to design the JLTV Family of Vehicles (FoV) to the Preliminary Design Review level and fabricate and test selected prototypes and trailers for payload Categories A, B, and C. The TD phase contracts were awarded on October 29, 2008 under the full and open competition process to BAE Systems Land and Armament Systems-Ground Systems Division; General Tactical Vehicles (A Joint Venture of General Dynamics Land Systems, Inc. and AM General, LLC); and Lockheed Martin Systems Integration. The fabricated protoptypes will undergo developmental testing, as well as limited user assessments, in a relevant environment at Government test facilities. The addition of Australian protoptypes to the program will further reduce the risk. The goal is to ensure the family of protypes is mature in terms of supporting technologies and full system integration for Milestone B approval and entry into Engineering and Manufacturing Development (EMD) phase.

Joint Light Tactical Vehicles (JLTV) is a Joint Services Program with the U.S. Army and Marine Corps as the two main components. In addition, the Navy anticipates procuring JLTV vehicles upon successful Low Rate Initial Production (LRIP) testing. The program will use an evolutionary approach to deliver capabilities in increments based on program priorities. All technologies entering the current Engineering, Manufacturing and Development (EMD) phase shall be no less than Technology Readiness Level 6 to achieve Capabilities Development Document (CDD) requirements.

The program revised the acquisition strategy in the first quarter FY 2012 addressing Better Buying Power Initiatives, and reduced the schedule by 15 months to enable a 33-month Non-Developmental Item approach for EMD with Milestone B in third quarter of FY 2012. This initiative saves $400.0 million in the Future Years Defense Program (FYDP) for the Services.

Increment I will produce two Mission Role Variant (MRV) configurations (Combat Tactical Vehicle (CTV) and Combat Support Vehicle (CSV)) with mission packages (General Purpose, Heavy Guns Carrier, Close Combat Weapons Carrier and Utility/Shelter Carrier). EMD vendors will fabricate representative mission packages from both MRVs, which the Government will fully test during the EMD phase. Agreement was reached between the PM and user community to eliminate two mission packages, the Special Purpose (SP) and Command and Control On-The Move (C2OTM) vehicles which integrated WIN-T systems for the Army. Eliminating these unique vehicles reduces technical risk and cost of the JLTV EMD effort. It also eliminates duplicate development and relies on the WIN-T program's existing efforts to fund, integrate, and test their capabilities on other vehicles during the JLTV EMD schedule.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT L04: *JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD*

Through a full and open competition, the program anticipates awarding up to three firm-fixed price contracts for the EMD phase. Unless future market research identifies a valid non-EMD vendor capable of delivering the required capabilities, there will be a down-select from the EMD contractors to enter into the Production and Deployment phase. The down-select will result in a fixed-price type contract with a base LRIP quantity, LRIP options, full-rate production options, and a Technical Data Package option.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT L04: *JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JLTV Technical & Development Contract / Government Furnished Equipment (GFE)	C/CS	Various:TBD	10.416	-		-		-		-	Continuing	Continuing	Continuing
JLTV Program Management	Various	Various:TACOM, Warren, MI	7.700	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	18.116	-		-		-		-			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JLTV Variant Prototype Design	Various	Tank-Automotive Research, Development and Engineering Center (TARDEC):Warren, MI	3.854	-		-		-		-	0.000	3.854	0.000
JLTV Variant Prototype Design	Various	TACOM Life Cycle Management Command (LCMC) Offices:Warren, MI	3.341	-		-		-		-	0.000	3.341	0.000
JLTV Variant Prototype Design	Various	Other Governmnent Agencies:Various	3.291	-		-		-		-	0.000	3.291	0.000
JLTV Variant Prototype Design	Various	Defense Technical Information Center:Ft. Belvoir, VA	3.406	-		-		-		-	0.000	3.406	0.000
		Subtotal	13.892	-		-		-		-	0.000	13.892	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT L04: *JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JLTV Developmental Test Support	MIPR	Aberdeen Test Center:Aberdeen Proving Ground, MD	4.400	-		-		-		-	0.000	4.400	0.000
		Subtotal	4.400	-		-		-		-	0.000	4.400	0.000

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	36.408	-		-		-		-			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT L04: *JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD*

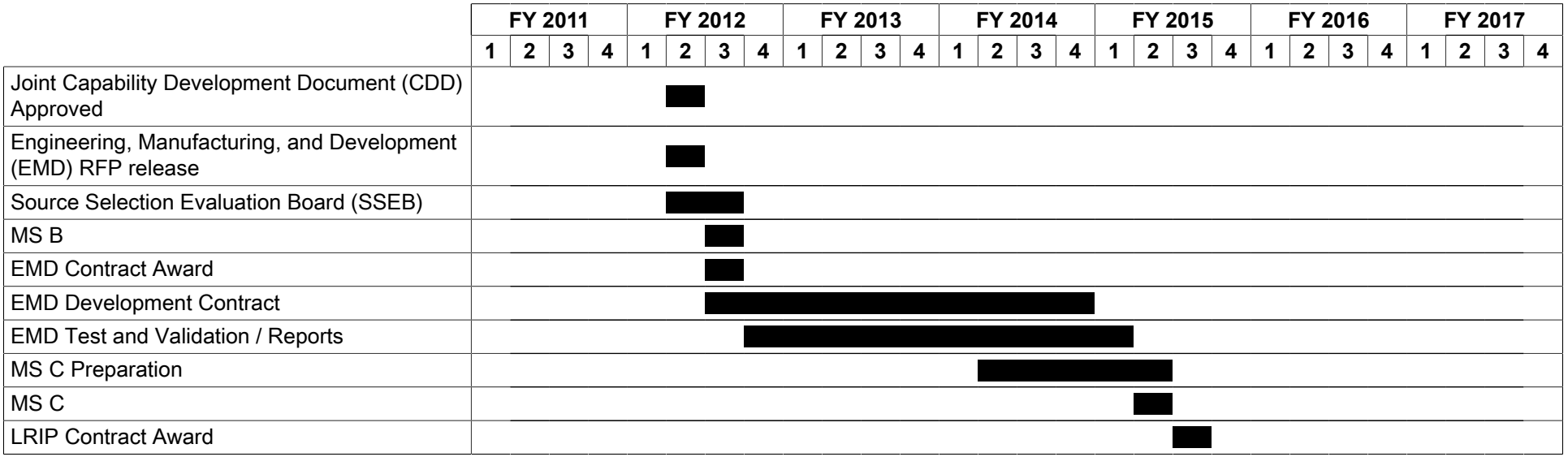

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	**PROJECT** L04: *JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Joint Capability Development Document (CDD) Approved	2	2012	2	2012
Engineering, Manufacturing, and Development (EMD) RFP release	2	2012	2	2012
Source Selection Evaluation Board (SSEB)	2	2012	3	2012
MS B	3	2012	3	2012
EMD Contract Award	3	2012	3	2012
EMD Development Contract	3	2012	4	2014
EMD Test and Validation / Reports	4	2012	1	2015
MS C Preparation	2	2014	2	2015
MS C	2	2015	2	2015
LRIP Contract Award	3	2015	3	2015

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT VR8: *COMBAT SERVICE SUPPORT SYSTEMS - AD*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
VR8: *COMBAT SERVICE SUPPORT SYSTEMS - AD*	-	2.074	2.023	-	2.023	2.223	2.039	2.375	2.415	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project supports development of critical soldier support and sustainment systems including shelter systems (rigid and soft wall), base camp subsystems, field service systems, mortuary affairs equipment, heaters, camouflage systems to counter emerging enemy threat technologies, and other combat service support equipment. These systems will fill identified theater distribution and services capability gaps, improve unit sustainability, and increase combat effectiveness. This project supports Advanced Component Development and Prototyping of Critical tactical support systems that support mobile Joint Service command and control, medical, and maintenance platforms. This project develops critical enablers that support the Quartermaster (QM) Force Transformation Strategy and The Army's Modular Capabilities by maintaining readiness through fielding and integrating new equipment. This project also ensures Army Expeditionary Forces are capable of rapid deployment and reduces sustainment requirements, related Combat Support/Combat Service Support (CS/CSS) demands in lift, combat zone footprint, and costs for logistical support.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Zero-Footprint Base Camp	-	0.984	0.751
Articles:		0	
Description: Zero-Footprint Base Camp reduces the operational energy and logistics footprint of the expeditionary base camp system, with the goal being a significant reduction in fuel, water, and power requirements to sustain operations in the field. Operating a base camp such as Force Provider requires a significant amount of logistics support and also produces an enormous amount of by products, both of which cost money, human effort (that means a risk in the form of soldiers on the road), and represents a potential vulnerability.			
FY 2012 Plans: Conduct Delopmental Testing and Operational Testing (DT/OT) on Zero-Footprint Base Camp capabilities for Joint base camp systems in support of the Office of Secretary of Defense (OSD) Joint Expeditionary Basing Work Group initiative			
FY 2013 Plans: Conduct evaluation of integrated technologies that are transitioning for the RDECOM 6.3 programs in a realistic operating environment at the Ft Devens Base Camp Systems Integration Laboratory (SIL). Efforts are focused on proving out subsystem maturity and the potential of these technologies before transitioning into System Development and Demonstration and putting them into operational use within the Army Force Provider base camps as a Pre-Planned Product Improvements (P3I). Focus will be on evaluating technologies that will improve upon the environmental and energy efficiency performance of the base camp.			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT VR8: *COMBAT SERVICE SUPPORT SYSTEMS - AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Specifically: 1) Evaluation of a variety of high performance insulating materials that are light-weight, durable, and cost effective; 2) Integration and evaluation of micro-grid / smart power / renewable energy solutions that can be incorporated into the standard Army Force Provider modules; and 3) Integration and evaluation of smart and energy efficient Environmental Control Units / Heaters that will compliment improved shelter efficiencies and significantly reduce the fuel demand on base camp operations.			
Title: Net-Zero Energy Efficiency Solutions ***Articles:*** ***Description:*** Net-Zero Energy Efficiency Solutions reduce the logistics footprint of the expeditionary base camp system, with the goal being a significant reduction in fuel, water, and power requirements to sustain operations in the field. Operating a base camp such as Force Provider requires a significant amount of logistics support and also produces an enormous amount of by products, both of which cost money, human effort (that means a risk in the form of soldiers on the road), and represents a potential vulnerability. ***FY 2012 Plans:*** Conduct evaluation on Net-Zero energy efficiency solutions for Force Provider ***FY 2013 Plans:*** Continue evaluation of Net-Zero energy efficiency solutions for Force Provider. In early FY 13 transition Energy Efficiency (E2) shelter kit solutions into System Development and Demonstration for Developmental Testing (DT).	-	0.490 0	1.050
Title: Modular Ballistic Protection System (MBPS) ***Articles:*** ***Description:*** MBPS is a lightweight, rapidly deployable and reusable ballistic protection system that can be installed in commonly used military shelters in expeditionary and remote base camps and outposts where more robust forms of ballistic protection (i.e. sandbags, concrete barriers) are not readily available or logistically feasible. ***FY 2012 Plans:*** Conduct Developmental Testing (DT) on internal TEMPER Modular Ballistic Protection System (MBPS). Prepare documentation to support Milestone B for stand-alone variant of MBPS. Obtain Milestone B and initiate development of stand-alone version. ***FY 2013 Plans:*** Complete development of stand-alone variant, conduct DT on stand-alone variant, and transition to System Development and Demonstration.	-	0.600 0	0.222
Accomplishments/Planned Programs Subtotals	-	2.074	2.023

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT VR8: *COMBAT SERVICE SUPPORT SYSTEMS - AD*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• RDT&E 643804.K39: *Field Sustainment Support AD*	18.237	2.998	2.970		2.970		3.571	3.107	3.159	Continuing	Continuing
• RDT&E 654804.L39: *Field Sustainment Support ED*	5.599	4.226	2.550		2.550		2.368	2.331	2.269	Continuing	Continuing
• RDT&E 654804.VR7: *Combat Service Support Systems*		2.544	1.745		1.745		1.708	1.883	1.915	Continuing	Continuing
• OPA M80200: *Force Provider*	93.782	68.000								0.000	161.782

D. Acquisition Strategy

Accelerate Base Camp efficiency and safety initiaives to incorporate in deployed camps and/or incorporate during reset of equipment.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT VR8: *COMBAT SERVICE SUPPORT SYSTEMS - AD*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Support	Various	PM Force Sustainment Systems:Natick, MA	-	0.203		0.199		-		0.199	Continuing	Continuing	0.000
		Subtotal	-	0.203		0.199		-		0.199			0.000

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Soldier Support Equipment	Various	Various:Various	-	0.939		0.920		-		0.920	Continuing	Continuing	0.000
		Subtotal	-	0.939		0.920		-		0.920			0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Soldier Support Equipment	Various	Various:Various	-	0.932		0.904		-		0.904	Continuing	Continuing	0.000
		Subtotal	-	0.932		0.904		-		0.904			0.000

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	2.074		2.023		-		2.023			0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	PROJECT VR8: *COMBAT SERVICE SUPPORT SYSTEMS - AD*

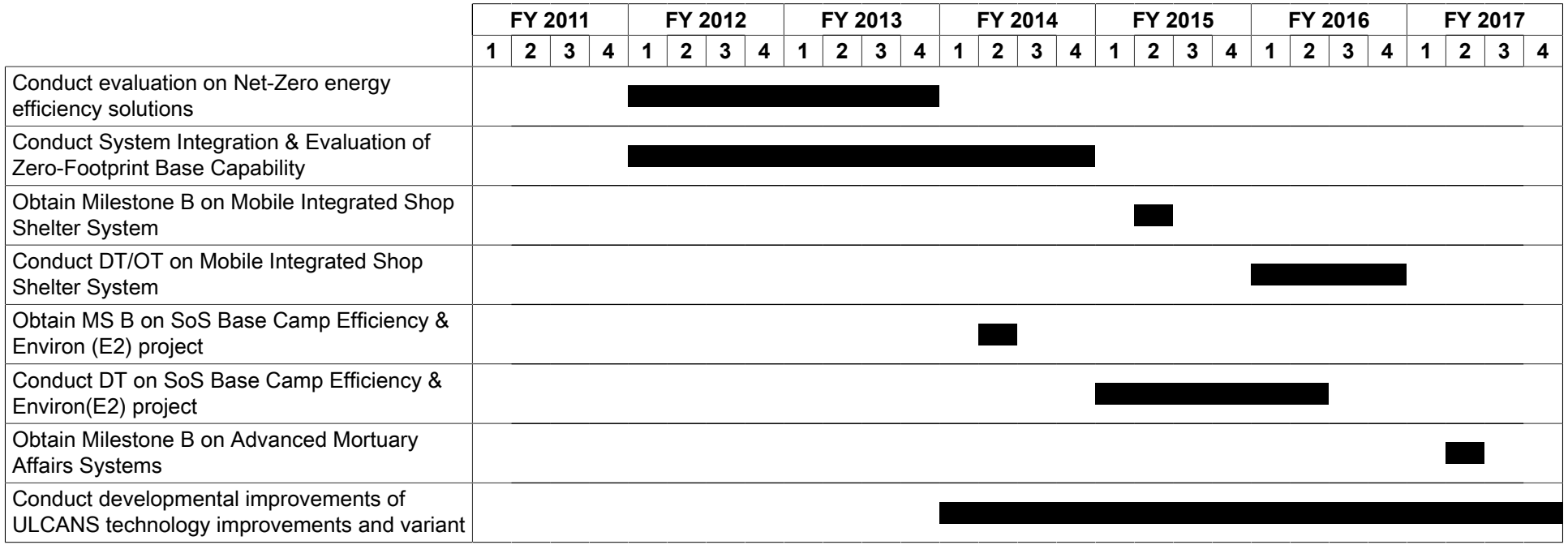

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*	**PROJECT** VR8: *COMBAT SERVICE SUPPORT SYSTEMS - AD*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Conduct evaluation on Net-Zero energy efficiency solutions	1	2012	4	2013
Conduct System Integration & Evaluation of Zero-Footprint Base Capability	1	2012	4	2014
Obtain Milestone B on Mobile Integrated Shop Shelter System	2	2015	2	2015
Conduct DT/OT on Mobile Integrated Shop Shelter System	1	2016	4	2016
Obtain MS B on SoS Base Camp Efficiency & Environ (E2) project	2	2014	2	2014
Conduct DT on SoS Base Camp Efficiency & Environ(E2) project	1	2015	2	2016
Obtain Milestone B on Advanced Mortuary Affairs Systems	2	2017	2	2017
Conduct developmental improvements of ULCANS technology improvements and variant	1	2014	4	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 ITEM NOMENCLATURE PE 0603805A: *Combat Service Support Control System Evaluation and Analysis*						
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	20.801	5.250	5.054	-	5.054	-	-	-	-	Continuing	Continuing
091: *CBT SVC SPT CONTRL SYS*	20.801	5.250	5.054	-	5.054	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Battle Command Sustainment Support System (BCS3) is the logistics Command and Control (C2) solution for U.S. land forces. BCS3 provides commanders the capability to execute end-to-end distribution and deployment management and brings better situational awareness resulting in better decision-making capability to warfighters. It enables warfighters to target, access, scale and tailor critical logistics information in near-real time. BCS3 provides more effective means to gather and integrate asset and in-transit information to manage distribution and deployment missions. BCS3 combines distribution management to include commodity and convoy tracking, and deployment management into a logistics Common Operating Picture (COP) for one mission-focused visual display.

BCS3 has been adopted and integrated into Joint and strategic logistics command and control processes. BCS3 is the only near-term end-to-end logistics COP solution for the Joint commander. BCS3 will maintain its core capabilities and continue to advance in development while integrating into the Joint command and control architecture. This continued development will enable decision superiority via advanced collaborative information sharing achieved through interoperability.

BCS3 has immediate, high pay-off benefit to warfighters and additional future growth in its capabilities. BCS3 is a force multiplier, a precision tool for logistics planning and execution that provides warfighters with the necessary tools to succeed.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	14.290	5.258	-	-	-
Current President's Budget	20.801	5.250	5.054	-	5.054
Total Adjustments	6.511	-0.008	5.054	-	5.054
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	6.900	-			
• SBIR/STTR Transfer	-0.203	-			
• Adjustments to Budget Years	-	-0.008	5.054	-	5.054
• Other Adjustments 1	-0.186	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603805A: *Combat Service Support Control System Evaluation and Analysis*	PROJECT 091: *CBT SVC SPT CONTRL SYS*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
091: *CBT SVC SPT CONTRL SYS*	20.801	5.250	5.054	-	5.054	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Battle Command Sustainment Support System (BCS3) is the logistics Command and Control (C2) solution for U.S. land forces. BCS3 Provides Integrated Battle Command Capabilities, training and support to the Joint Land Component Warfighter. As the Logistics C2 component of PM Mission Commands's (PM MC) products/ services enables warfighters to plan, execute and synchronize tactical and operational warfighting functions to include maneuver, fires, logistics, airspace management, and air defense. PM MC also procures a common hardware computing baseline used by a broad range of Army products. BCS3 provides commanders the capability to execute end-to-end distribution and deployment management and brings better situational awareness resulting in better decision-making capability to warfighters. It enables warfighters to target, access, scale and tailor critical logistics information in near-real time. BCS3 provides more effective means to gather and integrate asset and in-transit information to manage distribution and deployment missions. BCS3 combines distribution management to include commodity and convoy tracking, and deployment management into a logistics Common Operating Picture (COP) for one mission-focused visual display.

BCS3 has been adopted and integrated into Joint and strategic logistics (C2) processes. BCS3 is the only near-term end-to-end logistics COP solution for the Joint commander. BCS3 will maintain its core capabilities and continue to advance in development while integrating into the Joint (C2) architecture. This continued development will enable decision superiority via advanced collaborative information sharing achieved through interoperability.

