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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Army	Date: February 2015
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Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
2040: <i>Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	PE 0603747A / <i>Soldier Support and Survivability</i>											
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	11.513	8.997	6.258	1.500	7.758	13.528	13.211	11.000	11.178	Continuing	Continuing
610: <i>Food Adv Development</i>	-	5.013	3.480	0.021	-	0.021	5.598	6.803	5.043	4.713	Continuing	Continuing
C08: <i>Rapid Equipping Force</i>	-	6.500	5.517	5.957	1.500	7.457	5.956	5.956	5.957	5.956	Continuing	Continuing
EL1: <i>Army Field Feeding Programs</i>	-	-	-	0.280	-	0.280	1.974	0.452	-	0.509	-	3.215

Note

Note: FY 2013 Previous President's Budget (FY 2014) amount shown in B. Program Change Summary is an electronic error and should be \$10,073.

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.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	11.685	9.602	10.582	-	10.582
Current President's Budget	11.513	8.997	6.258	1.500	7.758
Total Adjustments	-0.172	-0.605	-4.324	1.500	-2.824
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-0.172	-0.605	-4.324	1.500	-2.824

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability				Project (Number/Name) 610 / Food Adv Development			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
610: Food Adv Development	-	5.013	3.480	0.021	-	0.021	5.598	6.803	5.043	4.713	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)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Fielded Individual Ration Improvement Project (FIRIP)								0.862	0.600	-	-	-
Description: Continuous product improvement project for the Meal, Ready to Eat (MRE)												
FY 2014 Accomplishments: Continued to conduct in-house product development of food components and identify suitable Commercial Off The Shelf/Non-Developmental Item (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. Conducted pilot scale in-house production to support engineering design, technology insertion, and commercial producibility. Developed, integrated and validated state-of-the-art science and technology, food processing and primary/secondary packaging innovations into individual ration platforms to increase operational effectiveness. Optimized food component processing and packaging to introduce targeted items/capabilities into individual ration platforms for enhanced acceptability, nutrition and performance. Transitioned to 6.5 for testing.												
FY 2015 Plans:												