BCS3 has immediate, high pay-off benefit to warfighters and additional future growth in its capabilities. BCS3 is a force multiplier, a precision tool for logistics planning and execution that provides warfighters with the necessary tools to succeed.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: Program Office Management	0.383	0.737	0.450	-	0.450
Articles:	0	0			
Description: Funding is provided for the following effort					
FY 2011 Accomplishments: Continues Program Management Support					
FY 2012 Plans: Continues program management support.					
FY 2013 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603805A: *Combat Service Support Control System Evaluation and Analysis*	PROJECT 091: *CBT SVC SPT CONTRL SYS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Continues program management support.					
Title: Mission Command (MC) Migration	10.982	3.713	3.904	-	3.904
Articles:	0	0			
Description: Funding is provided for the following effort ***FY 2011 Accomplishments:*** Continues the migration to MC programs ***FY 2012 Plans:*** Continues the migration of MC programs. ***FY 2013 Base Plans:*** Continues the migration of MC programs.					
Title: Systems Engineering and Test	2.536	0.800	0.700	-	0.700
Articles:	0	0			
Description: Funding is provided for the following effort ***FY 2011 Accomplishments:*** Continues System Engineering and Testing ***FY 2012 Plans:*** Continues System Engineering and Testing ***FY 2013 Base Plans:*** Continues System Engineering and Testing					
Title: JUONS CC-0445	6.900	-	-	-	-
Articles:	0				
Description: Funding has been provided through the FY11 Mid-year Omnibus. ***FY 2011 Accomplishments:*** Requirement requested by USFOR-A.					
Accomplishments/Planned Programs Subtotals	20.801	5.250	5.054	-	5.054

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603805A: *Combat Service Support Control System Evaluation and Analysis*	PROJECT 091: *CBT SVC SPT CONTRL SYS*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• SSN W34600: *Battle Command Sustainment Support System*	30.041	22.454	8.111	2.400	10.511					Continuing	Continuing

D. Acquisition Strategy

In accordance with the U.S. Army Training and Doctrine Command (TRADOC) requirements document approved in 2008, entitled Battle Command Essential Capability, software capability will be developed in 2-year increments as capability sets designed to Collaborate, Collapse and Converge Mission Command products. The product development funded under this R-Form is an integral part of the Army Mission Command System (AMCS), a system of systems, under a strategy designed to optimize opportunity for improved interoperability among the systems, to capture the benefits of competition where possible and to ensure the rapid integration of new capability into warfighter systems. This strategy is designed to reduce the physical footprint, logistics support requirements and increase operational efficiency.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603805A: *Combat Service Support Control System Evaluation and Analysis*	PROJECT 091: *CBT SVC SPT CONTRL SYS*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Office Management	TBD	PMO Support:APG, MD	29.293	0.737		0.450		-		0.450	Continuing	Continuing	Continuing
		Subtotal	29.293	0.737		0.450		-		0.450			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	TBD	Northrup Gruman:Carson, CA	166.871	-		-		-		-	0.000	166.871	0.000
Software Development	C/CPFF	IBM:Bethesda, MD	10.982	3.713		3.904		-		3.904	Continuing	Continuing	Continuing
JUONS CC-0445 Development	SS/CPFF	IBM:Bethesda, MD	6.900	-		-		-		-	0.000	6.900	0.000
		Subtotal	184.753	3.713		3.904		-		3.904			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Support	TBD	Technical Support:APG, MD	9.797	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	9.797	-		-		-		-			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering and Test	TBD	Northrop Grumman,:Carson, CA	5.083	-		-		-		-	Continuing	Continuing	Continuing
Systems Engineering and Test	C/CPFF	IBM:Bethesda, MD	-	0.800		0.700		-		0.700	0.000	1.500	0.000
		Subtotal	5.083	0.800		0.700		-		0.700			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603805A: *Combat Service Support Control System Evaluation and Analysis*	PROJECT 091: *CBT SVC SPT CONTRL SYS*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	228.926	5.250		5.054		-		5.054			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603805A: *Combat Service Support Control System Evaluation and Analysis*	**PROJECT** 091: *CBT SVC SPT CONTRL SYS*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PM Mission Command Capability Set 15-16 Software Development						[redacted]																						

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603805A: *Combat Service Support Control System Evaluation and Analysis*	**PROJECT** 091: *CBT SVC SPT CONTRL SYS*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
PM Mission Command Capability Set 15-16 Software Development	2	2012	4	2013

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	27.247	35.543	24.384	-	24.384	20.818	20.425	21.441	21.336	Continuing	Continuing
808: *DOD DRUG & VACC AD*	7.006	11.750	9.987	-	9.987	10.292	10.072	11.963	12.083	Continuing	Continuing
811: *MIL HIV VAC&DRUG DEV*	2.819	2.384	2.294	-	2.294	0.904	0.884	0.845	0.859	Continuing	Continuing
836: *Field Medical Systems Advanced Development*	17.422	19.769	11.638	-	11.638	9.060	9.012	8.227	8.279	Continuing	Continuing
VS7: *MEDEVAC MISSION EQUIPMENT PACKAGE (MEP) - ADV DEV*	-	1.640	0.465	-	0.465	0.562	0.457	0.406	0.115	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element (PE) funds development of medical materiel at the start of an official program of record, within the early system integration portion of the System Development and Demonstration phase of the acquisition life cycle using 6.4 funding. Program efforts support transition of promising Science and Technology candidate medical technologies (drugs, vaccines, medical devices, diagnostics, and mechanisms for detection and control of disease carrying insects) to larger scale testing in humans for safety and effectiveness. Programs are aligned to meet Future Force (F2) requirements stressed within concept documents and organizational structures. The PE provides funding for Food and Drug Administration (FDA) regulated human clinical trials to gain additional information about safety and effectiveness on the path to licensure for use in humans. The Projects supported by this PE are:

(PROJ 836) funds the demonstration and validation of medical products for enhanced combat casualty care and follow-on care, including rehabilitation. This project also funds the human clinical trials that test the safety and effectiveness of biologics, devices and demonstration. Clinical trials are conducted in accordance with U.S. Food and Drug Administration (FDA) regulations. Products from this project will transition to 832.

(PROJ 808) funds development of candidate medical countermeasures for infectious diseases of military relevance. Efforts include vaccines, drugs, diagnostic kits/ devices, and insect control measures. These funds support human clinical efficacy trials of the drug/vaccine in a larger group that are designed to assess performance and to continue safety assessments in a larger group of volunteers. Products from this project will transition to 849.

(PROJ 811) funds the development of military relevant human immunodeficiency virus (HIV) medical countermeasures. It provides funding for planning and conducting of human clinical trials in a group of healthy volunteers to assess the drug/vaccine for safety, tolerability, how the drug/vaccine is distributed, metabolized, and excreted from the body, and investigate the appropriate dose for therapeutic use. Products from this project will transition to Project 812.

(PROJ VS7) program upgrades, retrofits, trains, and sustains the 256 Medical Evacuation legacy helicopters that continue to play a major role in Iraq and Afghanistan. The force design will increase the number of air frames in the force from 12 to 15 aircraft for 37 MEDEVAC companies to better meet operation needs. Products from this project will transition to VS8.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603807A: *Medical Systems - Adv Dev*

This program is managed by U.S. Army Medical Materiel Development Activity (USAMMDA) and U.S. Army Medical Materiel Agency (USAMMA) of the US Army Medical Research and Materiel Command

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	28.132	34.997	23.291	-	23.291
Current President's Budget	27.247	35.543	24.384	-	24.384
Total Adjustments	-0.885	0.546	1.093	-	1.093
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.662	-			
• Adjustments to Budget Years	-	-	1.093	-	1.093
• Other Adjustments 1	-0.223	0.546	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 808: *DOD DRUG & VACC AD*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
808: *DOD DRUG & VACC AD*	7.006	11.750	9.987	-	9.987	10.292	10.072	11.963	12.083	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project funds development of candidate medical countermeasures for infectious diseases of military relevance. These efforts are in: vaccines, drugs, diagnostic kits/devices, and insect control measures. These funds support human clinical efficacy (capacity to produce a desired size of an effect under ideal or optimal conditions) trials of the drug/vaccine in larger groups that are designed to assess how well the drug/vaccine works, and to continue safety assessments in a larger group of volunteers. Funding supports both technical evaluations and human clinical testing to assure the safety and effectiveness of medical diagnostic kits and devices. This work, which is performed in military laboratories or civilian pharmaceutical firms, is directed toward the prevention of disease, early diagnosis, and speeding recovery once diagnosed. All clinical trials are conducted in accordance with U.S. Food and Drug Administration (FDA) regulations, a mandatory obligation for all military products placed into the hands of medical providers or service members. Product development priorities are determined based upon four major factors: (1) the extent and threat of the disease within the Combatant Commands theater of operations, (2) the clinical severity of the disease, (3) the technical maturity of the proposed solution, and (4) the affordability of the solution (development and production).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: DoD Drug and Vaccine Advanced Development	7.006	11.750	9.987
Articles:	0	0	

Description: Funding is provided for the following effort in the development of candidate medical countermeasures for military relevant infectious disease.

FY 2011 Accomplishments:

Prepared to accept transition of a new military topical insect repellent from project 810 at Milestone B into Engineering & Manufacturing Development phase. If candidate was ready, transitioned new malaria vaccine candidate from project 810 into Engineering & Manufacturing Development phase. For the Infectious Disease Diagnostic (multiple candidates), prepared to accept transition of project into the Engineering & Manufacturing Development phase of advanced development. The DTV vaccine continued FDA required vaccine potency and stability testing and all other DTV activities have transitioned to project 849. For Topical Antileishmanial Cream, continued a human treatment protocol in the US, the industry partner continued stability testing of the drug product, and project 849 supported the overseas human trials activities of the topical cream.

FY 2012 Plans:

Review evaluations, and human clinical trials of malarial/anti-malarial drugs, vaccines, diagnostics, insect repellents, and grouped infectious disease (Dengue [a severe debilitating disease caused by a virus and transmitted by a mosquito] and Leishmania [a skin-based disease caused by a parasite and transmitted by sand flies]) vaccines, drugs and diagnostics. Seeking industry

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 808: *DOD DRUG & VACC AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
partner and evaluating and completing down-selection of drug candidates for human trials for prevention or treatment of malaria. Continuing to evaluate the vaccine candidate for Dengue with industry partner Sanofi Pasteur. For Topical Antileishmanial Cream, continue a human treatment protocol in the US, the industry partner continues stability testing of the drug product, and project 849 supports the overseas human clinical trials activities of the topical cream. ***FY 2013 Plans:*** The New Standard Military Insect Repellant testing transitioned to advanced development in FY 2011, to be funded with Defense Health Program Budget Activity 7 funding as the potential candidates are all commercially available. Will review evaluations, and data from the Phase 2 safety/efficacy clinical trials completed in FY 2012 for the Topical Antileishmanial Cream; complete preparation for Phase 3 Pivotal clinical trials for Topical Antileishmanial Cream; continue site development efforts in Cambodia and begin a Phase 3 Pivotal clinical trial for Malaria Prophylaxis with commercial partner Glaxo-Smith Kline; finalize analysis and evaluation of Phase 2 efficacy and safety data for the vaccine candidate for Dengue with industry partner Sanofi Pasteur; transition JBAIDS assay planned to advanced development and begin developmental testing; complete final process validation for Leishmania Rapid Diagnostic Device (LRDD); complete FDA approval and transition to Project 849 for Antimalarial Drug, Artesunate Intravenous.			
Accomplishments/Planned Programs Subtotals	7.006	11.750	9.987

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Test and evaluate in-house and commercially developed products in extensive government-managed clinical trials to gather data required for FDA licensure and Environmental Protection Agency registration.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 808: *DOD DRUG & VACC AD*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $1M individually	Various	Not Applicable:Not applicable	12.062	1.250		1.919		-		1.919	Continuing	Continuing	Continuing
		Subtotal	12.062	1.250		1.919		-		1.919			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $1M individually	TBD	Not applicable:Not applicable	12.509	8.269		3.080		-		3.080	Continuing	Continuing	Continuing
Product Development of Malaria Prophylaxis	TBD	Walter Reed Army Institute of Research:Silver Spring, MD	-	-		3.000		-		3.000	0.000	3.000	0.000
		Subtotal	12.509	8.269		6.080		-		6.080			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $1M individually	Various	Not Applicable:Not applicable	6.385	1.431		1.388		-		1.388	Continuing	Continuing	Continuing
		Subtotal	6.385	1.431		1.388		-		1.388			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $1M individually	Various	Not applicable:Not applicable	43.318	0.800		0.600		-		0.600	Continuing	Continuing	Continuing
		Subtotal	43.318	0.800		0.600		-		0.600			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 808: *DOD DRUG & VACC AD*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	74.274	11.750		9.987		-		9.987			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 808: *DOD DRUG & VACC AD*

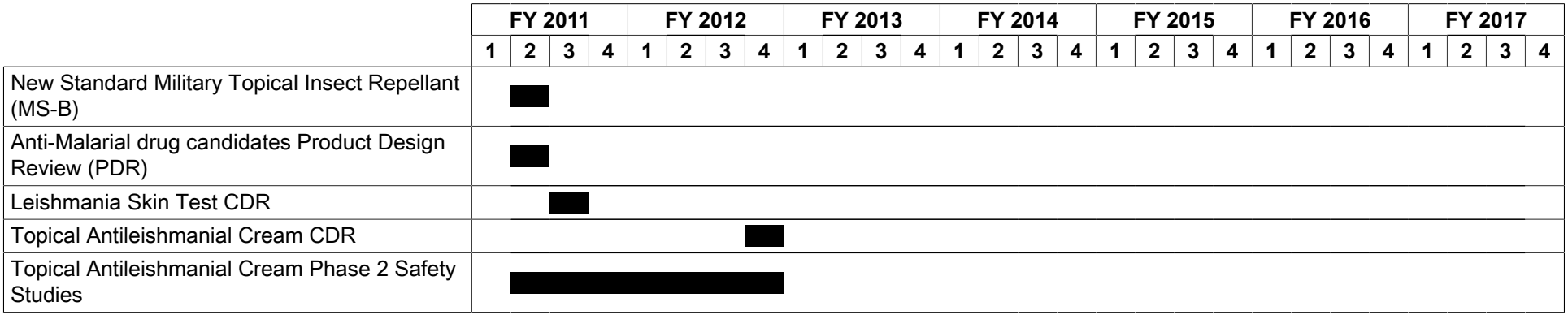

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603807A: *Medical Systems - Adv Dev*	**PROJECT** 808: *DOD DRUG & VACC AD*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
New Standard Military Topical Insect Repellant (MS-B)	2	2011	2	2011
Anti-Malarial drug candidates Product Design Review (PDR)	2	2011	2	2011
Leishmania Skin Test CDR	3	2011	3	2011
Topical Antileishmanial Cream CDR	4	2012	4	2012
Topical Antileishmanial Cream Phase 2 Safety Studies	2	2011	4	2012

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 811: *MIL HIV VAC&DRUG DEV*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
811: *MIL HIV VAC&DRUG DEV*	2.819	2.384	2.294	-	2.294	0.904	0.884	0.845	0.859	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project funds development of militarily relevant human immunodeficiency virus (HIV) medical countermeasures. It provides funding for the planning and conducting of human clinical trials in a group of healthy volunteers to assess the drug/vaccine for safety, tolerability, how the drug/vaccine is distributed, metabolized, and excreted from the body, and to investigate the appropriate dose for therapeutic use. Development efforts are focused on militarily unique needs effecting manning, mobilization, and deployment.

The major contractor is Henry M. Jackson Foundation for the Advancement of Military Medicine, Rockville, MD. Research efforts are coordinated with the National Institutes of Health.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Military HIV Vaccine & Drug Development	2.819	2.384	2.294
Articles:	0	0	
Description: This project funds advanced development research to develop candidate HIV vaccines, assess their safety and effectiveness in evaluations with human subjects, and protect military personnel from risks associated with HIV infection.			
FY 2011 Accomplishments: Sought new industry partnership for selected candidate(s) drug/vaccine for HIV medical treatment/prevention.			
FY 2012 Plans: Perform three inter-related studies to enhance our understanding of precisely how the vaccine strategy used in the 2009 safety/ efficacy trial caused vaccine recipients to be protected from infection, including intense laboratory studies using samples from the trial, and commencement of two small clinical vaccine trials to generate data and samples to define what vaccine responses to try to generate for next increment studies.			
FY 2013 Plans: Will complete three inter-related previous clinical trials aimed at refining our understanding of immune responses elicited by the increment 1 HIV vaccine strategy. Analyze laboratory interrogation of samples from trial participants.			
Accomplishments/Planned Programs Subtotals	2.819	2.384	2.294

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 811: *MIL HIV VAC&DRUG DEV*

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Test and evaluate commercially developed drug/vaccine candidates in government-managed trials.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 811: *MIL HIV VAC&DRUG DEV*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $1M individually.	TBD	Not Applicable:Not Applicable	1.135	0.473		0.456		-		0.456	Continuing	Continuing	Continuing
		Subtotal	1.135	0.473		0.456		-		0.456			

Remarks

Not Applicable

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $1M individually	TBD	Not applicable:Not applicable	2.258	0.360		0.574		-		0.574	Continuing	Continuing	Continuing
		Subtotal	2.258	0.360		0.574		-		0.574			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $1 Million individually	TBD	TBD:TBD	0.493	0.444		0.534		-		0.534	0.000	1.471	0.000
		Subtotal	0.493	0.444		0.534		-		0.534	0.000	1.471	0.000

Remarks

Not Applicable

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 811: *MIL HIV VAC&DRUG DEV*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $1M individually	TBD	Not applicable:Not Applicable	14.012	1.107		0.730		-		0.730	0.000	15.849	0.000
		Subtotal	14.012	1.107		0.730		-		0.730	0.000	15.849	0.000

Remarks

Not Applicable

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	17.898	2.384		2.294		-		2.294			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603807A: *Medical Systems - Adv Dev*	**PROJECT** 811: *MIL HIV VAC&DRUG DEV*

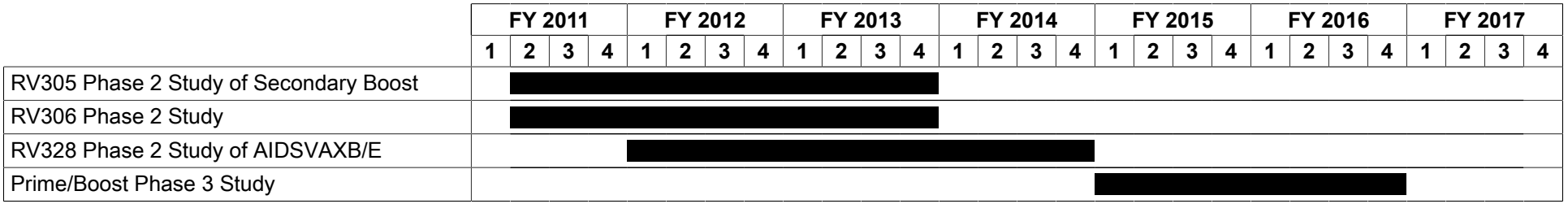

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603807A: *Medical Systems - Adv Dev*	**PROJECT** 811: *MIL HIV VAC&DRUG DEV*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
RV305 Phase 2 Study of Secondary Boost	2	2011	4	2013
RV306 Phase 2 Study	2	2011	4	2013
RV328 Phase 2 Study of AIDSVAXB/E	1	2012	4	2014
Prime/Boost Phase 3 Study	1	2015	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 836: *Field Medical Systems Advanced Development*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
836: *Field Medical Systems Advanced Development*	17.422	19.769	11.638	-	11.638	9.060	9.012	8.227	8.279	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Not applicable for this PE.