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Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability	Project (Number/Name) 610 / Food Adv Development				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Continue to conduct in-house product development of food components and identify suitable COTS/NDI candidate items for fielded individual operational rations (e.g. MRE™ 2018 date of pack) 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) Description: Continuous product improvement of special purpose rations by the insertion of new technologies in nutrition, processing and packaging. FY 2014 Accomplishments: Continued to identify COTS/NDI components for the Meal, Cold Weather/Long Range Patrol and First Strike Ration (FSR) to enhance acceptability, variety, consumption and nutritional value of combat rations. Identified new components based upon user feedback, focus groups, emerging products and technologies and user requirements. Conducted accelerated and long term storage studies on candidate components. Worked with industry partners to facilitate producibility and technology transition. Transitioned to 6.5 for Warfighter testing. FY 2015 Plans: Based on user feedback, focus groups, emerging products and technologies and user requirements, identify COTS/NDI components for the Meal, Cold Weather/Long Range Patrol, First Strike Ration and Modular Operational Ration Enhancement to enhance acceptability, variety, consumption and nutritional value of scenario-specific combat rations. Conduct accelerated and long term storage studies on candidate components. Work with industry partners to facilitate producibility and technology transition.		0.413	0.130	-	-	-
Title: Fielded Group Ration Improvement Project (FGRIP) 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 2014 Accomplishments:		0.814	0.208	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Continued 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). Identified COTS/NDIs and/or developed new food components in-house, conducted in-house testing, down-selected items and developed test menus for Warfighter evaluation. Developed, integrated and validated 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. Transitioned to 6.5 for Warfighter testing. FY 2015 Plans: Continue efforts to update/improve components, menus and packaging to increase consumption and overall nutritional intake of the family of UGRs for UGR-A (FY17 menus), B, M, E and H&S (2016 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: US Navy Standard Core Menu (NSCM) Continuous Product Improvement Project 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. FY 2014 Accomplishments: Continued to identify and validate COTS and NDI candidate enhancements to the NSCM. Provided 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. Transitioned product summaries and results/recommendations to Naval Supply Systems Command (NAVSUP) for adoption and procurement. FY 2015 Plans: Continue to identify and validate COTS/NDI candidate enhancement 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 NAVSUP for adoption and procurement.		0.220	0.160	-	-	-
Title: Quality Kinetics/Rapid Fielding of Ration Components		0.100	-	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Description: Confirm or optimize current accelerated storage protocols. Validate a predictive model for food degradation. FY 2014 Accomplishments: Transitioned and implemented quantitative kinetics models utilizing analytical markers (fat oxidation calorimetry, etc) to 6.4 Assault/Special Purpose Ration Improvement Program (ASPIP) and Fielded Individual Ration Improvement Program (FIRIP). Integrated optimized quality kinetics models into current sensory evaluation system and adjusted and optimized storage protocols and conditions using analytical testing/temperature kinetics and defined and recommended guidelines for conduction accelerated storage studies equivalent to Military storage requirements. Streamlined and enhanced evaluation process for identified new ration components (entrees, sides, snacks, bakery items) that fall within guidelines specified by the quality kinetics model, accelerated rapid fielding of specific ration component, decreased/minimized engineering support cases for quality related issues, and enhanced development efficiency. Modified and transitioned technical data to Defense Logistics Agency - Troop Support.						
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 2014 Accomplishments: Determined optimal barrier structure and scale-up to pilot-scale production of prototype samples. Evaluated prototype packaging system for barrier and mechanical properties, and shelf life and rough handling. FY 2015 Plans: Deliver prototype entrée and non-retort MRE pouches along with performance documentation/specifications and cost analysis. Present coating technologies to milestone decision authority, Joint Service Operational Ration Forum (JSORF) and the ration supply community for use as an alternative non-foil ration packaging material.		0.140	0.080	-	-	-
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	-	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
key performance parameters of known thermally processed ration components. Generate draft technical requirements and/or revised documents for novel processed ration components.						
FY 2014 Accomplishments: Developed operational concept for integration of specific novel processed ration components into individual (as well as group and assault/special purpose) ration platforms. Established baselines for nutrition retention, producibility and package utility. Evaluated baselines for novel processed components against key performance parameters of known thermally processed ration components.						
Title: Containerized Ice Making System 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 2014 Accomplishments: Received procured prototype(s) for production quality testing (PQT) at the Aberdeen Test Center. Used multiple prototypes and modified commercially available equipment to validate the current state of the technology to the user community. FY 2015 Plans: Conduct evaluation of integrated technologies in a realistic operating environment to include: modified commercial items, developmental prototypes and commercial industry technology demonstrators. Mitigate identified weaknesses in transportable ice bagging technologies with development of ruggedized, reliable system.		0.321	0.650	-	-	-
Title: Co-Extruded Alternate Nutrient System (CANS) 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 2014 Accomplishments:		0.157	-	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Finalized FDA approval of selected performance optimizers. Coordinated remaining field testing with Individual Ration program. Validated manufacturing base and long term shelf life studies in coordination with production base. Generated draft technical 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 2014 Accomplishments: Continued producibility studies. Field testing to document Warfighter approval. Granted approval Joint Services Operational Rations Forum, procurement documents were modified/produced and provided to DLA for inclusion in the MRE™, UGR and/or FSR.		0.100	-	-	-	-
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 2014 Accomplishments: Continued development, integration and test of JP-8 powered burner and appliance interfaces. Developed clear platform requirements for Battlefield Kitchen and continued testing modular appliances for legacy system compatibility. FY 2015 Plans: Perform comprehensive evaluation of appliances integrated with newly developed heating technologies. Verify performance and compatibility with multiple platforms and in dismantled operation. Complete evaluation of appliances mounted on dedicated kitchen platform to prove out component and subsystem maturity.		0.388	0.360	-	-	-
Title: Permeability Modeling of Advanced Packaging Systems (PMAPS)		0.140	-	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)						
		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Description: Expand upon the current film based permeability prediction model to allow for permeability prediction of packaging systems. Determine the total barrier effect of combined packaging technologies developed under research programs.						
FY 2014 Accomplishments: Conducted pilot-scale production runs to produce packaging films for conversion into pouches and filled with selected food items. Conducted storage study to include sensory and analytical testing such as water activity and headspace analysis to validate model. A validation report was prepared at the end of the storage study.						
Title: Packaging Optimization with Polymeric Microspheres (POPM)		0.100	-	-	-	-
Description: Develop production base for polymeric films containing expandable microspheres for use in reduced-weight, high-performance ration packaging applications which will provide reduced density, enhanced thermal properties and cost savings.						
FY 2014 Accomplishments: Collaboration did occur with industrial partners (material suppliers and converters) to produce material at the pilot-scale level, and to fabricate Flameless Ration Heater pouches and Meal Ready-to-Eat entree bags. Collaboration also occurred between technical teams, DLA-Troop Support, and industrial partners. Cost validation analyses were performed to confirm affordability.						
Title: Navy Food Service Analysis Tool		0.340	0.253	-	-	-
Description: Develop a software analysis tool for Navy Foodservice that performs the following tasks: Automatically calculate all storage space factors and requirements for naval vessels based off the specific Navy Standard Core Menu (NSCM), crew size, Naval Ship's Technical Manual 096, Weights and Stability, Naval Vessel Requirements Food Service Facility Design Manual, Build Specifications 671, 672, and Type Commander established endurance levels.						
FY 2014 Accomplishments: Developed automated subsistence inventory management, tracking and direct routing for all storage areas with mobile scanning technology capability. Conducted in-house tests & evaluation. Coordinated software Navy Advanced Individual Training (AIT) approval/certification						
FY 2015 Plans:						

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Coordinate and conduct shipboard user evaluations with the Navy; complete software Navy AIT approval/certification; transition information to Navy.						
Title: Block Upgrades and Operational Improvements for Expeditionary Field Feeding Equipment. Description: Eliminate the sole sourcing of tray ration heater component parts. Reduce overall water consumption through the use of non-immersive cooking technologies and more efficient ware-washing equipment. Increase Kitchen flexibility through appliance upgrades. To reduce the overall fuel consumption of Expeditionary Field Feeding Equipment by minimizing the production of and making use of the waste heat produced through JP-8 combustion. FY 2015 Plans: Enhance the ability of the USMC to prepare all operational rations during expeditionary operations. Identify, procure, and evaluate candidate burners for tray ration reset; develop kit and procedures for install in Tray Ration Heater (TRH); conduct technical evaluation for heat exchangers in Efficiency Field Kitchen (EFK).		-	0.340	-	-	-
Title: Joint Inter-service Field Feeding Burner Description: Develop a Joint-Service, government owned JP-8 fuel fired burner for field kitchen appliances. Government will control configuration, procurement, and support decisions. Establish parts list using widely supportable supply chain in field operations. FY 2014 Accomplishments: Built Design Validation (DV) units using a supportable, commercial bill of materials. Tested in a high fidelity, realistic operating environment and conducted supportability validation. Prepared Technical Data Package. FY 2015 Plans: Use the burner baseline developed in this program to qualify acceptable appliance designs that interface properly with the burner. Integrate tech data package into appliance configuration control documentation.		0.251	0.143	-	-	-
Title: Defense Logistics Agency (DLA) Description: Support management of the Department of Defense (DoD) Electronic Document Access (EDA) and Wide Area Workflow (WAWF) programs. FY 2014 Accomplishments:		0.564	0.556	0.021	-	0.021