A. Mission Description and Budget Item Justification

This project funds the demonstration and validation of medical products for enhanced combat casualty care and follow-on care, including rehabilitation. This project funds human clinical trials to test the safety and effectiveness of biologics (products derived from living organisms) and devices necessary to meet medical requirements. When available, commercial-off-the-shelf (COTS) medical products are also tested and evaluated for transition to system development and demonstration. Consideration is also given to reducing the medical logistics footprint through smaller weight, volume, and equipment independence from supporting materials. All clinical trials are conducted in accordance with U.S. Food and Drug Administration (FDA) regulations.

Major contractors/intra-governmental agencies include: IGR Enterprises, Inc.; Army Medical Department Board Test Center; SeQual Technologies, Inc.; Ultrasonic Diagnostics, Inc.; HemCon Medical Technologies, Inc.; Hemerus Medical, LLC.; Fast Track Drugs & Biologics, LLC; Clinical Research Management, and Walter Reed Army Institute of Research (WRAIR) and Institute of Surgical Research (ISR) for user evaluation. Other military agencies include Program Executive Office (PEO) Soldier, PEO Combat Service Support, and Naval Undersea Warfare Center.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Field Medical Systems Advanced Development	17.422	-	-
Articles:	0		
Description: Funding is provided for demonstration and validation of medical products for enhanced casualty care and follow-on care, including rehabilitiation.			
FY 2011 Accomplishments: Total Intravenous Anesthesia (TIVA): Performed clinical trials and submitted required documents for FDA clearance/approval. Auto Critical Care System (ACCLS): Conducted validation testing and Army DT/OT/AWC. Submitted the 510K for FDA review for modified devices. Urinary Facilitation Device: Tested, reported, and reviewed for FDA approval. PEAK Surgical System (Plasma Blade): preclinical results were favorable, conducted environmental testing and identified any needed design modifications to produce a fieldable unit. Pursued additional regulatory approvals as needed. Plasma Knife: preclinical results were favorable, conducted environmental testing and identified design modifications to produce a fieldable unit. Pursued additional regulatory approvals as needed. Hydrosurgery System: Conducted operational and environmental testing. Remote Diagnostic Access (RDA): Developed software, conduct testing, and refinement for MOC Sensor Modual Development phase. Treatment Table for			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 836: *Field Medical Systems Advanced Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
PM, HBCT Medical Mission Package for Treatment Variants: Tansitioned to Project 832. Refrigerator for PM, HBCT for Medical Mission Package for Treatment Variant: Transitioned to Project 832. Shock and Vibration Isolation System for Patient Litters in Ground and Air Medical Evacuation Vehicles: Transitioned to Project 832. Shelter for PM, HBCT for Medical Mission Package for Treatment Variant: Transitioned to Project 832. Passive Cold Chain Capability for Temperature Sensitive Medical Materiel: Transitioned to Project 832. The intranasal ketamine drug effects study transitioned to project 832 for Systems Development and Demonstration.			
Title: Field Medical Systems Advanced Development - PM Medical Devices ***Articles:*** ***Description:*** Advanced development funding is provided for the following development of medical devices in support of enhanced combat casualty care. ***FY 2012 Plans:*** Non-invasive Multi-Analyte Monitor: submit RFP for the use of Infra Red Spectrometry to assess analyte concentration in blood. Hydration Meter: Conduct validation testing. Plasma Knife: Transition product to Project 832. Eye Tracking System for assessing concussions is a traumatic brain injury diagnostic tool that begins clinical trial to move to FDA submission. Fibrinogen Bandages will use an antimicrobial irrigation solution to protect blast injury wound sites from bacterial infection. Conduct final review of Good Manufacturing Practice (GMP) for movement forward to FDA submission. Cardiopulmonary Enhancement: Conduct multiple collaborative clinical protocols to review arrest and life threatening trauma devices for enhanced treatment. ***FY 2013 Plans:*** Total Intravenus Anesthesia (TIVA): This product will transition to Tech Watch in FY 2012 and is not scheduled for further development in FY 2013. Auto Critical Care System (ACCLS): Program is cancelled as it is no longer a viable product. Urinary Facilitation Device: No further R&D funding required as this is now a commercial product. PEAK Plasmablade: No further R&D funding required as this is now a commercial product. Hydrosurgery System: No further R&D funding required as this is now a commercial product. Non-invasive Multi-Analyte Monitor: submission cancelled because the Small Business innovation Research (SBIR) Product failed to meet future need/requirement. Eye Tracking System for Assessing Concussions (system is a traumatic brain injury diagnostic tool): IPT for Smooth Pursuit Eye Tracking will rebaseline plan in January 2012 for next steps to reach MSB in FY 2013-FY 2014. Fibrinogen Bandages: Phase I clinical trial is scheduled to begin in FY 2013. No further funding is planned after current contract. Product is a biologic and is transitioning back to S&T. Cardiopulmonary Enhancement: Currently there is no device requirement identified. Bandits Banyan Biomarkers (now called TBI Diagnostic Assay System _ Increment II and Increment III Handheld): Enrollment for clinical trials continues and will identify a handheld platform for independent testing in June 2012. Will schedule Milestone B review.	-	7.428 0	6.480
Title: Field Medical Systems Advanced Development - PM Pharmaceuticals	-	8.063	2.486

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 836: *Field Medical Systems Advanced Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Articles:		0	
Description: Funding is provided for advanced development of biologic medical products managed by PM Pharmaceuticals. ***FY 2012 Plans:*** Cryopreserved Platelets formerly Platelet Derived Hemostatic Agent (use of cryopreserved platelets for control of severe bleeding): Conduct clinical safety evaluations and conduct good manufacturing practices preliminary validation studies of the product. The Freeze-Dried Plasma Program (hemorrhage treatment candidate): Conduct preliminary clinical evaluations and conduct good manufacturing practices preliminary validation studies. ***FY 2013 Plans:*** Blood Pathogen Reduction/Inactivation transitioned to advanced development in FY 2012, transitioning from Army to be funded with Defense Health Program RDT&E funding; transitioned to Freeze-dried Plasma program to maintain current schedule and avoid delays Conduct Milestone B decision reviews for both Cryopreserved Platelets and Freeze-Dried Plasma Programs (New high priority from DoD leadership). Accelerated fielding of a FDA-approved Freeze-Dried Plasma was validated in the June 2011 Army Surgeon General's Report by the Blast Injury Task Force. Cryopreserved Platelets: Start Phase 2 safety/efficacy clinical trial in cancer patients with platelet deficiency. Freeze-Dried Plasma program: Complete Phase 2 clinical trial of safety and efficacy through a Cooperative Agreement with industry partner.			
Title: Field Medical systems Advanced Development - PM Integrated Clinical Systems (ICS)	-	0.888	-
Articles:		0	
Description: Funding is provided for the following effort for medical products managed by PM ICS. ***FY 2012 Plans:*** Conduct final testing of Phase IV of the Remote Diagnostic Access (RDA). Develop a universal security compliant access portal to serve as a standardized compliance wrapper for all vendors, medical technology, and even IT management products that may traverse between the .com and .mil networks. The Milestone Decision Authority (MDA) is scheduled to review the RDA project in 2011 for continuation of development or termination due to commercial availability.			
Title: Field Medical Systems Advanced Development - PM Medical Support Systems	-	3.390	2.672
Articles:		0	
Description: Funding is provided for the following effort in the development of products that support the medical mission in combat casualty care and health care operations. ***FY 2012 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 836: *Field Medical Systems Advanced Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Prepare and complete testing of the Treatment Table and Blood Refrigerator prototypes for PM HBCT. Shock and Vibration Litter Isolation project terminated by MDA. Test new cold chain technologies for MES set inclusion. Prototype evaluation of Quad fold litter, litter straps, and hands-free litter system: Test new ISO shelter panel and transition back into ISO shelter specification for future shelter buys. Test Trauma Tiered Medical Bag and transition to PEO soldier. Continue to finalize soft-walled shelter development for Force Provider modules for use in Combat Support Hospitals. Develop and transition prototype Water and Waste Water Management system to Project 832 for further development. ***FY 2013 Plans:*** Will transition treatment table and blood refrigerator for PM HBCT to Project 832 and continue development. Will transition advanced cold chain technologies, trauma tiered medical bag, hoist aeromedical evacuation litter, and quad fold litter to Project 832 and continue development. Will transition ISO panel development and Force Provider soft walled module components to 832 to finalize development. Will develop prototype for Environmental Sentinel Biomonitor, which transitioned from Science &Technology. Will apply funding from Milestone Decision Authority terminated project Shock and Vibration Litter System to a SBIR Phase II product, insecticide impregnated bed net, and acquire data for EPA approval. Will collaborate with PEO Combat Service Support on development efforts for emerging medical vehicle evacuation variants.			
Accomplishments/Planned Programs Subtotals	17.422	19.769	11.638

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Develop in-house or industrial prototypes in government-managed programs to meet military and regulatory requirements for production and fielding.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 836: *Field Medical Systems Advanced Development*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $M individually.	Various	Not Applicable:Not applicable	37.279	2.540		0.622		-		0.622	Continuing	Continuing	Continuing
		Subtotal	37.279	2.540		0.622		-		0.622			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	TBD	Clinical Research Management:Hinckley, Ohio	1.133	-		-		-		-	Continuing	Continuing	Continuing
Product Development	TBD	Allied Technologies & Consulting LLC:Frederick, MD	6.945	-		-		-		-	Continuing	Continuing	Continuing
Product Development	TBD	Banyan BioMarkers, Inc:Alachua FL	27.000	-		5.050		-		5.050	Continuing	Continuing	Continuing
Product Development	TBD	HemCon Medical Technologies:Tigard, Oregon	1.520	8.000		-		-		-	Continuing	Continuing	Continuing
Development of Platelet Derived Hemostatic agent	TBD	Fast Track Drugs & Biologics:Frederick, MD	-	1.500		-		-		-	Continuing	Continuing	Continuing
Product Development	TBD	Aquila Alaska Corporation:Aquila Alaska	1.200	-		-		-		-	Continuing	Continuing	Continuing
Product Development	TBD	ALL Product:Various	1.000	1.000		-		-		-	Continuing	Continuing	Continuing
Product Development of Freeze-dried plasma	TBD	TBD:TBD	-	-		2.400		-		2.400	Continuing	Continuing	Continuing
Product Development	TBD	Not Applicable:Not Applicable	26.067	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	64.865	10.500		7.450		-		7.450			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 836: *Field Medical Systems Advanced Development*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $M individually.	Various	Not Applicable:Not applicable	41.747	1.273		1.066		-		1.066	Continuing	Continuing	Continuing
		Subtotal	41.747	1.273		1.066		-		1.066			

Remarks

No product/contract costs greater than $1M individually.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $1 Million individually.	C/UCA	Not applicable:Not applicable	28.778	5.456		2.500		-		2.500	Continuing	Continuing	Continuing
		Subtotal	28.778	5.456		2.500		-		2.500			

Remarks

No product/contract costs greater than $1M individually.

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	172.669	19.769		11.638		-		11.638			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT 836: *Field Medical Systems Advanced Development*

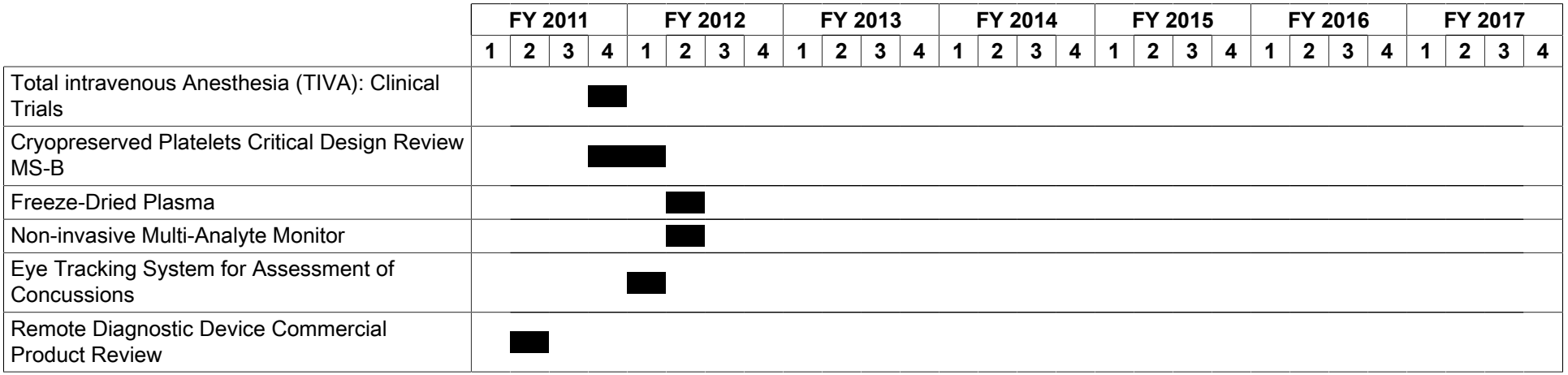

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603807A: *Medical Systems - Adv Dev*	**PROJECT** 836: *Field Medical Systems Advanced Development*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Total intravenous Anesthesia (TIVA): Clinical Trials	4	2011	4	2011
Cryopreserved Platelets Critical Design Review MS-B	4	2011	1	2012
Freeze-Dried Plasma	2	2012	2	2012
Non-invasive Multi-Analyte Monitor	2	2012	2	2012
Eye Tracking System for Assessment of Concussions	1	2012	1	2012
Remote Diagnostic Device Commercial Product Review	2	2011	2	2011

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT VS7: *MEDEVAC MISSION EQUIPMENT PACKAGE (MEP) - ADV DEV*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
VS7: *MEDEVAC MISSION EQUIPMENT PACKAGE (MEP) - ADV DEV*	-	1.640	0.465	-	0.465	0.562	0.457	0.406	0.115	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Original models of Army Black Hawk MEDEVAC helicopters continue to play a major role in maintaining high US troop survival rates in Iraq and Afghanistan by evacuating wounded troops in less than one-hour. In 2009 a VCSA-approved force design update increased the number of air frames in the force from 12 to 15 aircraft for 37 MEDEVAC companies to better meet operational needs. In 2010, the AMEDD accepted life-cycle management of the MEDEVAC MEP from PEO Aviation. In order to achieve required operational capability and enhance commonality across the MEDEVAC fleet, the MEDEVAC MEP program upgrades, retrofits, trains, and sustains the 256 MEDEVAC legacy helicopters to achieve the medical capability provided by the HH-60M, which is factory built for the MEDEVAC mission.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: MEDEVAC Mission Sensor Foward Looking Infrared (FLIR) ***Articles:*** ***Description:*** Funding is provided for the following effort in the advanced development of critical components in MEDEVAC MEP. ***FY 2012 Plans:*** MEDEVAC Mission Sensor (MMS) FLIR for UH-60 aircraft. One of the requirements for the UH-60A/L MEDEVAC is a sensor system that will assist the pilots in locating patient pick-up points and assist them in maintaining situational awareness in night and adverse weather conditions. The MMS is currently being qualified for use on the HH-60M aircraft. This system will be installed on UH-60 aircraft using the proven Sponson-Mount FLIR system, which is currently being used in OEF for the MEDEVAC mission. The funds will develop and test a Medical Mission Sensor FLIR prototype on the UH-60A/L.	-	0.575 0	-
Title: Environmental Control System for MEDEVAC aircraft ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2012 Plans:*** The HH-60A/L/M has an environmental control system to assist in regulating the cabin temperature. This system will help prevent injury and loss of life to patients due to heat stress or hypothermia during transport. The system will also provide improved crew	-	0.509 0	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT VS7: *MEDEVAC MISSION EQUIPMENT PACKAGE (MEP) - ADV DEV*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
comfort in extreme environmental conditions, particularly high temperatures. The system will utilize the component-qualified 2-Pallet ECS developed for the HH-60M and develop and test a prototype installation for the UH-60A/L.			
Title: Telemedicine for MEDEVAC aircraft ***Articles:*** ***Description:*** Effort is focused on requirement to provide enroute patient data to treatment facilities. ***FY 2012 Plans:*** Telemedicine is an ongoing requirement for US Army MEDEVAC, to allow the patient care-giver at point of injury or during transport to access the knowledge and expertise of a more qualified care-giver at a remote location, and to provide patient data to the receiving facility prior to patient arrival, allowing the facility more time to prepare for intensive care patients. The program develops, installs, and tests a telemedicine system for the UH-60A/L family of aircraft. ***FY 2013 Plans:*** Will continue design, develop, and test telemedicine systems in order to provide medics with state of the art capability to monitor and communicate patient data to ground crews at forward treatment facility	- 	0.556 0	0.465
Accomplishments/Planned Programs Subtotals	-	1.640	0.465

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Develop in-house or industrial prototypes in government-managed programs to meet military MEDEVAC and regulatory requirements for production and fielding.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT VS7: *MEDEVAC MISSION EQUIPMENT PACKAGE (MEP) - ADV DEV*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $1 Million individually	TBD	APM MEDEVAC:Huntsville, AL	-	0.201		0.037		-		0.037	0.000	0.238	0.000
		Subtotal	-	0.201		0.037		-		0.037	0.000	0.238	0.000

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $1Million individually	TBD	APM MEDEVAC PEO Aviation:Huntsville AL	-	1.140		0.428		-		0.428	0.000	1.568	0.000
		Subtotal	-	1.140		0.428		-		0.428	0.000	1.568	0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater thatn $1Million individually	TBD	APM MEDEVAC:Huntsville, AL	-	0.100		-		-		-	0.000	0.100	0.000
		Subtotal	-	0.100		-		-		-	0.000	0.100	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than $1Million individually	MIPR	APM MEDEVAC PEO Aviation:Huntsville, AL	-	0.199		-		-		-	0.000	0.199	0.000
		Subtotal	-	0.199		-		-		-	0.000	0.199	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT VS7: *MEDEVAC MISSION EQUIPMENT PACKAGE (MEP) - ADV DEV*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	1.640		0.465		-		0.465	0.000	2.105	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603807A: *Medical Systems - Adv Dev*	PROJECT VS7: *MEDEVAC MISSION EQUIPMENT PACKAGE (MEP) - ADV DEV*

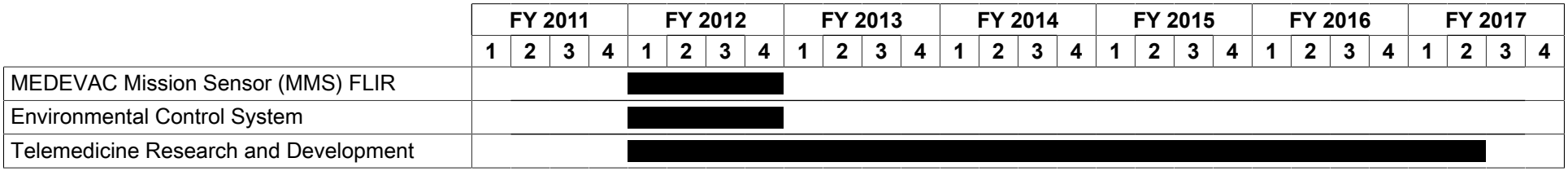

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603807A: *Medical Systems - Adv Dev*	**PROJECT** VS7: *MEDEVAC MISSION EQUIPMENT PACKAGE (MEP) - ADV DEV*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
MEDEVAC Mission Sensor (MMS) FLIR	1	2012	4	2012
Environmental Control System	1	2012	4	2012
Telemedicine Research and Development	1	2012	2	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	51.415	18.030	32.050	-	32.050	27.115	27.001	16.118	20.759	Continuing	Continuing
S49: *GROUND SOLDIER SYSTEM (GSS)*	34.819	0.020	-	-	-	-	-	-	-	Continuing	Continuing
S51: *AIRCREW INTEGRATED SYS AD*	0.156	0.136	0.141	-	0.141	0.164	0.164	0.157	0.160	Continuing	Continuing
S52: *SOLDIER SUPPORT EQUIPMENT - AD*	4.700	6.202	5.046	-	5.046	2.714	1.770	1.113	-	Continuing	Continuing
S53: *CLOTHING AND EQUIPMENT*	6.935	5.220	7.189	-	7.189	7.222	6.944	5.144	5.143	Continuing	Continuing
S54: *SMALL ARMS IMPROVEMENT*	4.805	4.577	4.690	-	4.690	5.432	5.469	5.100	5.186	Continuing	Continuing
VS4: *SOLDIER PROTECTIVE EQUIPMENT*	-	1.875	14.984	-	14.984	11.583	12.654	4.604	10.270	Continuing	Continuing

Note

Change Summary Explanation:

Fiscal Year 2011: Program increase of $4.700M to Project S52 for Explosive Ordinance Disposal Robotic and Dismounted Equipment.