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<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>																																																									
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D. Acquisition Strategy Project development will transition to Engineering & Manufacturing Development and production.																																																																				
E. Performance Metrics N/A																																																																				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
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Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Combat Feeding Program Management	Various	RDECOM, Natick, MA : Natick, MA	4.912	0.516	Apr 2014	0.357		-		-		-	Continuing	Continuing	Continuing
SBIR+STTR	TBD	Various : Various	0.117	-		-		-		-		-	-	0.117	-
DLA Bill Pay	TBD	Various : Various	0.000	0.564		0.556		0.021		-		0.021	-	1.141	-
Subtotal			5.029	1.080		0.913		0.021		-		0.021	-	-	-
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Service Food/Combat Feeding Equipment	Various	RDECOM, Natick, MA : Natick, MA	35.789	1.592	Mar 2014	1.028		-		-		-	Continuing	Continuing	Continuing
Joint Service Food/Combat Feeding Equipment	Various	Various : Various	23.930	1.706	Mar 2014	1.106		-		-		-	Continuing	Continuing	Continuing
Subtotal			59.719	3.298		2.134		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Service Food/Combat Feeding Equipment	Various	DTC/AEC : National Capitol Region	9.646	0.635	May 2014	0.433		-		-		-	Continuing	Continuing	Continuing
Subtotal			9.646	0.635		0.433		-		-		-	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			74.394	5.013		3.480		0.021		-		0.021	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army																Date: February 2015												
Appropriation/Budget Activity 2040 / 4								R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability								Project (Number/Name) 610 / Food Adv Development												
Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
Evaluate MRE, FSR, MCW/LRP and MORE improvements																												
Evaluate UGR Enhancements improvements																												
Transition First Strike Ration (FSR) components to EMD																												
Transition advanced development of individual and group ration compone																												
Provide NAVSUP w/CPI, evaluations and menu development to support																												
Conduct DV on JP8 Fired Commercial Appliances																												
USMC Field Kitchen Modernization Effort																												
Barrier Coating prototype Evaluation and Field Test																												
Establish baseline, evaluate and transition novel processed ration comp																												
Transition of Advanced Appliances for Field Kitchens- DV of Prototypes																												
Field evaluation of Alternative Polymer Processing Technology (APPT)																												
(1) Modify Production Change Request (PCR) of APPT and Transition to																												
(2) Draft SOW and award contract for Navy Food Service Analysis Tool																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army																Date: February 2015												
Appropriation/Budget Activity 2040 / 4								R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability								Project (Number/Name) 610 / Food Adv Development												
Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
Conduct in-house tests & evaluation for Navy Food Service Analysis Tool																												
Identify candidate burner technology for potential integration into comm																												
Identify, procure, and evaluate candidate burners for tray ration heater re																												
Technical evaluation for heat exchangers in EFK; procurement of nesting																												
Test Joint Inter-Service Burner in a high fidelity, realistic operating environ																												
(1) Develop Engineering Change Proposal for Diesel/Electric TriCon Refe																												
Build standalone capability for Diesel/Electric powered TRCS																												
Award contract to integrate improved refer unit with MTRCS platform																												
Coordinate packaging specifications with ration assemblers/producers																												
Conduct technology demonstration of Ice Making Systems																												
Develop performance specs based on DV of Ice Making Systems																												
Dem/Val JP8 burners for Enhanced Tray Ration Heater System-USMC																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603747A / <i>Soldier Support and Survivability</i>	Project (Number/Name) 610 / <i>Food Adv Development</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Evaluate MRE, FSR, MCW/LRP and MORE improvements	1	2009	4	2015
Evaluate UGR Enhancements improvements	1	2009	4	2015
Transition First Strike Ration (FSR) components to EMD	1	2009	4	2014
Transition advanced development of individual and group ration components to EMD	1	2009	4	2015
Provide NAVSUP w/CPI, evaluations and menu development to support NSCM upgrades	1	2010	4	2015
Conduct DV on JP8 Fired Commercial Appliances	2	2014	4	2014
USMC Field Kitchen Modernization Effort	1	2014	4	2015
Barrier Coating prototype Evaluation and Field Test	1	2012	4	2014
Establish baseline, evaluate and transition novel processed ration components	1	2013	4	2014
Transition of Advanced Appliances for Field Kitchens- DV of Prototypes	3	2013	4	2015
Field evaluation of Alternative Polymer Processing Technology (APPT)	1	2013	2	2014
Modify Production Change Request (PCR) of APPT and Transition to DLA-TS	4	2014	4	2014
Draft SOW and award contract for Navy Food Service Analysis Tool	3	2014	3	2014
Conduct in-house tests & evaluation for Navy Food Service Analysis Tool	4	2015	4	2015
Identify candidate burner technology for potential integration into comm	1	2015	2	2015
Identify, procure, and evaluate candidate burners for tray ration heater reset	1	2015	2	2015
Technical evaluation for heat exchangers in EFK; procurement of nesting sinks	3	2015	4	2015
Test Joint Inter-Service Burner in a high fidelity, realistic operating environm	3	2014	3	2014
Develop Engineering Change Proposal for Diesel/Electric TriCon Refer System	4	2017	4	2017
Build standalone capability for Diesel/Electric powered TRCS	1	2017	3	2017
Award contract to integrate improved refer unit with MTRCS platform	3	2015	4	2015

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015		
Appropriation/Budget Activity 2040 / 4		R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability		Project (Number/Name) 610 / Food Adv Development	
		Start		End	
Events		Quarter	Year	Quarter	Year
Coordinate packaging specifications with ration assemblers/producers		3	2014	2	2015
Conduct technology demonstration of Ice Making Systems		1	2014	4	2015
Develop performance specs based on DV of Ice Making Systems		1	2015	3	2015
Dem/Val JP8 burners for Enhanced Tray Ration Heater System-USMC		3	2017	2	2018

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability				Project (Number/Name) C08 / Rapid Equipping Force			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
C08: Rapid Equipping Force	-	6.500	5.517	5.957	1.500	7.457	5.956	5.956	5.957	5.956	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Equipment mix and configuration may change based on changes in operational environment and circumstances.

A. Mission Description and Budget Item Justification

The Rapid Equipping Force (REF) supports Combatant Command (COCOM)/Army Service Component Command (ASCC) based on emerging rapid equipment requirements. The REF is an enduring organization (Base funded) per Headquarters, Department of the Army, memo, SUBJECT: Implementation Plan for Stabilization of the Rapid Equipping Force (REF), signed by the Under Secretary of the Army: Joseph W. Westphal, dated 30 January 2014.

The REF harnesses current and emerging technologies to provide rapid solutions to U.S. Army Forces employed globally. The REF combines and integrates functions that cross several Army staff elements and ASCCs to accelerate materiel solutions and technology insertion to U.S. Army Forces employed globally. The REF is the Army's quick reaction capability with the ability to develop, prototype, acquire, integrate and sustain Commercial-Off-The-Shelf (COTS), Government Off-The-Shelf (GOTS) and Non-Developmental Item (NDI) solutions to meet urgent combat requirements for forces employed globally. It develops and inserts selected future force technologies, capabilities, and surrogate materiel solutions into deployed, deploying, select prepared to deploy, and transformational forces for operational evaluation, assessment, and evolutionary development. The REF plans and executes assessments and studies of Army practices and issues concerning operational needs, desired future force capabilities, and relevant Army business practices to provide feedback to Army Senior Leaders.

The REF bridges the gap between the traditional acquisition process and immediate equipping needs. The REF pursues tangible solutions that can be equipped rapidly with a goal of 180 days. The 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 coordinates in theater work with the ASCC of the COCOMs to understand their urgent needs, for which the REF acquisition capability may identify, procure, deliver, and sustain solutions to the deployed units. This fiscal flexibility is significant in that it permits the REF to allocate funds against emerging threats and requirements in the year of fiscal execution.

The REF works directly with Operational Commanders at all levels, but focuses on Brigade level and below to find solutions to identified capability gaps. 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.

In accordance with Ms. Heidi Shyu (Army Acquisition Executive) Memorandum, Subject: Acquisition Decision Memorandum (ADM) to Change the Milestone Decision Authority (MDA) for the Rapid Equipping Force (REF) Program, dated May 28, 2014, the overarching goal of institutionalizing the acquisition authorities within the REF is to preserve the autonomy of action that has proven successful through the past decade of war. Program Executive Office (PEO) Soldier has been assigned as the MDA

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603747A / <i>Soldier Support and Survivability</i>	Project (Number/Name) C08 / <i>Rapid Equipping Force</i>
to provide proper acquisition oversight while enhancing visibility of these efforts. The MDA will ensure flexibility and speed focused on the needs of Soldiers serviced by the dedicated REF Program Management Office (PMO). A formal reporting scheme leveraging existing venues, (e.g., Program Status Reviews (PSR) Acquisition Category (ACAT) III Reporting, will ensure ASA (ALT) visibility, oversight, and direction. The REF key tasks are: - Partner with the Asymmetric Warfare Group (AWG) and the ASCCs to be responsive to tactical unit commanders in a global operating environment. - Bridge specific Operational Needs Statement (ONS)/Joint Urgent Operational Needs Statement (JUONS)/Joint Emergent Operational Needs Statement (JEONS) gaps to meet urgent needs. - Develop materiel solutions to counter emerging global asymmetric threats with reduced Soldiers in the operational environment. - Ensure training, transportation, 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 the appropriate Army process for long-term sustainment. - 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 current REF Integrated Priority List (RIPL) consists of the REF top priorities based on requirements received from deployed units and drives all REF efforts. 1. Dismounted Improvised Explosive Device (IED) Defeat 2. Small Combat Outpost (COP)/Patrol Base (PB) Sustainment 3. Small Combat Outpost (COP)/Patrol Base (PB) Force Protection 4. Dismounted Operations Support 5. Intelligence, Surveillance, and Reconnaissance (ISR) Shortfalls in Environmentally Inhospitable Operational Environments (OEs) 6. Dismounted Blue Force Tracking and Mission Command 7. Other The Army anticipates the REF working similar priorities in FY16 and beyond. The REF average cost per requirement is ~\$1.1 based on historical data. The REF FY16 RDT&E request \$5.957million (Base) and \$1.500 million (OCO) is for system integration, Testing and Evaluation to support project requirements. The REF requires RDT&E funds to test technologies in order to ensure suitability and safety before equipping the Soldier – any modified COTS/GOTS/NDI items have to be tested. RDT&E integrates, modifies, and equips urgent materiel capabilities to units in support of Joint and Army Forces Commanders to enhance the combat effectiveness of the operating force. The 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)		