Fiscal Year 2012: Congressional Reduction of $1.846M to Project S53 for Project S53 transfer to Project VS4.

Fiscal Year 2013: Program Increase of $13.100 Million to Project VS4 for Soldier Protective Equipment portfolio efforts and program increase of $0.500 Million to Project S52 for the Gunshot Detection System (GDS) effort.

A. Mission Description and Budget Item Justification

This Program Element (PE) for Advanced Component Development and Prototypes manages the Soldier as a system in order to increase combat effectiveness, test and deliver tangible products that save Soldier's lives, and improve Soldier's quality of life. It evaluates, develops, and tests emerging technologies and critical Soldier support systems to reduce technology risk.

Project S49 funding (Ground Soldier System) integrates multiple components and leverages emerging technologies to provide overmatching operational capabilities to ground combat Soldiers.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603827A: *Soldier Systems - Advanced Development*

Project S51 funding (Aircrew Integrated Systems) supports component development and prototyping of critical Soldier support systems and other combat service support equipment that will improve unit sustainability and combat effectiveness.

Project S52 funding (Soldier Support Equipment) supports system development and testing for the Gunshot Detection (GSD) Program of Record commencing in FY 2012. The GSD will provide passive detection, computer based signal processing, aural and visual indication to help troops locate a hostile shooter.

Project S53 funding (Clothing and Equipment) supports development of state-of-the-art technology to improve tactical and non-tactical clothing and individual equipment to enhance the lethality, survivability, and mobility of the individual Soldier.

Project S54 funding (Small Arms Improvement) provides funds to develop, demonstrate and evaluate emerging technology for integration of systems, subcomponents and prototypes designed to enhance lethality, target acquisition, fire control, training effectiveness and reliability for current and future small arms weapon systems and ammunition.

Project S55 funding (Counter-Defilade Target Engagement) provides funds to develop, demonstrate and evaluate technology for integration of systems and subcomponents to enhance hit probability to defeat defilade and point area targets at the squad level.

Project VS4 funding (Soldier Protective Equipment) supports efforts to evaluate integrated technologies and representative or prototype systems that help expedite Individual Soldier Ballistic Protection technology transition from the laboratory to operational use.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	48.323	19.598	18.368	-	18.368
Current President's Budget	51.415	18.030	32.050	-	32.050
Total Adjustments	3.092	-1.568	13.682	-	13.682
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.232	-			
• Adjustments to Budget Years	-0.376	0.278	13.682	-	13.682
• Other Adjustments 1	4.700	-	-	-	-
• Other Adjustments 2	-	-1.846	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S49: *GROUND SOLDIER SYSTEM (GSS)*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
S49: *GROUND SOLDIER SYSTEM (GSS)*	34.819	0.020	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

The Nett Warrior (NW) program [named in honor of Medal of Honor recipient COL Robert Nett], previously known as Ground Soldier System (GSS) program, leverages commercial smart devices and secure Army tactical radios to provide an integrated dismounted leader Mission Command (MC) and Situational Awareness (SA) system for use during combat operations. The system provides unparalleled situational awareness and understanding to the dismounted leader allowing for faster and more accurate decisions in the tactical fight. This translates into Soldiers being at the right place, at the right time, with the right information making them more effective, more lethal, and more survivable in the execution of their combat mission. The NW program focuses on the integration and evaluation of commercial smart devices for the MC/SA system, improved navigation, and reduced fratricide through the visualization of friendly forces. The development and integration process employs combat veteran for Soldier integration and feedback enhancing the human factors and fightability. NW also develops supporting power systems aimed at achieving NET ZERO power balance in the expeditionary environment.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Ground Soldier System (GSS).	33.975	0.020	-
Articles:	0	0	
Description: Developmental Engineering, Prototyping, Systems Engineering and Program Management Support.			
FY 2011 Accomplishments: Continued developmental engineering and system analysis with three competing contractors on 180 Nett Warrior (NW) prototypes. Conducted test result analysis on results of FY10-11 Limited User Test (LUT) and implemented improvements to designs on 51 prototypes for contractor verification systems testing. Executed training and support of 47 deployable prototype power recharging and fuel cell devices based on output of LUT excursions. Developed smart device technology prototypes for experimentation at Network Integration Experiments at Ft. Bliss, TX. Conducted systems engineering, and program management support for Nett Warrior (NW).			
FY 2012 Plans: Provide program oversight for transition to Budget Activity (BA) 5.			
Title: Governmental Test and Evaluation (T&E) Activities	0.844	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S49: *GROUND SOLDIER SYSTEM (GSS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Articles:	0		
Description: Funding is provided for the following effort ***FY 2011 Accomplishments:*** Completed final reports and documentation from FY10-11 Nett Warrior Limited User Testing and Power Excursion.			
Accomplishments/Planned Programs Subtotals	34.819	0.020	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPA 3: *OPA 3 Ground Soldier System*	1.685	63.500	103.317		103.317		200.855	203.547	225.251	Continuing	Continuing
• RDT&E, PE 0604827A S75: *RDT&E, PE 0604827A S75 - Ground Soldier Ensemble*		38.547	46.797		46.797		15.716	16.976	18.402	Continuing	Continuing

D. Acquisition Strategy

The Nett Warrior (NW) program provides unparalleled situational awareness and battle command to dismounted combat leaders through commercial smart device technologies and secure tatical radios. The NW program executed a MS A in FY09 and began three competing TD phase contracts leading to developmental and operational testing FY10-11. The technology development contracts have been completed. The NW MS C is executed in 2QFY12 followed by a low rate Capability Set (CS) 14 production award. The RDT&E and Production dollars in FY12-13 pay for Developmental Test and Evaluation planned for 4QFY12-1QFY13, followed by 1QFY13 Initial Operational Test & Evaluation (IOT&E) as well as hardware, software, integration and program management. The Developmental and Operational tests are validation of the system utility, supportability, and austere-environment power production and regeneration strategy-leading to the full 10 BCT set CS14 in the 2QFY13. NW also continues to reduce size, weight and power through a semi-annual integration and evaluation and test of commercial smart device technologies which evolve continuously. The development and integration process employs combat veteran for Soldier integration and feedback enhancing the human factors and fightability. NW also develops supporting power systems aimed at achieving NET ZERO power balance in the expeditionary environment.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S49: *GROUND SOLDIER SYSTEM (GSS)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM Soldier Warrior software integration of NW program	MIPR	Various:Various	16.707	-		-		-		-	0.000	16.707	0.000
PM Soldier Warrior oversight of NW program	Various	Various:Various	24.986	0.020		-		-		-	0.000	25.006	0.000
		Subtotal	41.693	0.020		-		-		-	0.000	41.713	0.000

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Develop, Integrate and Prototype NW Increment I	C/CPFF	Raytheon Company:McKinney, TX 75071-2813	13.900	-		-		-		-	0.000	13.900	0.000
Develop, Integrate and Prototype NW Increment I	C/CPFF	General Dynamics C4 Systems, Inc.:Scottsdale, AZ 85257-3812	12.659	-		-		-		-	0.000	12.659	0.000
Develop, Integrate and Prototype NW Increment I	C/CPFF	Rockwell Collins, Inc.:Cedar Rapids, IA 52498-0505	13.354	-		-		-		-	0.000	13.354	0.000
		Subtotal	39.913	-		-		-		-	0.000	39.913	0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM Nett Warrior support	MIPR	CERDEC, CECOM, TACOM, ARL, NSRDEC, etc.:Various	2.522	-		-		-		-	0.000	2.522	0.000
PM Nett Warrior support	MIPR	Engility, NCI, NSA, etc.:Various	14.649	-		-		-		-	0.000	14.649	0.000
		Subtotal	17.171	-		-		-		-	0.000	17.171	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S49: *GROUND SOLDIER SYSTEM (GSS)*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Various Testing Organizations	MIPR	ATEC, TTC/YPG/ DTC/EPT/ARL/SLAD, etc.:Various	13.255	-		-		-		-	0.000	13.255	0.000
		Subtotal	13.255	-		-		-		-	0.000	13.255	0.000

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	112.032	0.020		-		-		-	0.000	112.052	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S49: *GROUND SOLDIER SYSTEM (GSS)*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Army Configuration Steering Board (CSB)				■																								

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S49: *GROUND SOLDIER SYSTEM (GSS)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Army Configuration Steering Board (CSB)	4	2011	4	2011

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S51: *AIRCREW INTEGRATED SYS AD*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
S51: *AIRCREW INTEGRATED SYS AD*	0.156	0.136	0.141	-	0.141	0.164	0.164	0.157	0.160	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project supports the Advanced Component Development and Prototyping of select Air Soldier System (Air SS) components. The Air SS provides improved safety, survivability, and human performance that amplifies the Warfighter's effectiveness and facilitates full-spectrum dominance of Army aircraft. The Air SS addresses capability gaps identified during combat operations in Iraq and Afghanistan including the effects of weight and bulk, limited situational awareness, and lack of functionally integrated aircrew member life support equipment. The Air SS follows an evolutionary acquisition approach with two sub-increments that integrate mature technologies to build to the full capability. Each sub-increment progressively reduces overall weight and bulk of aircrew equipment, increases situational awareness, and enhances aircrew mobility. This funding provides advanced development for the Air SS in technology areas supporting improved environmental cooling, integrated power, flexible display technologies, lightweight protective clothing, and miniaturized communication devices.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Aircrew Integrated Systems (ACIS) Advanced Development	0.156	0.136	0.141
Articles:	0	0	
Description: Advanced Component Development and Prototyping (ACDP) of critical aircrew support systems technology improvements and Advanced Development (AD) and risk reduction effort required for transition to Engineering Manufacturing Development (EMD) phase.			
FY 2011 Accomplishments: Funded laboratories to monitor and influence Air SS technologies to include wearable environmental cooling, integrated wearable power, and lightweight protective clothing technologies into the EMD phase of Air SS.			
FY 2012 Plans: Fund laboratories to monitor and influence Air SS technologies to include flexible display technologies, and lightweight protective clothing materials into the EMD phase.			
FY 2013 Plans: Will fund laboratories to monitor and influence Air SS technologies to include advanced helmet mounted display technologies and miniaturized communication devices into Air SS EMD phase.			
Accomplishments/Planned Programs Subtotals	0.156	0.136	0.141

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S51: *AIRCREW INTEGRATED SYS AD*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• ACIS Engineering Development: *RDTE, A PE 0604601A PROJ S61-SDD*	9.997	10.936	17.175		17.175		21.772	12.516	12.642	Continuing	Continuing
• Aircrew Integrated Systems: *Aircraft Procurement, Army SSN AZ3110 - ACIS*	52.125	62.746	77.381		77.381		16.347	14.080	0.008	Continuing	Continuing

D. Acquisition Strategy

The Air SS follows an evolutionary acquisition approach with two sub-increments that build to the full capability. Through the two sub-increments, the Air Soldier System program focuses on reducing weight and bulk while integrating capabilities including optimized survival equipment, integrated Soldier-worn electronics suite, integrated wireless aircraft and survival communications capability, a digital day/night heads-up display for all Army aircraft platforms, optimized laser eye protection, and reduced clothing layers with no loss of thermal protection. These funds resource various government agencies to transition critical technologies/products from the Advanced Component Development to the Engineering Manufacturing Development phase in support of the identified Air Soldier System sub-increments.

E. Performance Metrics

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

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S52: *SOLDIER SUPPORT EQUIPMENT - AD*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
S52: *SOLDIER SUPPORT EQUIPMENT - AD*	4.700	6.202	5.046	-	5.046	2.714	1.770	1.113	-	Continuing	Continuing
Quantity of RDT&E Articles											

Note

This was a new start in FY 2012

A. Mission Description and Budget Item Justification

The Gunshot Detection System (GDS) was identified by the Vice Chief of Staff of the Army for insertion into the Capabilities Development for Rapid Transition (CDRT) process. A Capabilities Production Document (CPD) was approved on 13 Feb 2009. On 3 May 2010 an Army Acquisition Objective (AAO) was approved for 13,424 systems. The system uses passive acoustic and / or another sensor modality for detection, computer-based signal processing, and both aural and visual indications to help troops locate a hostile shooter, by reporting relative shooter azimuth, range, and elevation from incoming small arms fire. The visual data is displayed on a single ruggedized display and the verbal/voice over a speaker.

FY 2011 efforts for Explosive Ordinance Disposal (EOD) Robotic and Dismounted Equipment - Design, prototype, integration and demonstration in support of the following efforts: Robotic Telescoping Pan, Tilt, Zoom (PTZ) Camera; High Fidelity Video Imaging; Bangstick; Improved Laser Sight for Pan Disrupter; Multishot Disrupter for Robot Applications; Ultra Lightweight MK2 EOD Disrupter; and Precision Disrupter Robotic Aiming System.

The FY 2013 funds will be used for the development of engineering documentation, generation of an Acquisition Requirements Package (ARP) to support conduct of Source Selection activities leading to a competitive contract award in FY2014.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: System Characterization Study	-	3.177	-
Articles:		0	
Description: Study to be conducted to ascertain system performance, Technology Readiness Level (TRL) and Analysis of Alternatives (AoA) and associated PMO.			
FY 2012 Plans: The FY2012 funds will be used for a System Characterization study to be conducted by the Armament Research Development & Engineering Center (ARDEC) Acoustic Center of Excellence (ACoE). This study will ascertain system performance, Technology			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S52: *SOLDIER SUPPORT EQUIPMENT - AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Readiness Level (TRL) and Analysis of Alternatives (AoA). This information will be used in development mature Engineering Documentation.			
Title: Explosive Ordinance Disposal (EOD) Robotic and Dismounted Equipment ***Articles:*** ***Description:*** EOD Robotic and Dismounted Equipment - Design, prototype, integration and demonstration in support of the following efforts: Robotic Telescoping Pan Tilt Zoom (PTZ) Camera; High Fidelity Video Imaging; Bangstick; Improved Laser Sight for Pan Disrupter; Multishot Disrupter for Robot Applications; Ultra Lightweight MK2 EOD Disrupter; and Precision Disrupter Robotic Aiming System. ***FY 2011 Accomplishments:*** Designed, developed prototypes, integrated and demonstrated most systems on an EOD robotic platform or prototype hardware ready for user assessment. For the Multishot Disrupter project, developed subsystem prototypes (recoil mitigation system, fluidic filling and sealing system, magnetic chambering and extraction system, receiver and lock mechanism, and an operator control unit interface) for testing. For the Ultra Lightweight Mk2 dearmer project conducted modeling and simulation for strength/weight optimization; produced a TDP drawing package and a live fire test report.	4.700 0	-	-
Title: Engineering Documentation ***Articles:*** ***Description:*** Development of required engineering documentation for this Program of Record (POR) and associated Program Management Office (PMO)support. ***FY 2012 Plans:*** The FY2012 funds will be used for the development of a Performance Specification, Interface Control Document (ICD) and Performance Work Statement (PWS). ***FY 2013 Plans:*** This will provide for Performance Specification and Interface Control Documentation.	-	1.749 0	1.521
Title: Engineering Services and Test Support ***Articles:*** ***Description:*** Perform engineering analysis and provide test support to Technology Readiness Assessment (TRA); support Bid Sample testing and associated PMO.	-	1.276 0	1.439

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S52: *SOLDIER SUPPORT EQUIPMENT - AD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
FY 2012 Plans: The FY2012 funds will be used to support the System Characterization Study. Additionally, the funds will support Subject Matter Experts (SME) in RADAR, IR and Acoustic technologies to provide analysis and support to the System Characterization. ***FY 2013 Plans:*** The FY2013 funds will be used for Program Management Office Services, Engineering and Test support.			
Title: Source Selection Activities ***Description:*** Conduct of source selection to support 1QFY2014 contract award. ***FY 2013 Plans:*** FY2013 funds will be used for source selection and to support a full and open contract award for a 5 year production contract in 1QFY2014.	-	-	2.086
Accomplishments/Planned Programs Subtotals	4.700	6.202	5.046

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• SSN: BA3301 Gunshot Detection Syste: *SSN: BA3301 Gunshot Detection System (GDS) Program of Record*		11.100	2.332		2.332		26.970	73.719	53.431	384.740	576.452

D. Acquisition Strategy

The FY 2013 funds will be used for the development of engineering documentation, generation of the Acquisition Requirements Package (ARP), and conduct of Source Selection activities leading to a competitive Contract Award in FY 2014. Upon Milestone Decision Approval, future enhancements are planned to be initiated for an Variant 2 solution to meet the requirements of Tracked/Combat Vehicles as specified in the CPD.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S52: *SOLDIER SUPPORT EQUIPMENT - AD*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Office Support Services	Various	PM FLIR:Ft. Belvoir, VA	-	0.947		0.449		-		0.449	Continuing	Continuing	Continuing
		Subtotal	-	0.947		0.449		-		0.449			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Documentation	MIPR	TBD:TBD	-	-		1.521		-		1.521	Continuing	Continuing	Continuing
System Characterization Study	MIPR	ARDEC Acoustic Center of Excellence:Picatinny, NJ	-	2.230		-		-		-	Continuing	Continuing	Continuing
		Subtotal	-	2.230		1.521		-		1.521			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Services	Various	TBD:TBD	-	1.276		0.740		-		0.740	Continuing	Continuing	Continuing
Source Selection Support	Various	TBD:TBD	-	-		2.086		-		2.086	Continuing	Continuing	Continuing
		Subtotal	-	1.276		2.826		-		2.826			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EOD Robotic Dismounted Equipment	C/TBD	Various:Various	4.700	1.749		-		-		-	0.000	6.449	4.700
GDS Test Support	MIPR	TBD:TBD	-	-		0.250		-		0.250	0.000	0.250	0.250

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S52: *SOLDIER SUPPORT EQUIPMENT - AD*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	4.700	1.749		0.250		-		0.250	0.000	6.699	4.950

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	4.700	6.202		5.046		-		5.046			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603827A: *Soldier Systems - Advanced Development*	**PROJECT** S52: *SOLDIER SUPPORT EQUIPMENT - AD*