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015				
Appropriation/Budget Activity 2040 / 4		R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability	Project (Number/Name) C08 / Rapid Equipping Force				
systems 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 deployed U.S. Army Forces problems. The REF requires RDT&E funds to integrate several different COTS/GOTS/NDI technologies into one capability that solves the tougher and more complex problems. The REF uses RDT&E funds to conduct demonstrations and tests to validate technology solutions. The 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. The 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 Soldier in the solution development process.							
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Rapid Equipping Force			6.500	5.517	5.957	1.500	7.457
Description: Funding is provided for the following effort.							
FY 2014 Accomplishments: The demand for REF 10-liner requirements has levels based on the increased tempo of transitioning brigades in Operation Enduring Freedom (OEF) with nine (9) month deployments; the expansion of brigades' operational environments (OEs) that required smaller units to operate in more isolated areas; the expansion of Army Special Operation Forces Village Stability Operations (VSO) efforts; and the introduction of Security Force Advisory Assistance Teams (SFAATs) – a new force structure and role in OEF. At the end of FY14, the REF had 554 total requirements -494 were OCO requirements. For FY15 the REF projected 600 requirements (540 Base, 60 OCO). As of 31 Dec 2014, the REF had 180 total requirements – 167 were OCO requirements.							
FY 2015 Plans: The REF mission expands to perform Direct Support (DS) to globally deployed Soldiers, ASCCs of the Combatant Commands, and regionally aligned Brigade Combat Teams (BCTs). During the same period, the REF expects to see an increase in requirements submitted by Army Special Operations Forces (SOF) in other areas of the world, as well as, from brigades employed in more global roles, such as the regionally aligned BCTs, and their logistical support elements. REF's Expeditionary Labs are deployed to provide engineer support directly to Battalion and Brigade Forward Operating Bases/Combat Outposts/Patrol Bases and work side-by-side with Soldiers as they execute their missions. Engineers connect directly to Army, DoD and National Labs to design and fabricate potential solutions while including the users' immediate feedback. The REF also expects to play a much more deliberate role in providing support to the Army's Global Response Force as they prepare for a wider range of response missions.							
FY 2016 Base Plans: The REF partners with forces the ASCCs and Army SOF community to perform DS to globally deployed Soldiers and regionally aligned BCTs. The REF anticipates an increased need for flexibility to develop technological							

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015			
Appropriation/Budget Activity 2040 / 4		R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability		Project (Number/Name) C08 / Rapid Equipping Force		
B. Accomplishments/Planned Programs (\$ in Millions)						
		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
solutions supporting the reduced numbers of Soldiers operating globally in order to fill force protection gaps in the face of a smaller and more lethal terrorism threat. The REF expects to increase our engagement with the ASCCs in order to address capability gaps generated by geographical and environmental constraints and improve our understanding of evolving threats and operating conditions within the respective ASCC areas of operations. The REF's Expeditionary Lab is deployed to provide engineer support directly to Soldiers as they execute their missions in austere environments within a smaller logistical footprint. Engineers connect directly to Army, Department of Defense (DoD), and National Labs to conduct design and fabrication while including the user's immediate feedback. The REF expects to insert emerging technologies into ASCC level exercises in order to validate concept of operations (CONOPS) and Tactics, Techniques and Procedures (TTP). The REF also expects to play a much more deliberate role in providing support to the Global Response Force as they prepare for a wider range of response missions. We anticipate increased coordination with various Army technology demonstrations and Joint Capabilities Technology Demonstrations in order to leverage developed residual technologies to rapidly address indentified critical capability gaps and gain immediate feedback through limited user evaluations. In accordance with REF's participation in the Office of Secretary of Defense (OSD) led quick reaction capability effort, the Army determined the REF would provide the Army's warm base capability with 71 requirements in FY16 and beyond. For FY16 the REF projects 71 requirements in the following REF Integrated Priority List (RIPL). 1. Dismounted Improvised Explosive Device (IED) Defeat (\$220K) 2. Small Combat Outpost (COP)/Patrol Base (PB) Sustainment (\$110K) 3. Small Combat Outpost (COP)/Patrol Base (PB) Force Protection (\$716K) 4. Dismounted Operations Support (\$1,845K) 5. Intelligence, Surveillance, and Reconnaissance (ISR) Shortfalls in Environmentally Inhospitable Operational Environments (OEs) (\$248K) 6. Dismounted Blue Force Tracking and Mission Command (\$55K) 7. Other (\$1,763K) The REF anticipates ATEC testing and evaluation cost of \$1.00M. The REF requires RDT&E funds to test technologies in order to ensure suitability and safety before equipping the Soldier – any modified COTS/GOTS/NDI items has to be tested. FY 2016 OCO Plans:						

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015		
Appropriation/Budget Activity 2040 / 4		R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability		Project (Number/Name) C08 / Rapid Equipping Force	

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
For FY16 the REF projects 71 requirements in the following REF Integrated Priority List (RIPL).					
1. Dismounted Improvised Explosive Device (IED) Defeat (\$44K)					
2. Small Combat Outpost (COP)/Patrol Base (PB) Sustainment (\$22K)					
3. Small Combat Outpost (COP)/Patrol Base (PB) Force Protection (\$144K)					
4. Dismounted Operations Support (\$373K)					
5. Intelligence, Surveillance, and Reconnaissance (ISR) Shortfalls in Environmentally Inhospitable Operational Environments (OEs) (\$50K)					
6. Dismounted Blue Force Tracking and Mission Command (\$11K)					
7. Other (\$356K)					
The REF anticipates ATEC testing and evaluation cost of \$.500M. The REF requires RDT&E funds to test technologies in order to ensure suitability and safety before equipping the Soldier – any modified COTS/GOTS/NDI items has to be tested.					
Accomplishments/Planned Programs Subtotals	6.500	5.517	5.957	1.500	7.457