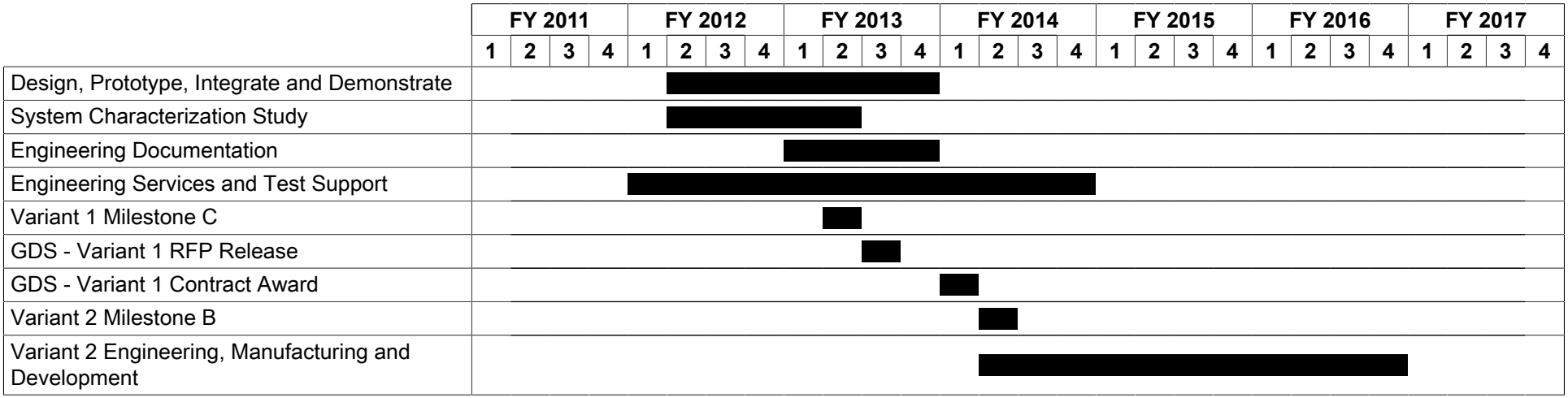

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603827A: *Soldier Systems - Advanced Development*	**PROJECT** S52: *SOLDIER SUPPORT EQUIPMENT - AD*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Design, Prototype, Integrate and Demonstrate	2	2012	4	2013
System Characterization Study	2	2012	2	2013
Engineering Documentation	1	2013	4	2013
Engineering Services and Test Support	1	2012	4	2014
Variant 1 Milestone C	2	2013	2	2013
GDS - Variant 1 RFP Release	3	2013	3	2013
GDS - Variant 1 Contract Award	1	2014	1	2014
Variant 2 Milestone B	2	2014	2	2014
Variant 2 Engineering, Manufacturing and Development	2	2014	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S53: *CLOTHING AND EQUIPMENT*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
S53: *CLOTHING AND EQUIPMENT*	6.935	5.220	7.189	-	7.189	7.222	6.944	5.144	5.143	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This funding supports efforts to evaluate and integrate technologies and representative or prototype systems that help expedite Soldier uniform and clothing technology transition from the laboratory to operational use. Efforts focus on proving out commonality across as broad a spectrum of users as possible to provide a modular, integrated uniform/clothing system from skin out and head-to-toe. It funds efforts to investigate new technologies and domestically available fabrics with Flame Resistance, moisture wicking and insect protection technologies. New technologies are investigated to monitor health and improve Soldier lethality, survivability, reduce weight, and improve affordability, mobility and comfort in combat and training/admin environments.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Individual Soldier Ballistic Protection (Moves to Program Element 0603827 VS4 in FY12)	5.198	-	-
Articles:	0		
Description: Increase the Warfighter lethality and mobility by optimizing Soldier protection while effectively managing all life cycle aspects of Personal Protective Equipment (PPE).			
FY 2011 Accomplishments: Awarded seven contracts against Broad Agency Announcement (BAA) to develop, design, test and evaluate hard and soft armor component characteristics and identify potential solutions for mission tailorable Personal Protective Equipment (PPE). Integrated emerging data and lessons learned into the Soldier Protection System (SPS) Capability Development Document (CDD), a requirement for a fully integrated head, torso and extremity protection system. Completed market surveys and prototype evaluations to develop acquisition and contracting strategy to support 3Q FY11 Milestone B decision for the Family of Concealable Body Armor (FoCBA) and transitioned to Engineering and Manufacturing Development (EMD). Awarded contract to integrate self-diagnostic Smart Sensor Systems into hard armor plates. Continued efforts to characterize and synchronize the sensitivity, accuracy, repeatability, and reliability of the Smart Sensors for transition to EMD, (0604601/VS5) in FY12. Initiated blast testing and other characterization studies of potential solutions to provide improved extremity protection (including inner thigh and pelvic region) for blast threats. Awarded contracts to characterize critical performance attributes and manufacturing processes for the Enhanced Combat Helmet (ECH).			
Title: Soldier Uniforms and Clothing	1.237	3.000	4.000
Articles:	0	0	

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S53: *CLOTHING AND EQUIPMENT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Develop and provide superior and sustainable integrated clothing for the Soldier in a rapidly changing global environment. ***FY 2011 Accomplishments:*** Investigated and tested new technologies and domestically available fabrics relevant to flame resistance, Fire Resistant Environmental Ensemble (FREE) improvements, and T-shirts. Testing included laboratory and physical properties testing on over 60 different fabrics for use in military uniforms and equipment. Testing resulted in additional qualified rip-stop and twill fabrics being authorized for use in military uniforms. Investigated new technologies to improve Soldier lethality, survivability, reduce weight and improve affordability, mobility and comfort in combat and training/admin environments. Performed Flame Resistant (FR) and Permethrin testing on combat uniforms which verified adequate levels of FR protection and permetherin efficacy. ***FY 2012 Plans:*** Continue to mature new technology to reduce Soldier load and weight. Pursue and integrate Science & Technology efforts on fine gauge domestic wool to provide a natural Flame Resistant (FR) and no melt, no drip fabric that provides warmth when wet. Improve infrared performance and colorfastness of clothing to improve signature management. Test Permethrin treatment for use in the Improved Combat Vehicle Crewman Coverall (iCVC) and non-FR Army Combat Uniforms. ***FY 2013 Plans:*** Will continue to mature new technology to reduce Soldier load and weight. Will pursue improvement in concealment through integration of new fabric technologies to manage infrared signature. Continue to test improvements in Permethrin treatment and Flame Resistant (FR) capabilities for use in combat uniforms. Will integrate new technologies for environmental protection for Military Free Fall (MFF) parachutists.			
Title: Individual Equipment	0.500	2.220	3.189
Articles:	0	0	
Description: Develop and provide superior and sustainable integrated individual equipment for the Soldier in a rapidly changing global environment. ***FY 2011 Accomplishments:*** Investigated new technologies and fabrics relative to Soldier equipment such as load bearing equipment, gloves, and Nuclear, Biological, and Chemical (NBC) gear. Integrated printing and dying into the Tactical Assault Panel (TAP) allowing the TAP to be utilized with varying camouflage patterns and colors. ***FY 2012 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S53: *CLOTHING AND EQUIPMENT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Pursue an improvement in the universal parachutist's kit to accommodate the larger T-11 parachute. Pursue development of Knee and Elbow pads with improved durability, fit and comfort while reducing weight. Improve concealment through the integration of new technologies to manage infrared signature of fabrics, including nylon used in existing individual equipment. Initiate testing of the Individual Water Treatment Device (IWTD) Increment II (desalinization of sea water or salt water). ***FY 2013 Plans:*** Will evaluate, integrate and test the following Personnel Airdrop items: deconfliction tool for Military Free Fall (MFF) operations, enhanced Navigational Aid technology, MFF Drogue System, a new universal harness and container for parachutists, T-11 connector links, Advanced Tactical Parachute System (ATPS) canopy cloth, and the Electronic Automatic Activation Device (EAAD). Will integrate new technologies to include FR face gel, high fidelity height sensor, and environmental protection for MFF parachutists. Will complete Individual Water Treatment Device Incr I (water filtration) and Incr II transition to EMD by 1QFY14 (0604601A/S60).			
Accomplishments/Planned Programs Subtotals	6.935	5.220	7.189

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• 0604601A S60: *RDTE, 0604601A.S60, Clothing and Equipment*	9.711	6.322	5.478		5.478		1.967	2.057	2.092	Continuing	Continuing
• 121017 CFF OMA: *OMA, 121017, Central Funding and Fielding*	71.429	72.171	75.961		75.961		124.365	125.670	127.008	Continuing	Continuing
• MA7801 OPA: *OPA, MA7801, Advanced Tactical Parachute System*	41.591	52.185	45.497		45.497		44.234	42.016	40.234	Continuing	Continuing

D. Acquisition Strategy

Programs pursue normal transition to Engineering and Manufacturing Development (EMD) and production. This Project continues to exercise competitively awarded contracts using best value source selection procedures.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S53: *CLOTHING AND EQUIPMENT*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
In-House Support	TBD	PM SPIE:Ft. Belvoir, VA	11.134	1.150		1.000		-		1.000	Continuing	Continuing	Continuing
		Subtotal	11.134	1.150		1.000		-		1.000			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	MIPR	NSRDEC:Natick, MA	11.353	0.925		1.034		-		1.034	Continuing	Continuing	Continuing
Development Contracts	C/Various	Various:Various	19.917	2.000		3.155		-		3.155	Continuing	Continuing	Continuing
		Subtotal	31.270	2.925		4.189		-		4.189			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Misc Support Costs	MIPR	Various:Various	6.177	-		0.500		-		0.500	Continuing	Continuing	Continuing
		Subtotal	6.177	-		0.500		-		0.500			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Testing Costs	TBD	various:Various	11.668	1.145		1.500		-		1.500	Continuing	Continuing	Continuing
		Subtotal	11.668	1.145		1.500		-		1.500			

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	60.249	5.220		7.189		-		7.189			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S53: *CLOTHING AND EQUIPMENT*

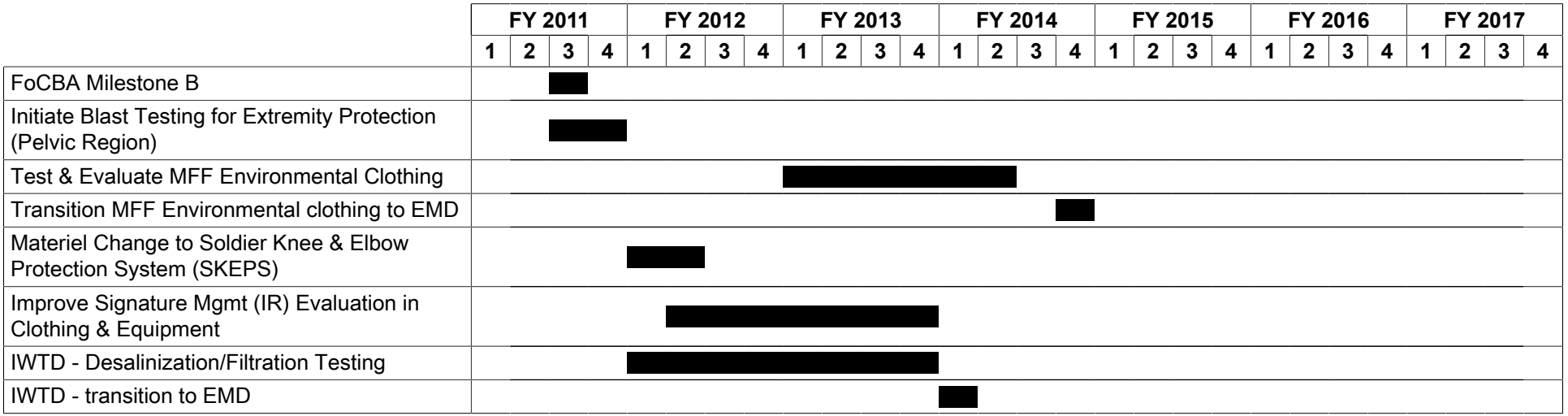

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603827A: *Soldier Systems - Advanced Development*	**PROJECT** S53: *CLOTHING AND EQUIPMENT*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
FoCBA Milestone B	3	2011	3	2011
Initiate Blast Testing for Extremity Protection (Pelvic Region)	3	2011	4	2011
Test & Evaluate MFF Environmental Clothing	1	2013	2	2014
Transition MFF Environmental clothing to EMD	4	2014	4	2014
Materiel Change to Soldier Knee & Elbow Protection System (SKEPS)	1	2012	2	2012
Improve Signature Mgmt (IR) Evaluation in Clothing & Equipment	2	2012	4	2013
IWTD - Desalinization/Filtration Testing	1	2012	4	2013
IWTD - transition to EMD	1	2014	1	2014

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S54: *SMALL ARMS IMPROVEMENT*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
S54: *SMALL ARMS IMPROVEMENT*	4.805	4.577	4.690	-	4.690	5.432	5.469	5.100	5.186	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Small Arms Improvement Advanced Component Development and Prototypes (ACD&P) program provides funds to mature, demonstrate, test and evaluate emerging technology from Joint Service Small Arms Program (JSSAP), Project 627, Program Element 0603607A, (Budget Activity 3) and other domestic and foreign sources for small arms weapons systems and technology. Small arms systems include weapons ranging up to 40 millimeter in caliber. Current and future efforts focus on improvements designed to enhance lethality, target acquisition, fire control, training effectiveness and reliability of weapons to include ammunition when developing and/or evaluating standard and non-standard weapons. Focus areas include the maturing of technology through testing and evaluation of sub-system components or system prototypes which demonstrates light weight materials, wear resistant/protective coatings, observation/situational awareness improvements and equipment enhancements. Benefits include continuous improvements to small arms weapons, fire control equipment, optics, gun barrels, training devices, suppressors, component mounts, weapon mounts, and weapon/ammunition interface.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: New Weapons	0.058	0.076	2.000
Articles:	0	0	
Description: Description: Development of new small arms weapons ***FY 2011 Accomplishments:*** Evaluated on-going initiatives of the Joint Service Small Arms Program (JSSAP). Reviewed technology readiness level of the light weight machine gun. Provided program management guidance to support future Capability Development Documents. ***FY 2012 Plans:*** Develop a plan to transition advanced technology development of caseless/cased telescoped ammunition and light weight weapons initiatives from Joint Service Small Arms Program (JSSAP), Project 627, Program Element 0603607A, (Budget Activity 3) to PM Soldier Weapons. ***FY 2013 Plans:*** Will test and evaluate caseless/cased telescoped ammunition and/or light weight weapons initiatives to demonstrate sub-system components or system prototypes to address light weight requirements.			
Title: Small Arms Weapons Enhancements	1.925	2.458	0.323
Articles:	0	0	

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S54: *SMALL ARMS IMPROVEMENT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Description: Enhancement developments of small arms weapons ***FY 2011 Accomplishments:*** M4 Reliability Study: Initiated M4 Reliability study which includes the barrel twist to enhance the performance of small arms weapons using lead free ammunition (M855A1-EPR). Conducted environmental, reliability and durability, high temperature and low temperature testing. Weapon Evaluation: Purchased several non-standard weapons for test and evaluation. ***FY 2012 Plans:*** Continue to test, evaluate and analyze on-going and new activities to enhance small arms weapons. Test and demonstrate system coatings. Conduct weapons studies for small arms weapons and manufacturing technologies. Continue to evaluate on-going characterization studies of standard and non-standard weapons. Conduct barrel studies to improve/enhance barrel life. M4 Reliability Study: Continue M4 Reliability testing to optimize lead free ammunition. Weapon Evaluation: Initiate characterization study of standard and non-standard weapons. Test and evaluate two non-standard rifles. ***FY 2013 Plans:*** Will continue to test, evaluate and analyze on-going and new activities to enhance small arms weapons. Will test and demonstrate system coatings. Will conduct weapon studies for small arms weapons and manufacturing technologies. Will continue to evaluate on-going characterization studies of standard and non-standard weapons. Will conduct barrel studies to improve/enhance barrel life. Will complete and transition barrel twist optimization to engineering and manufacturing development of weapon enhancements.			
Title: Ammunition	0.025	-	-
Articles:	0		
Description: Description: Small arms ammunition improvement ***FY 2011 Accomplishments:*** Transitioned High Explosive Air Burst (HEAB) fuze enhancements into Engineering Manufacturing Development.			
Title: Combat Optics	0.025	0.100	0.200
Articles:	0	0	
Description: Description: Improvement of small arms combat optics ***FY 2011 Accomplishments:*** Transitioned potential reticule upgrades to Small Arms Improvements Engineering Manufacturing Development program. ***FY 2012 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S54: *SMALL ARMS IMPROVEMENT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Perform, evaluate and analyze combat optics and upgrade research and development efforts to mature optic technology. Provide engineering support and services to include engineering evaluations, verifications and validation of weapon system performance requirements. Studies include the Squad Common Optic (SCO) and Direct View Optic Resolution Standards. ***FY 2013 Plans:*** Will continue to perform, evaluate and analyze combat optics and upgrade research and development efforts to mature optic technology. Will provide engineering support and services to include engineering evaluations, verifications and validation of weapon system performance requirements. Studies, evaluation, and testing will continue on the Squad Common Optic (SCO) and Direct View Optic Resolution Standards. Transition SCO to Small Arms Improvement, Project S63, Program Element 0604601A (Budget Activity 5).			
Title: Fire Control	2.772	1.943	2.167
Articles:	0	0	
Description: Description: Small arms fire control ***FY 2011 Accomplishments:*** Integrated Fire Control for Small Arms: Completed market surveys and engineering evaluation to establish the statement of objectives and the scope of work. Awarded three (3) competitive contracts for Phase I of the Integrated Fire Control/Integrated Ballistic Reticle project which initiated Trade Studies and preliminary design concepts with each contractor. ***FY 2012 Plans:*** Integrated Fire Control for Small Arms: Complete Phase I and initiate Phase II of the program. Design, develop and demonstrate the proposed ballistic reticle system by each of the three contractors for the integrated fire control for small arms program. Require engineering prototypes for complete demonstration/validation of fire control capability and integration for Army small arms to include but not limited to; the 5.56mm, 7.62mm and .50 caliber shoulder fired rifle systems. Perform down selection for Phase II of most qualified vendors and award at least two competitive contracts to complete Phase II. ***FY 2013 Plans:*** Integrated Fire Control for Small Arms: Will initiate Phase III of the Integrated Fire Control/Ballistic Reticle study. Will finalize design, fabricate prototypes, conduct producibility studies, and conduct testing. Will transition Integrated Fire Control to Small Arms Improvement, Project S63, Program Element 0604601A, (Budget Activity 5). Will continue to study, test, and evaluate fire control technologies.			
Accomplishments/Planned Programs Subtotals	4.805	4.577	4.690

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S54: *SMALL ARMS IMPROVEMENT*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• Small Arms Improvement: *RDTE S63, Program Element 0604601A - Infantry Support Weapons*	18.705	18.150	19.617		19.617		14.560	14.601	14.740	Continuing	Continuing
• Joint Service Small Arms Program: *RDTE 627, Program Element 0603607A - Joint Service Small Arms Program (JSSAP)*	8.236	7.674	6.095		6.095		7.915	6.500	7.173	Continuing	Continuing

D. Acquisition Strategy

Primary strategy is to study, develop, demonstrate and evaluate emerging technologies that ultimately lead to enhancing/improving the small arms inventory.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S54: *SMALL ARMS IMPROVEMENT*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Allot	PM Soldier Weapons,:Picatinny Arsenal	1.415	0.411		0.425		-		0.425	Continuing	Continuing	Continuing
		Subtotal	1.415	0.411		0.425		-		0.425			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware Development	MIPR	Army Research Development Engineering Centers,:Multiple	6.033	1.302		1.320		-		1.320	Continuing	Continuing	Continuing
		Subtotal	6.033	1.302		1.320		-		1.320			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering	MIPR	Army Research Development Engineering Centers,:Multiple	7.607	1.688		1.725		-		1.725	Continuing	Continuing	Continuing
		Subtotal	7.607	1.688		1.725		-		1.725			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Testing	MIPR	Army Test and Evaluation Centers,:Multiple	3.981	1.176		1.220		-		1.220	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S54: *SMALL ARMS IMPROVEMENT*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	3.981	1.176		1.220		-		1.220			

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	19.036	4.577		4.690		-		4.690			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT S54: *SMALL ARMS IMPROVEMENT*

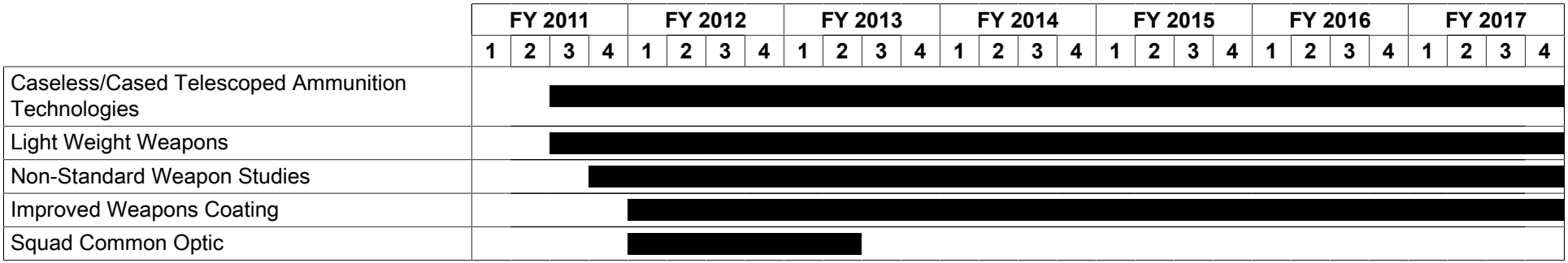

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603827A: *Soldier Systems - Advanced Development*	**PROJECT** S54: *SMALL ARMS IMPROVEMENT*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Caseless/Cased Telescoped Ammunition Technologies	3	2011	4	2017
Light Weight Weapons	3	2011	4	2017
Non-Standard Weapon Studies	4	2011	4	2017
Improved Weapons Coating	1	2012	4	2017
Squad Common Optic	1	2012	2	2013

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT VS4: *SOLDIER PROTECTIVE EQUIPMENT*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
VS4: *SOLDIER PROTECTIVE EQUIPMENT*	-	1.875	14.984	-	14.984	11.583	12.654	4.604	10.270	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This funding supports the Integrated Systems Design (ISD) phase of Engineering and Manufacturing Development (EMD) efforts to evaluate and integrate technologies and representative or prototype systems that help expedite Individual Soldier Ballistic Protection technology transition from the laboratory to operational use. It continues incremental improvement of body armor to reduce Soldier load and improve comfort/functionality based on operational feedback. It advances efforts to mature manufacturing readiness levels of advanced high performance fibers and composites for next-generation combat helmets, and supports transition to System Capability and Manufacturing Process Demonstration (SC&MPD) phase of EMD. It continues to increase eyewear ballistics/blast protection, and incorporates advancements in laser eye protection, as well as advancements in variable transition lens technology into ballistic goggles and spectacles.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Soldier Protective Equipment	-	1.875	14.984
Articles:		0	

Description: Newly established funding line. Effort was previously executed in Program Element 0603827 S53. Effort is to increase the Warfighter lethality and mobility by optimizing Soldier protection while effectively managing all life cycle aspects of Personal Protective Equipment (PPE).

FY 2012 Plans:
Initiate Integrated Systems Design (ISD) of Soldier Protection Mission Tailorable Body Armor (MTBA) to replace current generation of Improved Outer Tactical Vest (IOTV), Plate Carrier and Helmets for transition to 0604601 VS5 EMD in FY13. Conduct technology demonstrations (Soldier Protection Demonstrations, blast & ballistic characterization, etc.) to support refinement of critical system characteristics, including system performance (weight, ballistic/blast protection, flexibility and modularity) for integrated head & face protection capability. Evaluate technologies that reduce weight/bulk and increase durability/ reliability.

FY 2013 Plans:
Will conduct Soldier Protection Demonstrations (Human Factors and Limited User Evaluations) to assess technology readiness levels of Soldier Protection System (SPS) components to meet threshold requirements. Will continue to evaluate and mature subsystem technologies across the portfolio of Personal Protective Equipment (PPE) including extremity, vital torso, torso and face protection from emerging ballistic/blast threats. Efforts will focus on reducing weight and bulk, and increasing durability in terms of functional wear life. Will complete integration of Lightweight Enhanced Small Arms Protective Inserts (ESAPI), including

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT VS4: *SOLDIER PROTECTIVE EQUIPMENT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
the integration of self-diagnostic Smart Sensor and transition to 0604601 VS5 EMD. Transition other maturing technologies to 0604601 VS5 EMD beginning in FY 2013, to include Anthropometry and Range of Motion, Female IOTV and Plate Shapes.			
Accomplishments/Planned Programs Subtotals	-	1.875	14.984

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• Soldier Protective Equipment VS5: *RDTE, 0604601A.VS5, Soldier Protective Equipment*		3.986	11.814		11.814		7.227	12.700	4.750	0.000	53.754
• Central Funding & Fielding: *OMA, 121017, Central Funding & Fielding*	71.429	72.171	75.961		75.961		124.365	125.670	127.008	0.000	671.965

D. Acquisition Strategy

Programs pursue refinement and integration of new technology at the component and system level, culminating in the transition of mature technologies (TRL 6-7) to EMD and production. This project continues to exercise competitively awarded contracts using best value source selection procedures.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT VS4: *SOLDIER PROTECTIVE EQUIPMENT*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SETA Support	TBD	PM SPE:Ft. Belvoir, VA	-	0.100		0.100		-		0.100	Continuing	Continuing	Continuing
		Subtotal	-	0.100		0.100		-		0.100			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev/Sys Engineering Spt	MIPR	Various:Various	-	0.375		2.484		-		2.484	Continuing	Continuing	0.000
Dev/Integ Contracts	TBD	Various:various	-	0.700		10.000		-		10.000	Continuing	Continuing	Continuing
		Subtotal	-	1.075		12.484		-		12.484			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Misc Support Costs	MIPR	Various:various	-	0.300		0.600		-		0.600	Continuing	Continuing	Continuing
		Subtotal	-	0.300		0.600		-		0.600			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DT (Ballistic/Non-ballistic) & EOA Testing	MIPR	Various:Various	-	0.400		1.800		-		1.800	Continuing	Continuing	Continuing
		Subtotal	-	0.400		1.800		-		1.800			

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	1.875		14.984		-		14.984			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603827A: *Soldier Systems - Advanced Development*	PROJECT VS4: *SOLDIER PROTECTIVE EQUIPMENT*	

	Total Prior Years Cost	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603827A: *Soldier Systems - Advanced Development*	**PROJECT** VS4: *SOLDIER PROTECTIVE EQUIPMENT*

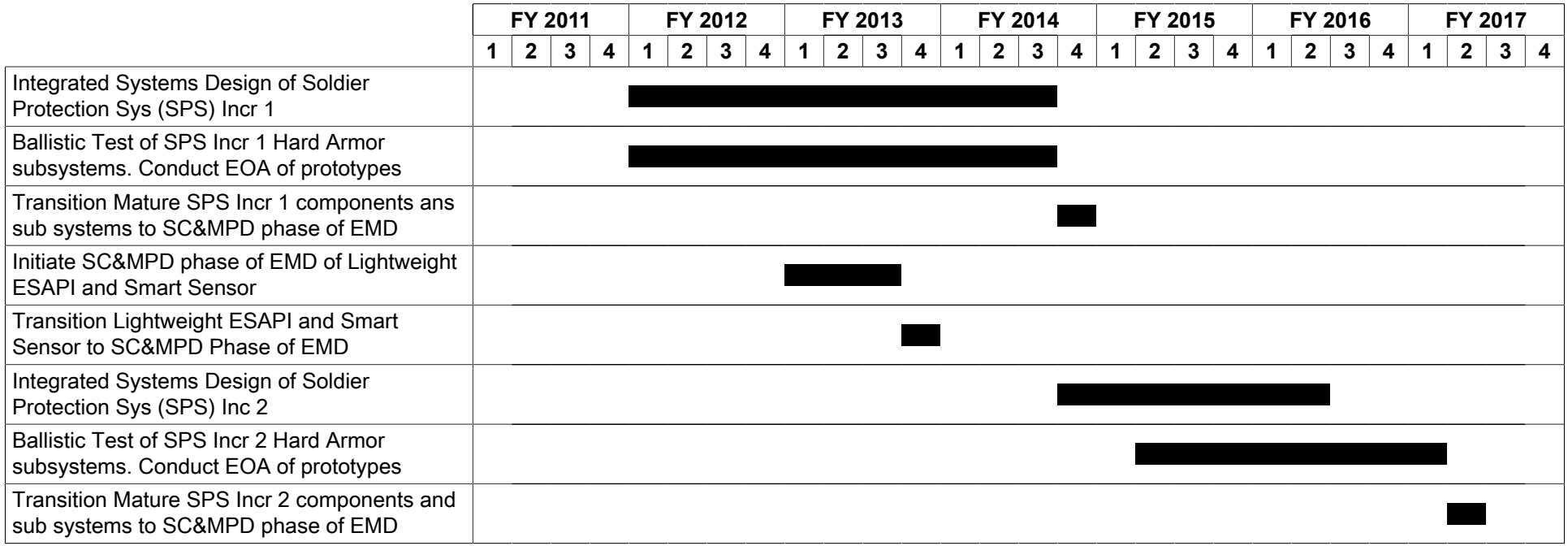

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603827A: *Soldier Systems - Advanced Development*	**PROJECT** VS4: *SOLDIER PROTECTIVE EQUIPMENT*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Integrated Systems Design of Soldier Protection Sys (SPS) Incr 1	1	2012	3	2014
Ballistic Test of SPS Incr 1 Hard Armor subsystems. Conduct EOA of prototypes	1	2012	3	2014
Transition Mature SPS Incr 1 components ans sub systems to SC&MPD phase of EMD	4	2014	4	2014
Initiate SC&MPD phase of EMD of Lightweight ESAPI and Smart Sensor	1	2013	3	2013
Transition Lightweight ESAPI and Smart Sensor to SC&MPD Phase of EMD	4	2013	4	2013
Integrated Systems Design of Soldier Protection Sys (SPS) Inc 2	4	2014	2	2016
Ballistic Test of SPS Incr 2 Hard Armor subsystems. Conduct EOA of prototypes	2	2015	1	2017
Transition Mature SPS Incr 2 components and sub systems to SC&MPD phase of EMD	2	2017	2	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603850A: *Integrated Broadcast Service*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	0.939	1.494	0.096	-	0.096	0.114	-	-	-	Continuing	Continuing
472: *INTEGRATED BROADCAST SERVICE (MIP)*	0.939	1.494	0.096	-	0.096	0.114	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Joint Program Office (JPO) for IBS Terminals supports all Services and Special Operations Command (SOCOM). The Integrated Broadcast Service (IBS) is the worldwide Department of Defense (DoD) standard network for transmitting time-sensitive tactical and strategic intelligence and targeting data to all echelons of Joint Service operational users. The JPO's role is to consolidate and replace existing IBS terminal functionality and capability, and to expedite execution of the IBS Technical Transition Plan (TTP). The JTT family of systems currently consists of the JTT-Senior and JTT-IBS. The TTP is a comprehensive refresh effort of the entire IBS network focused on rearchitecting the broadcast from its current multi-broadcast, multi-data format structure, to a single broadcast (Common Interactive Broadcast - CIB) and single data format (Common Message Format - CMF). The JTT family of systems is a critical component of the TTP as these systems are the only IBS receiver/transceiver devices in the DoD being modernized to support both the new consolidated broadcast architecture and the National Security Agency's (NSA) crypto modernization mandate. The JTT upgrades must execute the over-the-air broadcast portion of the TTP in the near term to avoid a complete cessation of IBS data flow via the existing over-the-air IBS broadcast networks. The JTT will be the official IBS producer system, ensuring continued IBS interoperability to a variety of tactical receivers across DoD and the services throughout the TTP implementation period and beyond. This program funds the integration and evaluation of JTT hardware and software modules, as well as implementing performance enhancements to the family of JTT equipment. This is necessary to ensure crypto modernization compliance and to facilitate migration to a rearchitected CIB and CMF-based IBS broadcast structure.

FY13 Funds of $.096 million support the final testing of the Common Interactive Broadcast (CIB) waveform migration to the IBS Intelligence Data Enterprise. The JTT technical insertion transitions to sustainment by the end of FY12. During the November 2010 POM brief, a zero-sum request was submitted to shift $1.5 million of FY13 Base Research, Development, Testing, and Evaluation dollars to FY13 Base Procurement dollars to sustain support for DoD customers.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army					DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*		R-1 ITEM NOMENCLATURE PE 0603850A: *Integrated Broadcast Service*			
B. Program Change Summary ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**
Previous President's Budget	0.970	1.496	1.540	-	1.540
Current President's Budget	0.939	1.494	0.096	-	0.096
Total Adjustments	-0.031	-0.002	-1.444	-	-1.444
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-0.031	-0.002	-1.444	-	-1.444

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603850A: *Integrated Broadcast Service*	PROJECT 472: *INTEGRATED BROADCAST SERVICE (MIP)*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
472: *INTEGRATED BROADCAST SERVICE (MIP)*	0.939	1.494	0.096	-	0.096	0.114	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Joint Program Office (JPO) for IBS Terminals supports all Services and Special Operations Command (SOCOM). The Integrated Broadcast Service (IBS) is the worldwide Department of Defense (DoD) standard network for transmitting time-sensitive tactical and strategic intelligence and targeting data to all echelons of Joint Service operational users. The JPO's role is to consolidate and replace existing IBS terminal functionality and capability, and to expedite execution of the IBS Technical Transition Plan (TTP). The JTT family of systems currently consists of the JTT-Senior and JTT-IBS. The TTP is a comprehensive refresh effort of the entire IBS network focused on rearchitecting the broadcast from its current multi-broadcast, multi-data format structure, to a single broadcast (Common Interactive Broadcast - CIB) and single data format (Common Message Format - CMF). The JTT family of systems is a critical component of the TTP as these systems are the only IBS receiver/transceiver devices in the DoD being modernized to support both the new consolidated broadcast architecture and the National Security Agency's (NSA) crypto modernization mandate. The JTT upgrades must execute the over-the-air broadcast portion of the TTP in the near term to avoid a complete cessation of IBS data flow via the existing over-the-air IBS broadcast networks. The JTT will be the official IBS producer system, ensuring continued IBS interoperability to a variety of tactical receivers across DoD and the services throughout the TTP implementation period and beyond. This program funds the integration and evaluation of JTT hardware and software modules, as well as implementing performance enhancements to the family of JTT equipment. This is necessary to ensure crypto modernization compliance and to facilitate migration to a rearchitected CIB and CMF-based IBS broadcast structure.

FY13 Funds of $.096 million support the final testing of the Common Interactive Broadcast (CIB) waveform for migration to the IBS Intelligence Data Enterprise. The JTT technical insertion transitions to sustainment by the end of FY12. During the November 2010 POM brief, a zero-sum request was submitted to shift $1.5 million of FY13 Base Research, Development, Testing, and Evaluation dollars to FY13 Base Procurement dollars to sustain support for DoD customers.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: JTT IBS CIB Integration	0.939	1.494	0.096
Articles:	0	0	
Description: Integration of the Common Interactive Broadcast (CIB) waveform for migration to the IBS Worldwide standard DoD Network and NSA Certification			
FY 2011 Accomplishments: JTT Senior Upgrade; integration of the Common Interactive Broadcast (CIB) waveform for migration to the IBS Worldwide standard DoD Network			
FY 2012 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603850A: *Integrated Broadcast Service*	PROJECT 472: *INTEGRATED BROADCAST SERVICE (MIP)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
JTT IBS CIB integration of the Common Interactive Broadcast (CIB) waveform for migration to the IBS Worldwide standard DoD Network ***FY 2013 Plans:*** Integration of the Common Interactive Broadcast (CIB) waveform for migration to the IBS Worldwide standard DoD Network and NSA Certification			
Accomplishments/Planned Programs Subtotals	0.939	1.494	0.096

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• V29600 Other Procurement, Army - JT: *V29600 Other Procurement, Army - JTT/CIBS-M (Tiara)*	3.303	4.657	1.641		1.641		0.849	0.874	0.900	0.000	13.048

D. Acquisition Strategy

As the broadcast networks continue to evolve and modify their formats and protocols, the JTT program will support IBS and various existing and future radios and host systems migrating to the CIB/CMF. Funds support the integration of the Common Interactive Broadcast (CIB) waveform for migration to the IBS Worldwide standard Department of Defense (DoD) Network.

E. Performance Metrics

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

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0604115A: *TECHNOLOGY MATURATION INITIATIVES*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	3.000	10.165	24.868	-	24.868	74.756	116.187	99.861	125.791	Continuing	Continuing
DS3: *TECHNOLOGY MATURATION INITIATIVES*	3.000	10.165	24.868	-	24.868	74.756	116.187	99.861	125.791	Continuing	Continuing

Note

FY11 funding increase for radar research via Prior Approval Reprogramming.

FY13 funding increase for Analysis of Alternatives (AoA) transfer, a pilot program to centrally fund the analysis of alternatives for new programs that have a material development decision but have not been assigned to a program manager for material development.

A. Mission Description and Budget Item Justification

This Program Element (PE) develops and demonstrates selected technology enabled capabilities to support advanced ground and aviation systems, precision weapons, and soldier equipment. Funding facilitates demonstration of relatively mature technologies and systems in relevant environments and tactical / operational scenarios, taking technologies through and beyond Technology Readiness Level (TRL) 6. Efforts include competitive prototyping earlier in development to facilitate transition of new capabilities into acquisition programs of record. Efforts funded will be selected by an Army Senior Executive Steering Committee to ensure that demonstrations have high potential for filling capability gaps and transition. This PE provides the Army an improved mechanism for fulfilling the goals of the Weapon Systems Acquisition Reform Act (WSARA) of 2009 by enabling greater competition in the latter stages of technology maturation and establishes a closer alignment between Science and Technology (S&T) programs and acquisition programs. This PE also provides analytical support for Analysis of Alternatives (AoA), a pilot program to centrally fund the analysis of alternatives for new programs that have a material development decision but have not been assigned to a program manager for material development. Funding for this effort was previously contained in 0605803A, project 733 in FY12.

The cited work is consistent with the Assistant Secretary of Defense, 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), Engineering Research Development Center (ERDC), and/or Space and Missile Defense Command (SMDC).

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army					DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*		R-1 ITEM NOMENCLATURE PE 0604115A: *TECHNOLOGY MATURATION INITIATIVES*			
B. Program Change Summary ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**
Previous President's Budget	-	10.181	19.771	-	19.771
Current President's Budget	3.000	10.165	24.868	-	24.868
Total Adjustments	3.000	-0.016	5.097	-	5.097
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	3.000	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-0.016	5.097	-	5.097

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604115A: *TECHNOLOGY MATURATION INITIATIVES*	PROJECT DS3: *TECHNOLOGY MATURATION INITIATIVES*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
DS3: *TECHNOLOGY MATURATION INITIATIVES*	3.000	10.165	24.868	-	24.868	74.756	116.187	99.861	125.791	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

This Project develops and demonstrates selected technology enabled capabilities to support advanced ground and aviation systems, precision weapons, and soldier equipment. Funding facilitates demonstration of relatively mature technologies and systems in relevant environments and tactical/operations scenarios, taking technologies through and beyond Technology Readiness Level (TRL) 6. Efforts include competitive prototyping earlier in development to facilitate transition of new capabilities into acquisition programs of record. Efforts funded will be selected by an Army Senior Executive Steering Group (ESG) to ensure that demonstrations have high potential for filling capability gaps and transition. This PE provides the Army an improved mechanism for fulfilling the goals of the Weapon Systems Acquisition Reform Act (WSARA) of 2009 by enabling greater competition in the latter stages of technology maturation and establishes a closer alignment between Science and Technology (S&T) programs and acquisition programs. This PE also provides analytical support for Analysis of Alternatives (AoA), a pilot program to centrally fund the analysis of alternatives for new programs that have a material development decision but have not been assigned to a program manager for material development. Funding for this effort was previously contained in in 0605803A, project 733 in FY12.