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

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• M08101: Other Procurement Army	25.000	22.380	17.937	8.500	26.437	4.286	4.611	4.257	4.460	Continuing	Continuing
• 121018000: Operations and Maintenance, Army	103.451	94.358	20.626	-	20.626	20.687	20.826	20.975	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

The REF harnesses current and emerging technologies to provide rapid solutions to the urgently required capabilities of U.S. Army Forces employed globally. The REF focus is on rapidly placing capabilities into Soldiers' hands. This mission is accomplished in one of two ways: rapidly adapting COTS/GOTS/NDI 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 are provided for every capability until it is transitioned to an approved acquisition program or terminated through an approved Army process. Operational assessments are conducted to provide feedback in support of Army equipping and fielding decisions. REF capabilities routinely serve to as a bridge to specific ONS, JUONS, and JEONS gaps to meet urgent operational requirements.

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability	Project (Number/Name) C08 / Rapid Equipping Force
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability				Project (Number/Name) C08 / Rapid Equipping Force					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Dismounted Improvised Explosive Device (IED) Defeat	C/FFP	Various : Various	1.916	0.444		0.213		0.220		0.044		0.264	Continuing	Continuing	Continuing
Dismounted Operations Support	C/FFP	Various : Various	2.055	1.113		1.432		1.845		0.373		2.218	Continuing	Continuing	Continuing
Intelligence, Surveillance, and Reconnaissance (ISR) Shortfalls in Environmentally Inhospitable OEs	C/FFP	Various : Various	3.808	0.907		0.554		0.248		0.050		0.298	Continuing	Continuing	Continuing
Small Combat Outpost (COP) / Patrol Base (PB) Force Protection and Sustainment	C/FFP	Various : Various	3.738	-		-		-		-		-	Continuing	Continuing	Continuing
Other-REF RIPL Priorities (5-10)	C/FFP	Various : Various	8.778	-		-		-		-		-	Continuing	Continuing	-
Other	C/FFP	Various : Various	0.000	0.796		1.176		1.763		0.356		2.119	-	4.091	-
Base: Various Projects-Protect the Force in Counter Insurgency	C/FFP	Various : Various	11.841	-		-		-		-		-	-	11.841	-
Small Combat Outpost (COP)/Patrol Base (PB) Sustainment	C/FFP	Various : Various	0.000	0.648		0.384		0.110		0.022		0.132	-	1.164	-
Base: Various Projects-Enhance Intelligence Surveillance Recon	C/FFP	Various : Various	9.009	-		-		-		-		-	-	9.009	-
Small Combat Outpost (COP)/Patrol Base (PB) Force Protection	C/FFP	Various : Various	0.000	0.870		0.605		0.716		0.144		0.860	-	2.335	-
Dismounted Blue Force Tracking and Mission Command	C/FFP	Various : Various	0.000	0.222		0.153		0.055		0.011		0.066	-	0.441	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability						Project (Number/Name) C08 / Rapid Equipping Force			
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Base: Various Projects-Logistics/Medical in Counterinsurgency Ops	C/FFP	Various : Various	1.639	-		-		-		-		-	-	1.639	-
Base: Various Projects-Timeliness of Analysis and Information Dissemination	C/FFP	Various : Various	6.961	-		-		-		-		-	-	6.961	-
Congressional Add-Squad Mission Support System (SMSS)	C/FFP	Various : Various	1.600	-		-		-		-		-	-	1.600	-
SSTR/Economic Assumptions/FFRDC and SBIR	C/FFP	Various : Various	1.090	-		-		-		-		-	-	1.090	-
OCO: Rapid Equipping Force	C/FFP	Various : Various	19.190	-		-		-		-		-	-	19.190	-
Subtotal			71.625	5.000		4.517		4.957		1.000		5.957	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ATEC (REF Integrated Priority List 1-10)	C/FFP	Various : Various	9.844	1.500		-		-		-		-	Continuing	Continuing	Continuing
ATEC (REF Integrated Priority List 1-7)	C/FFP	Various : Various	0.000	-		1.000		1.000		0.500		1.500	-	2.500	-
Subtotal			9.844	1.500		1.000		1.000		0.500		1.500	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			81.469	6.500		5.517		5.957		1.500		7.457	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army																Date: February 2015																					
Appropriation/Budget Activity 2040 / 4										R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability								Project (Number/Name) C08 / Rapid Equipping Force																			
Event Name										FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
										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
n/a																																					

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability	Project (Number/Name) C08 / Rapid Equipping Force

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
n/a	1	2016	4	2017

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability				Project (Number/Name) EL1 / Army Field Feeding Programs			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
EL1: Army Field Feeding Programs	-	-	-	0.280	-	0.280	1.974	0.452	-	0.509	-	3.215
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

2016 shall be the first funded year for the Army Field Feeding Programs Element.