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

Work in the PE is performed by the Research, Development and Engineering Command (RDECOM), Engineering Research Development Center (ERDC), and/or the Space and Missile Defense Command (SMDC).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Design, Fabricate, Evaluate, and Demonstrate	-	10.165	13.997
Articles:		0	
Description: This effort will establish the Senior ESC, including governance, and select technologies in advanced ground systems, aviation systems, precision weapons, and/or soldier equipment that show high promise for achieving full potential to execute the necessary continuation of design, fabrication, evaluation, and demonstration within a high fidelity and realistic operating environment to transition into formal programs of record.			
FY 2012 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604115A: *TECHNOLOGY MATURATION INITIATIVES*	PROJECT DS3: *TECHNOLOGY MATURATION INITIATIVES*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Initiate five technology maturation and/or prototyping efforts: Integrated Soldier Power and Data Systems ($1.5 million); Azimuth and Vertical Angle Module (AVAM) for the Joint Effects Targeting System ($2 million); Next Generation Wireless Communications for Logistics ($2 million); Tier 1 Soldier Battery Charger ($1.17 million); and Advanced Weapon Sight Technology for Family of Weapon Sights ($2 million). ***FY 2013 Plans:*** Will mature one or more technology-enabled capability prototyping efforts initiated with FY12 funds; develop test parameters and assessment criteria for these efforts. Will select one or more technology-enabled capability prototyping efforts and initiate with FY13 funds.			
Title: Analytical Support for Analysis of Alternatives ***Description:*** This effort provides analytical support for Analysis of Alternatives (AoA). In FY12, this effort was funded in Program Element 0605803A, project 733. ***FY 2013 Plans:*** Will support a pilot program to centrally fund the analysis of alternatives for new programs that have a material development decision but have not been assigned to a program manager for material development.	-	-	10.871
Title: Groundhog ***Articles:*** ***Description:*** Groundhog is a Ground Penetrating Radar (GPR) system that uniquely improves route clearance detection capabilities. This program is executed by the U.S. Army Engineer Research and Development Center. ***FY 2011 Accomplishments:*** The Fiscal Year 2011 Omnibus Reprogramming redirected funds of $3 million to support the Fiscal Year 2012 effort of field assessments (including in theater assessments) and technology maturation/ improvements based on end-user feedback of the Groundhog system.	3.000 0	-	-
Accomplishments/Planned Programs Subtotals	3.000	10.165	24.868

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Multiple competitive contracts will be awarded based on selection of efforts from the Senior ESC. The various developmental programs in this project will continue to exercise competitively awarded contracts using best value source selection procedures.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0604115A: *TECHNOLOGY MATURATION INITIATIVES*	**PROJECT** DS3: *TECHNOLOGY MATURATION INITIATIVES*

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604115A: *TECHNOLOGY MATURATION INITIATIVES*	PROJECT DS3: *TECHNOLOGY MATURATION INITIATIVES*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Soldier Power and Data System	C/FFP	TBD:TBD	-	1.500		0.500		-		0.500	0.000	2.000	0.000
Azimuth and Vertical Angle Module (AVAM) for the Joint Effects Targeting System (JETS)	C/CPFF	TBD:TBD	-	1.996		1.000		-		1.000	0.000	2.996	0.000
Next Generation Wireless communications (NGWC) for Logistics	SS/IDIQ	ARINC:Annapolis, MD	-	1.996		2.000		-		2.000	0.000	3.996	0.000
Tier 1 Soldier Battery Charger	C/FFP	TBD:TBD	-	1.168		0.830		-		0.830	0.000	1.998	0.000
Advanced Weapon Sight Technology for Family of Weapon Sights (FWS)	C/FFP	TBD:TBD	-	1.996		0.960		-		0.960	0.000	2.956	0.000
Groundhog	MIPR	MIT Lincoln Labs:Lexington, MA	0.095	-		-		-		-	0.000	0.095	0.000
Groundhog	RO	Stolar, Inc:Raton, NM	1.675	-		-		-		-	0.000	1.675	0.000
Groundhog	Allot	Engineer Research, Development and Engineering Center:Hanover, NH	1.230	-		-		-		-	0.000	1.230	0.000
S&T Technology Maturation and Prototyping	C/TBD	TBD:TBD	-	1.509		8.707		-		8.707	0.000	10.216	0.000
		Subtotal	3.000	10.165		13.997		-		13.997	0.000	27.162	0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Analytical Support for Analysis of Alternatives	C/TBD	TBD:TBD	-	-		10.871		-		10.871	0.000	10.871	0.000
		Subtotal	-	-		10.871		-		10.871	0.000	10.871	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604115A: *TECHNOLOGY MATURATION INITIATIVES*	PROJECT DS3: *TECHNOLOGY MATURATION INITIATIVES*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.000	10.165		24.868		-		24.868	0.000	38.033	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0604115A: *TECHNOLOGY MATURATION INITIATIVES*	**PROJECT** DS3: *TECHNOLOGY MATURATION INITIATIVES*

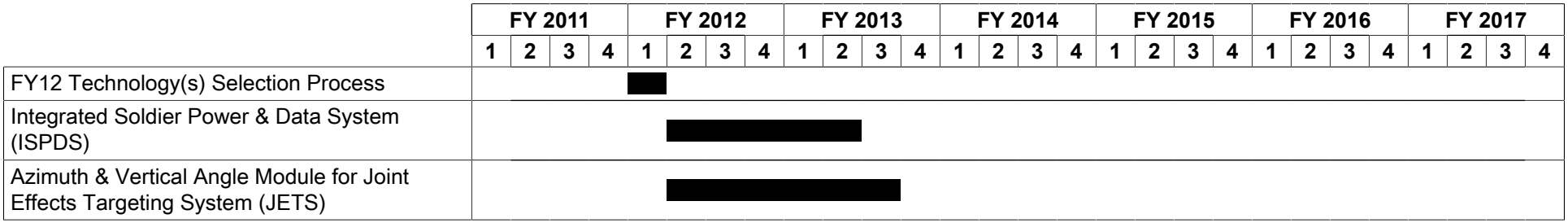

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0604115A: *TECHNOLOGY MATURATION INITIATIVES*	**PROJECT** DS3: *TECHNOLOGY MATURATION INITIATIVES*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
FY12 Technology(s) Selection Process	1	2012	1	2012
Integrated Soldier Power & Data System (ISPDS)	2	2012	2	2013
Azimuth & Vertical Angle Module for Joint Effects Targeting System (JETS)	2	2012	3	2013

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0604131A: *TRACTOR JUTE*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	-	15.584	0.059	-	0.059	-	-	-	-	Continuing	Continuing
DT1: *TRACTOR JUTE*	-	15.584	0.059	-	0.059	-	-	-	-	Continuing	Continuing

Note

program restructured to meet Army needs.

A. Mission Description and Budget Item Justification

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

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	-	15.609	13.468	-	13.468
Current President's Budget	-	15.584	0.059	-	0.059
Total Adjustments	-	-0.025	-13.409	-	-13.409
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-13.409	-	-13.409
• Other Adjustments 1	-	-0.025	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604131A: *TRACTOR JUTE*	PROJECT DT1: *TRACTOR JUTE*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
DT1: *TRACTOR JUTE*	-	15.584	0.059	-	0.059	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

Note

.

A. Mission Description and Budget Item Justification

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

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: .	-	15.584	0.059
Articles:		0	
Description: DT1			
FY 2012 Plans: .			
FY 2013 Plans: .			
Accomplishments/Planned Programs Subtotals	-	15.584	0.059

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Not Applicable

E. Performance Metrics

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

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0604284A: *JOINT COOPERATIVE TARGET IDENTIFICATION - GROUND (*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	-	15.287	-	-	-	-	-	-	-	Continuing	Continuing
VU4: *JCTI-G TECHNOLOGY DEVELOPMENT*	-	15.287	-	-	-	-	-	-	-	Continuing	Continuing

Note

Program has no FY13 Base or OCO RDTE requirement.

A. Mission Description and Budget Item Justification

Combat Identification (CID) is a family of systems to maximize the overall combat effectiveness of forces by minimizing and mitigating incidents of fratricide and maximizing the situational understanding of the trigger puller across the broad spectrum of Joint and Coalition combat operations. This is accomplished by the identification of friends, enemies/foes and neutrals in the Joint and Coalition battle space. Based on program prioritization direction from the Deputy Secretary of Defense and the Deputy's Advisory Working Group (DAWG), the Joint Cooperative Target Identification - Ground (JCTI-G) efforts have been refocused to address fratricide incidents involving Fires-on-Dismounts (FoD) and Air to Ground (A-G) fires. The FoD is a Joint effort with the United States Marine Corps. In accordance with an Army/Marine Corps MOA, funding for FoD systems development will be equitably shared between the two services. This program has been designated Special Interest by the Defense Acquisition Executive.

Program has no Base or OCO FY13 request.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	-	41.652	42.226	-	42.226
Current President's Budget	-	15.287	-	-	-
Total Adjustments	-	-26.365	-42.226	-	-42.226
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	-	-26.365	-42.226	-	-42.226

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604284A: *JOINT COOPERATIVE TARGET IDENTIFICATION - GROUND (*	PROJECT VU4: *JCTI-G TECHNOLOGY DEVELOPMENT*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
VU4: *JCTI-G TECHNOLOGY DEVELOPMENT*	-	15.287	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Project is continuation of PE 654817A, Project D482.

A. Mission Description and Budget Item Justification

Combat Identification (CID) is a family of systems to maximize the overall combat effectiveness of forces by minimizing and mitigating incidents of fratricide and maximizing the situational understanding of the trigger puller across the broad spectrum of Joint and Coalition combat operations. This is accomplished by the identification of friends, enemies/foes and neutrals in the Joint and Coalition battle space. Based on program prioritization direction from the Deputy Secretary of Defense and the Deputy's Advisory Working Group (DAWG), the Joint Cooperative Target Identification - Ground (JCTI-G) efforts have been refocused to address fratricide incidents involving Fires-on-Dismounts (FoD) and Air to Ground (A-G) fires. The FoD is a Joint effort with the United States Marine Corps. In accordance with an Army/Marine Corps MOA, funding for FoD systems development will be equitably shared between the two services. This program has been designated Special Interest by the Defense Acquisition Executive.

Program has no Base or OCO FY13 request.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Technology Development Contracts ***Articles:*** ***Description:*** Award of multiple (2+) competitive prototyping contracts ***FY 2012 Plans:*** Award of multiple (2+) competitive prototyping contracts	-	15.287 0	-
Accomplishments/Planned Programs Subtotals	-	15.287	-

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604284A: *JOINT COOPERATIVE TARGET IDENTIFICATION - GROUND (*	PROJECT VU4: *JCTI-G TECHNOLOGY DEVELOPMENT*

D. Acquisition Strategy

The JCTI-G Materiel Development Decision (MDD) Acquisition Decision Memorandum (ADM) was signed by the Defense Acquisition Executive, Dr. Ashton Carter, on 23 June 2010. The MDD ADM authorized the programs entry into the Materiel Solution Analysis (MSA) phase and commencement of the Analysis of Alternatives (AoA). The two phased AoA is expected to be completed by April 2011 resulting in program and materiel solution recommendations. The program Milestone (MS) A decision and entry into the Technology Development (TD) phase is expected in FY12. The MS A will be followed by release of the FoD Acquisition Requirements Package (ARP) to solicit and competitively awarded TD contracts in FY12. Two (or more) TD cost-plus type contracts will be awarded to competing teams to develop system (or key system elements) prototypes for demonstrating in a relevant environment and conduct a Preliminary Design Review (PDR) prior to MS B. A successful PDR, along with an approved Capability Development Document (CDD), and Acquisition Strategy will be the criteria supporting a MS B and entry into Engineering & Manufacturing Development (EMD) phase. The result of EMD will be a baseline system configuration for production. This strategy will require the support of other Military Services and Government agencies.

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604284A: *JOINT COOPERATIVE TARGET IDENTIFICATION - GROUND (*	PROJECT VU4: *JCTI-G TECHNOLOGY DEVELOPMENT*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	MIPR	PM, Nav Systems, PM, JCTI-G:Aberdeen Proving Ground, MD	-	2.980		-		-		-	0.000	2.980	0.000
		Subtotal	-	2.980		-		-		-	0.000	2.980	0.000

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Fires on Dismounts Technical Maturation	MIPR	CERDEC:Aberdeen Proving Ground, MD	-	9.029		-		-		-	0.000	9.029	12.000
TD Contracts Awarded	C/CPIF	TBD:TBD	-	3.278		-		-		-	0.000	3.278	Continuing
		Subtotal	-	12.307		-		-		-	0.000	12.307	

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	15.287		-		-		-	0.000	15.287	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0604284A: *JOINT COOPERATIVE TARGET IDENTIFICATION - GROUND (*	**PROJECT** VU4: *JCTI-G TECHNOLOGY DEVELOPMENT*

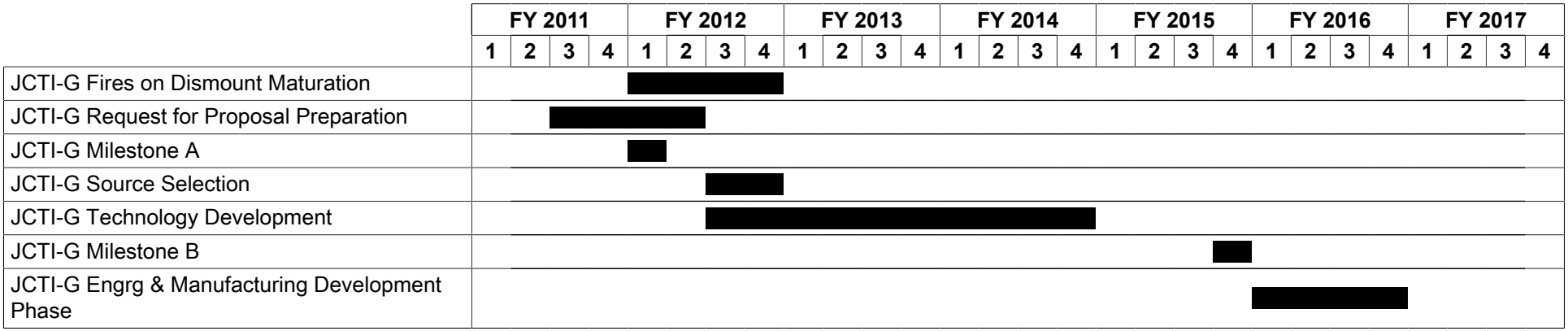

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0604284A: *JOINT COOPERATIVE TARGET IDENTIFICATION - GROUND (*	**PROJECT** VU4: *JCTI-G TECHNOLOGY DEVELOPMENT*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
JCTI-G Fires on Dismount Maturation	1	2012	4	2012
JCTI-G Request for Proposal Preparation	3	2011	2	2012
JCTI-G Milestone A	1	2012	1	2012
JCTI-G Source Selection	3	2012	4	2012
JCTI-G Technology Development	3	2012	4	2014
JCTI-G Milestone B	4	2015	4	2015
JCTI-G Engrg & Manufacturing Development Phase	1	2016	4	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604319A: *Indirect Fire Protection Capability Increment 2*

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	-	-	76.039	-	76.039	109.046	122.355	146.463	151.769	Continuing	Continuing
DU3: *IFPC2*	-	-	76.039	-	76.039	109.046	122.355	146.463	151.769	Continuing	Continuing

Note

FY 2013: Funds realigned ($0.817 milliom) to project DU3.

A. Mission Description and Budget Item Justification

This program supports the overall Air and Missile Defense (AMD) architecture and provides a robust intercept capability against rocket, artillery, and mortar (RAM) and residual Unmanned Aerial System (UAS) threats for deployed forces supporting stability and counterinsurgency operations. Indirect Fire Protection Capability Increment 2 (IFPC2) will integrate with current Counter-Rocket, Artillery, and Mortar (C-RAM), and RAM Warn Capability. When implemented, IFPC2 will provide 360 degree protection against RAM and residual UAS threats simultaneously attacking from multiple azimuths. Anticipated system will consist of a kinetic (missile or gun) and/or directed energy Interceptor, Fire Control Sensor, Technical Fire Control, Command Vehicle and control interfaces between major components. The specific system concept will be determined by an Analysis of Alternatives (AoA) to be completed in FY 2012. Tactical Command and Control is an external interface to the IFPC2 program to be provided by supported forces.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	-	76.039	-	76.039
Total Adjustments	-	-	76.039	-	76.039
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	75.222	-	75.222
• Other Adjustments 1	-	-	0.817	-	0.817

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604319A: *Indirect Fire Protection Capability Increment 2*	PROJECT DU3: *IFPC2*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
DU3: *IFPC2*	-	-	76.039	-	76.039	109.046	122.355	146.463	151.769	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Indirect Fire Protection Capability Increment II - Intercept (IFPC2) established a new Program Element (PE) 0604319A for its RDTE program.

Previous PE/Project/Title: 0603305A/TR7 Army Missile Defense Systems Integration/TR7 Indirect Fire Protection Capability II-Intercept

Current PE/Project/Title: 0604319A/DU3 Indirect Fire Protection Capability Increment 2/ DU3 IFPC2

Please note the following:
1) The funding in FY 2011-12 is shown in PE 0603305A and
2) The funding in FY 2013-17 is shown in PE 0604319A

A. Mission Description and Budget Item Justification

This program supports the overall Air and Missile Defense (AMD) architecture and provides a robust intercept capability against rocket, artillery, and mortar (RAM) and residual Unmanned Aerial System (UAS) threats for deployed forces supporting stability and counterinsurgency operations. Indirect Fire Protection Capability Increment 2 (IFPC2) will integrate with current Counter-Rocket, Artillery, and Mortar (C-RAM), and RAM Warn Capability. When implemented, IFPC2 will provide 360 degree protection against RAM and residual UAS threats simultaneously attacking from multiple azimuths. IFPC2 technologies may consist of kinetic and/or directed energy weapons, associated fire control sensors, and a technical fire control capability. The specific system concept will be determined by an Analysis of Alternatives (AoA) to be completed in FY 2012. Tactical Command and Control is an external interface to the IFPC2 program to be provided by supported forces.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: Milestone Documentation, Source Selection Evaluation Board, and contract execution	-	-	22.843
Description: Funding is provided for the following effort: ***FY 2013 Plans:*** Coordinate and execute Milestone Review. Complete establishment of requirements and functional baselines. Complete Contract Requirements Package development. Coordinate approval and release of Request for Proposal (RFP). Conduct a Source Selection Evaluation Board (SSEB). Receive and evaluate proposals. Recommend and coordinate with Milestone Decision			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0604319A: *Indirect Fire Protection Capability Increment 2*	**PROJECT** DU3: *IFPC2*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Authority contract awardees and award contracts. Initiate Technology Development Phase and system design efforts. Perform technical assessments, concept studies, cost reduction, risk reduction, and required documentation.			
Title: Engineering Technical supports Request for Proposal package, source selection process, technical evaluation and coordination for contract award ***Description:*** Funding is provided for the following effort: ***FY 2013 Plans:*** Provide engineering and technical support to the Indirect Fire Protection Capability Increment 2 (IFPC2) Product Office in completing the Request for Proposal (RFP) package, preparing for the source selection process, supporting technical evaluation of proposals, and coordinating through Contract Award. Provide support to the IFPC2 design process.	-	-	6.000
Title: Acquisition development phase contract initiation for the prime contractor ***Description:*** Funding is provided for the following effort ***FY 2013 Plans:*** Contract intitiation. Purchase prototype material. Support completion of component requirement definition. Begin design refinement from Science and Technology (S&T) effort to an acquisition baseline.	-	-	47.196
Accomplishments/Planned Programs Subtotals	-	-	76.039

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PE 0604869A, Proj M06: *Patriot/ MEADS Combined Aggregate Program (CAP)*	450.584	389.630	400.861		400.861					Continuing	Continuing
• PE 0605456A, Proj PA3: *PAC-3/ MSE MISSILE*	121.475	88.909	69.029		69.029		130.348	63.975	65.771	Continuing	Continuing
• SSN C53101: *MSE Missile*		74.953	12.850		12.850		505.084	596.387	566.757	Continuing	Continuing
• PE 0102419A, Proj E55: *JLENS*	399.477	327.338	190.422		190.422		32.480	24.130	24.612	Continuing	Continuing
• PE 0605455A, Proj S35: *SLAMRAAM*	18.358	1.529								Continuing	Continuing
• SSN C81002: *SLAMRAAM Launcher*	2.355									Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604319A: *Indirect Fire Protection Capability Increment 2*	PROJECT DU3: *IFPC2*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• SSN WK5053: *FAAD GBS*	258.413	3.958	7.980		7.980					Continuing	Continuing
• PE 0605457A, Proj S40: *Army Integrated Air and Missile Defense (AIAMD)*	246.691	270.180	262.211		262.211		394.260	210.580	135.072	Continuing	Continuing
• SSN BZ5075: *Army IAMD Battle Command System (IBCS)*							103.453	281.828	426.582	Continuing	Continuing
• PE 0208053, Proj 635: *JOINT TACT GRD STATION-P3I (MIP)*	12.005	27.586	31.738		31.738		8.006	8.134	8.314	Continuing	Continuing
• SSN BZ8401: *Joint Tactical Ground Station (JTAGS)*	9.227	1.199	2.680		2.680		4.432	4.496	4.768	Continuing	Continuing
• PE 0604820A, Proj E10: *SENTINEL*		2.885	3.486		3.486		1.948	2.972	3.022	Continuing	Continuing
• PE 654741, Proj 126: *FAAD C2 ED*	7.978	9.730	3.664		3.664		3.388	3.505	3.640	Continuing	Continuing
• PE 654741, Proj 146: *Air & Msl Defense Planning Control System*	18.783	15.518	15.381		15.381		14.670	15.171	16.409	Continuing	Continuing
• PE 654741, Proj 149: *Counter-Rockets, Artillery & Mortar*	112.901	57.684	54.288		54.288					Continuing	Continuing

D. Acquisition Strategy

The Materiel Development Decision (MDD) was completed in fourth quarter FY 2011, allowing for the initiation of an Analysis of Alternatives (AoA) to determine material solution approach; establishment of requirement baseline; initiation of development of required Milestone documents; initiation of development and approval of Contract Requirements Package (CRP); and execution of the Milestone decision to authorize proceeding into the next phase of development and prepare for a contract award in FY 2013.

Anticipated system will consist of a kinetic (missile or gun) and/or directed energy Interceptor, Fire Control Sensor, Technical Fire Control, Command Vehicle and control interfaces between major components.

Award multiple full and open competitive contracts at the beginning of the acquisition development phase for competing teams to develop interceptor/fire control sensor designs and key component/system prototypes which will be demonstrated in their tactical configurations for Government evaluation prior to a Preliminary Design Review.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604319A: *Indirect Fire Protection Capability Increment 2*	PROJECT DU3: *IFPC2*

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604319A: *Indirect Fire Protection Capability Increment 2*	PROJECT DU3: *IFPC2*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Product Office	TBD	Cruise Missile Defense Systems Project Office:Huntsville, AL	-	-		22.843		-		22.843	Continuing	Continuing	Continuing
Engineering Technical Centers	TBD	Aviation and Missile Research, Development, Engineering Center:Huntsville, AL	-	-		6.000		-		6.000	Continuing	Continuing	Continuing
Prime Contractor(s)	TBD	Multiple:TBD	-	-		47.196		-		47.196	Continuing	Continuing	Continuing
		Subtotal	-	-		76.039		-		76.039			

Remarks

Government and Engineering Technical Centers Product Development costs in FY 2013 cover the completion of required Milestone documentation (Technology Development Strategy; Test and Evaluation Strategy; System Engineering Plan); completion of Contract Requirements Package development in preparation for Milestone in FY 2013 and for a prime contract award in FY 2013. Prime Contractor(s) Product Development costs in FY 2013 cover contracting activities prior to Contract Award; purchase of materials for development phase prototypes; and initiation of design and development efforts.

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		76.039		-		76.039			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0604319A: *Indirect Fire Protection Capability Increment 2*	**PROJECT** DU3: *IFPC2*

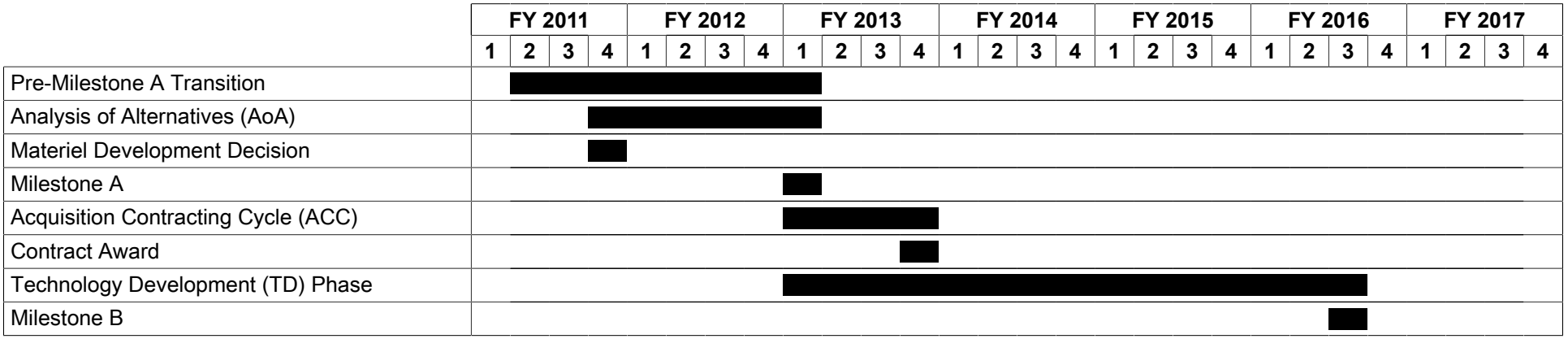

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0604319A: *Indirect Fire Protection Capability Increment 2*	**PROJECT** DU3: *IFPC2*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Pre-Milestone A Transition	2	2011	1	2013
Analysis of Alternatives (AoA)	4	2011	1	2013
Materiel Development Decision	4	2011	4	2011
Milestone A	1	2013	1	2013
Acquisition Contracting Cycle (ACC)	1	2013	4	2013
Contract Award	4	2013	4	2013
Technology Development (TD) Phase	1	2013	3	2016
Milestone B	3	2016	3	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*						R-1 ITEM NOMENCLATURE PE 0604775A: *Defense Rapid Innovation Program*					
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	101.265	-	-	-	-	-	-	-	-	Continuing	Continuing
DT7: *Research and Development*	101.265	-	-	-	-	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

This Program Element contains funding for the Army Rapid Innovation Fund (RIF). The RIF was established by Congress in Fiscal Year 2011 to support the transition of innovative technologies, primarily from small businesses, that resolve Joint Urgent Operational Needs (JUONs) or other critical national security needs. The Army uses the RIF to address the Top 10 Army Challenges.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	-	-	-	-	-
Current President's Budget	101.265	-	-	-	-
Total Adjustments	101.265	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	101.265	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604775A: *Defense Rapid Innovation Program*	PROJECT DT7: *Research and Development*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
DT7: *Research and Development*	101.265	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project contains funding for the Army Rapid Innovation Fund (RIF). The RIF was established by Congress in Fiscal Year 2011 to support the transition of innovative technologies, primarily from small businesses, that resolve Joint Urgent Operational Needs (JUONs) or other critical national security needs. The Army uses the RIF to address the Top 10 Army Challenges.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Army Rapid Innovation Fund	101.265	-	-
Articles:	0		
Description: The Army Rapid Innovation Fund funds projects addressing the Top 10 Army Challenges.			
FY 2011 Accomplishments: Solicit industry for proposals addressing the Top 10 Army Challenges. Fund proposals based on an established technical evaluation and scoring system.			
Accomplishments/Planned Programs Subtotals	101.265	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

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

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604785A: *INTEGRATED BASE DEFENSE*

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	-	-	4.043	-	4.043	4.476	3.855	3.897	3.962	Continuing	Continuing
DS4: *INTEGRATED BASE DEFENSE*	-	-	4.043	-	4.043	4.476	3.855	3.897	3.962	Continuing	Continuing

A. Mission Description and Budget Item Justification

Integrated Base Defense (IBD) provides integration of software and analytical capability to support the integration of systems in the field. IBD employs an enterprise approach to enable Integrated Base Defense capabilities across the operational spectrum by leveraging interoperability efforts in support of the Integrated Unit, Base, and Installation Protection (IUBIP) framework.

FY 2013 Research Development Test and Evaluation funding in the amount of $4.043 million supports the management, integration, and collaboration of specified Department of Defense Integrated Base Defense efforts to provide enhanced situational awareness, increased efficiencies, and more effective responses for both tactical bases and Continental United States (CONUS)/Outside the Continental United States(OCONUS) installations.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	-	4.043	-	4.043
Total Adjustments	-	-	4.043	-	4.043
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	-	-	4.043	-	4.043

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604785A: *INTEGRATED BASE DEFENSE*	PROJECT DS4: *INTEGRATED BASE DEFENSE*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
DS4: *INTEGRATED BASE DEFENSE*	-	-	4.043	-	4.043	4.476	3.855	3.897	3.962	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Mission Description:
Integrated Base Defense (IBD) provides integration of software and analytical capability to support the integration of systems in the field. IBD employs an enterprise approach to enable Integrated Base Defense capabilities across the operational spectrum by leveraging interoperability efforts in support of the Integrated Unit, Base, and Installation Protection (IUBIP) framework.

Justification:
FY 2013 Research Development Test and Evaluation funding in the amount of $4.043 million supports the management, integration, and collaboration of specified Department of Defense Integrated Base Defense efforts to provide enhanced situational awareness, increased efficiencies, and more effective responses for both tactical bases and Continental United States (CONUS)/Outside the Continental United States (OCONUS) installations.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: Integrated Base Defense Architecture Development	-	-	4.043
Description: Development of holistic IBD architectures leveraging DoD-approved protocol and processes to support interoperability of fielded and emerging IBD-related systems. ***FY 2013 Plans:*** Development of holistic IBD architectures leveraging DoD-approved protocol and processes to support interoperability of fielded and emerging IBD-related systems.			
Accomplishments/Planned Programs Subtotals	-	-	4.043

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

The Integrated Base Defense (IBD) acquisition strategy is to leverage existing IBD-related government organizations and to competitively award multiple contracts in support of IBD objectives for the development of holistic IBD architectures and products to support interoperability of fielded and emerging IBD-related systems.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0604785A: *INTEGRATED BASE DEFENSE*	PROJECT DS4: *INTEGRATED BASE DEFENSE*

E. Performance Metrics

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

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 ITEM NOMENCLATURE PE 0305205A: *Long Endurance Multi-Intelligence Vehicle (LEMV)*						
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	100.009	43.563	26.196	-	26.196	28.991	27.759	-	-	Continuing	Continuing
LE4: *LONG ENDURANCE MULTI-INTELLIGENCE VEHICLE (LEMV)*	100.009	43.563	26.196	-	26.196	28.991	27.759	-	-	Continuing	Continuing

Note

This program element funds Long Endurance Multi-Intelligence Vehicle (LEMV) efforts performed by the US Army Space and Missile Defense Command/Army Forces Strategic Command (USASMDC/ARSTRAT).

A. Mission Description and Budget Item Justification

This program element (PE) evaluates unmanned aerial vehicle (UAV) prototype systems that provide increased flight and/or mission duration for Intelligence, Surveillance, and Reconnaissance (ISR) and communications capabilities. These systems include the aerial platform integrated with existing and/or developmental payloads. Project LE4 is developing the Long Endurance Multi-intelligence Vehicle (LEMV), which is a hybrid airship prototype integrated with existing and developmental ISR and communications payloads to improve persistent surveillance and assured communications capabilities. Hybrid airship platform endurance is dependent on weather conditions and payload weight, but the LEMV prototype system is expected to increase endurance to 21 days on average assuming 20 knot winds.

The LEMV was funded in PE 0603308A Project 978 in FY10.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	93.000	42.892	25.915	-	25.915
Current President's Budget	100.009	43.563	26.196	-	26.196
Total Adjustments	7.009	0.671	0.281	-	0.281
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	9.999	-			
• SBIR/STTR Transfer	-2.450	-			
• Adjustments to Budget Years	-	-	0.281	-	0.281
• Other Adjustments 1	-0.540	0.671	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0305205A: *Long Endurance Multi-Intelligence Vehicle (LEMV)*	PROJECT LE4: *LONG ENDURANCE MULTI-INTELLIGENCE VEHICLE (LEMV)*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
LE4: *LONG ENDURANCE MULTI-INTELLIGENCE VEHICLE (LEMV)*	100.009	43.563	26.196	-	26.196	28.991	27.759	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Long Endurance Multi-Intelligence Vehicle (LEMV) is a technology demonstration effort to improve persistent surveillance and assured communications using a platform with significantly improved endurance over existing systems. The LEMV platform is a hybrid airship that achieves vertical lift from helium contained within its hull making it lighter-than-air and from traditional engine propulsion that produces thrust to provide lift. The LEMV prototype requirements are to achieve 21 day endurance in 20 knot continuous winds, carry 2500 pounds of multiple surveillance and communication payloads, operate at a maximum altitude of 20,000 feet Mean Sea Level, and provide 16 kilowatts (kW) of power to the payload. The LEMV system is recoverable and reusable. The LEMV system prototype and associated technologies will be evaluated during a Joint Military Utility Assessment (JMUA) in an operational environment upon completion of developmental testing.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: LEMV System Design, Development, and Sub-System Integration	100.009	20.963	-
Articles:	0	0	
Description: This effort develops a hybrid airship prototype integrated with payloads, ground control stations, and support equipment.			
FY 2011 Accomplishments: Completed system design through critical design review; completed fabrication of hybrid airship, to include hull, air vehicle systems, propulsion systems, mission payload modules, and rigid structures; obtained and integrated sensor and communications payloads; completed development of data processing software; and completed fabrication of ground control stations.			
FY 2012 Plans: Complete fabrication of support equipment; and integrate all major subsystems.			
Title: Developmental Testing and Certification	-	9.900	-
Articles:		0	
Description: This effort conducts developmental testing, information assurance accreditation, and airworthiness certifications.			
FY 2012 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0305205A: *Long Endurance Multi-Intelligence Vehicle (LEMV)*	PROJECT LE4: *LONG ENDURANCE MULTI-INTELLIGENCE VEHICLE (LEMV)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Complete interoperability certification; continue to monitor information assurance accreditation baseline; and complete developmental testing, to include flight tests and endurance demonstration.			
Title: Joint Military Utility Assessment (JMUA)	-	12.700	26.196
Articles:		0	
Description: This effort prepares and conducts the JMUA, to include training and transportation to the JMUA location.			
FY 2012 Plans: Will transport LEMV system to JMUA location; will complete training for JMUA personnel; will begin phased JMUA activities; and will provide initial JMUA report and recommended Tactics, Techniques, and Procedures. Provide technical support of Hardware/ Software (HW/SW) and Engineering Change Proposals (ECPs).			
FY 2013 Plans: Will continue to conduct phased JMUA activities to develop Tactics, Techniques and Procedures while refining Concept of Operations (CONOPS). Provide technical support of HW/SW and ECPs.			
Accomplishments/Planned Programs Subtotals	100.009	43.563	26.196

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Army received approval to acquire the LEMV under an Other Transaction Authority (OTA). Extensive market research determined that this hybrid airship has never been manufactured as a full-scale functioning system and critical hybrid airship technology at the system and subsystem level is mainly available from non-traditional Department of Defense contractors. An OTA agreement was preferred in order to gain access to critical technology within the Non-Traditional industrial community in this area and to promote competition. The OTA Agreement was competitively awarded using a competitive Request for Proposal process. A Joint Military Utility Assessment (JMUA) will be conducted in theatre following the system development and transport. A Material Development Decision (MDD) is expected 90-180 days after completion of the JMUA Phase 1 (the first 2 months of the overall JMUA time period).

E. Performance Metrics

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0305205A: *Long Endurance Multi-Intelligence Vehicle (LEMV)*	PROJECT LE4: *LONG ENDURANCE MULTI-INTELLIGENCE VEHICLE (LEMV)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Various	Various:various	-	3.892		1.200		-		1.200	Continuing	Continuing	0.000
		Subtotal	-	3.892		1.200		-		1.200			0.000

Remarks

Effective FY2011, funding for the Long Endurance Multi-Intelligence Vehicle (LEMV) was moved from Program Element (PE) 0603308A to 0305205A.

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Design, development, and sub-system integration	C/CPFF	Various:Various	57.009	15.071		-		-		-	Continuing	Continuing	Continuing
Sub-system risk reduction, trade studies & competitive agreement award	C/CPFF	Various:Various	5.000	-		-		-		-	Continuing	Continuing	Continuing
Developmental/Operational testing	C/CPFF	Various:Various	30.000	7.500		-		-		-	Continuing	Continuing	Continuing
Military Utility Assessment	C/CPFF	Various:Various	-	12.700		23.996		-		23.996	Continuing	Continuing	0.000
		Subtotal	92.009	35.271		23.996		-		23.996			

Remarks

Awarded Other Transactional Agreement (OTA) to Northrop Grumman on 14 June 2010. Executed option to build first airship.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government and SETA Support	Various	Various:various	8.000	2.000		1.000		-		1.000	Continuing	Continuing	Continuing
		Subtotal	8.000	2.000		1.000		-		1.000			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0305205A: *Long Endurance Multi-Intelligence Vehicle (LEMV)*	PROJECT LE4: *LONG ENDURANCE MULTI-INTELLIGENCE VEHICLE (LEMV)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	Various	Various:Various	-	2.400		-		-		-	Continuing	Continuing	0.000
		Subtotal	-	2.400		-		-		-			0.000

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	100.009	43.563		26.196		-		26.196			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0305205A: *Long Endurance Multi-Intelligence Vehicle (LEMV)*	**PROJECT** LE4: *LONG ENDURANCE MULTI-INTELLIGENCE VEHICLE (LEMV)*

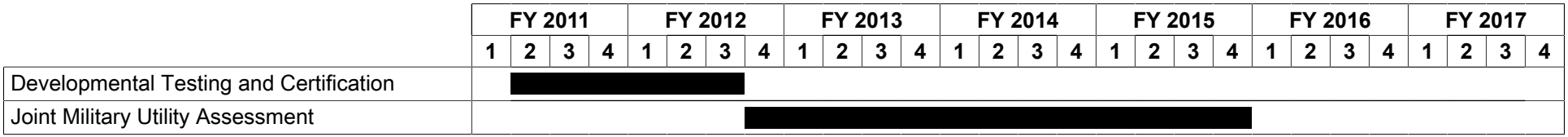

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0305205A: *Long Endurance Multi-Intelligence Vehicle (LEMV)*	**PROJECT** LE4: *LONG ENDURANCE MULTI-INTELLIGENCE VEHICLE (LEMV)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Developmental Testing and Certification	2	2011	3	2012
Joint Military Utility Assessment	4	2012	4	2015