A. Mission Description and Budget Item Justification

This project provides for the advanced component development and prototyping of Army 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 rapidly deployable field food service equipment in coordination with ration development efforts. Project conducts demonstration and validation of improved subsistence support items used to enhance soldier effectiveness and quality of life in the Army and the other military Services, as coordinated with the Department of Defense (DoD) Food Research, Development, Test, Evaluation and Engineering 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 the Army.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Battlefield Kitchen (BK) technology development effort	-	-	0.280	-	0.280
Description: Provide replacement of the obsolete Mobile Kitchen Trailer (MKT) system. The BK shall replace the MKT with a kitchen that provides fuel efficient, thermally controlled, closed combustion appliances within an environmentally controlled workspace. The BK shall provide rations for up to 300 Soldiers within 4 hours of setup. The BK provides refrigeration, running water and a heated serving line using the same off-road prime mover as the MKT as well as transportability by rail, sea, fixed and rotary wing aircraft.					
FY 2016 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army								Date: February 2015				
Appropriation/Budget Activity 2040 / 4				R-1 Program Element (Number/Name) PE 0603747A / <i>Soldier Support and Survivability</i>				Project (Number/Name) EL1 / <i>Army Field Feeding Programs</i>				
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Perform evaluation of appliances integrated with Jet Propellant 8 (JP-8) fired burners developed in the Science and Technology (S&T) phase as culmination of technology transfer agreement. Prepare Milestone B documentation.												
Accomplishments/Planned Programs Subtotals								-	-	0.280	-	0.280
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost	
• RDT&E 654713.548: <i>Military Subsistence System</i>	1.874	3.034	1.430	-	1.430	0.961	0.550	0.652	1.319	Continuing	Continuing	
• RDT&E 654713.EL2: <i>Army Field Feeding Equipment</i>	-	-	0.333	-	0.333	1.505	2.058	1.778	1.138	Continuing	Continuing	
• RDT&E 643747.610: <i>Food Adv Dev</i>	5.013	3.480	0.021	-	0.021	5.598	6.803	5.043	4.713	Continuing	Continuing	
• OPA M65806: <i>Assault Kitchen, Field Feeding</i>	0.423	4.889	3.632	-	3.632	5.167	4.660	4.165	4.605	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
Project development will transition to System Development & Demonstration and into production after thorough testing.												
E. Performance Metrics												
N/A												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army													Date: February 2015		
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603747A / <i>Soldier Support and Survivability</i>				Project (Number/Name) EL1 / <i>Army Field Feeding Programs</i>					

Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Support	Various	PM Force Sustainment : Natick, MA	0.000	-		-		0.150		-		0.150	-	0.150	-
Subtotal			0.000	-		-		0.150		-		0.150	-	0.150	-

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Battlefield Kitchen	Various	DTC/AEC PM-FSS, : Natick Ma	0.000	-		-		0.130	Oct 2015	-		0.130	Continuing	Continuing	-
Subtotal			0.000	-		-		0.130		-		0.130	-	-	-

			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	-		-		0.280		-		0.280	-	-	-

Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army																Date: February 2015																
Appropriation/Budget Activity 2040 / 4										R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability										Project (Number/Name) EL1 / Army Field Feeding Programs												
Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020							
	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				
Conduct advanced component development and demonstration for th BK																																
(1) Complete Milestone B and transition Battlefield Kitchen to EMD																																
Award advanced component development contract for DESERT																																
Conduct advanced component development and demonstration for DESE																																
(2) Complete Milestone B and transition DESERT to EMD																																

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603747A / <i>Soldier Support and Survivability</i>	Project (Number/Name) EL1 / <i>Army Field Feeding Programs</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Conduct advanced component development and demonstration for th BK	1	2016	4	2017
Complete Milestone B and transition Battlefield Kitchen to EMD	1	2017	1	2017
Award advanced component development contract for DESERT	1	2018	1	2018
Conduct advanced component development and demonstration for DESERT	2	2018	4	2018
Complete Milestone B and transition DESERT to EMD	1	2019	1	2019