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| Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army | Date: February 2018 |
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| Appropriation/Budget Activity | R-1 Program Element (Number/Name) | | | | | | | | | | | |
|--|---|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| 2040: Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P) | PE 0603747A / Soldier Support and Survivability | | | | | | | | | | | |
| COST (\$ in Millions) | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | Cost To Complete | Total Cost |
| Total Program Element | - | 13.607 | 13.157 | 8.746 | 3.000 | 11.746 | 7.402 | 8.640 | 9.036 | 9.235 | 0.000 | 72.823 |
| 610: Food Adv Development | - | 5.095 | 6.548 | 4.599 | - | 4.599 | 4.110 | 4.223 | 4.175 | 4.972 | 0.000 | 33.722 |
| C08: Rapid Equipping Force | - | 6.639 | 6.162 | 2.799 | 3.000 | 5.799 | 2.794 | 2.790 | 2.786 | 2.781 | 0.000 | 29.751 |
| EL1: Army Field Feeding Programs | - | 1.873 | 0.447 | 1.348 | - | 1.348 | 0.498 | 1.627 | 2.075 | 1.482 | 0.000 | 9.350 |

A. Mission Description and Budget Item Justification

This Program Element (PE) supports component development and prototyping for organizational equipment, improved individual clothing and equipment that enhance Soldier battlefield effectiveness, survivability, and sustainment. This PE 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 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 10.506 | 13.157 | 8.640 | - | 8.640 |
| Current President's Budget | 13.607 | 13.157 | 8.746 | 3.000 | 11.746 |
| Total Adjustments | 3.101 | 0.000 | 0.106 | 3.000 | 3.106 |
| • Congressional General Reductions | -0.006 | - | | | |
| • Congressional Directed Reductions | - | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | 3.500 | - | | | |
| • Congressional Directed Transfers | - | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | -0.393 | - | | | |
| • Adjustments to Budget Years | - | - | 0.106 | 3.000 | 3.106 |

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: C08: Rapid Equipping Force

Congressional Add: Congressional Add Row

| | FY 2017 | FY 2018 |
|--|----------------|----------------|
| | 3.500 | - |
| Congressional Add Subtotals for Project: C08 | 3.500 | - |
| Congressional Add Totals for all Projects | 3.500 | - |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army | | Date: February 2018 |
| Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P) | | R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability |
| <u>Change Summary Explanation</u> FY2019 OCO Increase of \$3.000M - Army Rapid Equipping Force OCO requirement. FY2017 OCO Increase of \$3.500M - Army Rapid Equipping Force OCO requirement. | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Army | | | | | | | | | | Date: February 2018 | | |
| 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 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | Cost To Complete | Total Cost |
| 610: Food Adv Development | - | 5.095 | 6.548 | 4.599 | - | 4.599 | 4.110 | 4.223 | 4.175 | 4.972 | 0.000 | 33.722 |
| 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 combat ration components/platforms and field feeding equipment designed to improve warfighter performance and reduce the logistics burden of subsistence support. Efforts funded in this Project support all four Services, the Special Operations Command, and the Defense Logistics Agency. The Army serves as the Executive Agent for this Department of Defense (DoD) program, with oversight and coordination provided by the DoD Combat Feeding Research and Engineering Board as required by DoD Directive (DoDD) 3235.02E. Centralized execution of the DoD Combat Feeding Research and Engineering Program (CFREP) with Joint Service review and approval eliminates unnecessary duplication of efforts across the Services and maximizes use of common materiel solutions. Prototypes validated within this effort transition to Program Element (PE) 0604713A/Project 548 for System Development and Demonstration. | | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Title: Fielded Individual Ration Improvement Project (FIRIP) | | | | | | | | 0.895 | 0.663 | - | - | - |
| Description: Continuous product improvement of project for the Meal, Ready to Eat (MRE) through the advanced development of novel nutrition, processing and packaging technologies to improve operational effectiveness and improve logistics. | | | | | | | | | | | | |
| FY 2018 Plans: Continue to conduct in-house product development of food components and identify suitable COTS/NDI candidate items for fielded individual operational rations (MRE 2021 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 operational testing. | | | | | | | | | | | | |
| FY 2018 to FY 2019 Increase/Decrease Statement: Effort as titled ends in FY 2018. | | | | | | | | | | | | |
| Title: Assault/Special Purpose Ration Improvement Project (ASPIP) | | | | | | | | 0.519 | 0.463 | - | - | - |

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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 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| <p>Description: Continuous product improvement of special purpose rations through the advanced development of novel nutrition, processing and packaging technologies to improve operational effectiveness and improve logistics. Special purpose rations include the Meal, Cold Weather/Long Range Patrol (MCW/LRP), First Strike Ration (FSR), and Modular Operational Ration Enhancement (MORE).</p> <p>FY 2018 Plans: Continue to identify COTS/NDI components for the MCW/LRP, FSR and/or MORE to enhance acceptability, variety, consumption and nutritional value of scenario-specific combat rations based on user feedback, focus groups, emerging products and technologies and user requirements. Conduct accelerated and long term storage studies on candidate components. Transition to 6.5 for operational testing.</p> <p>FY 2018 to FY 2019 Increase/Decrease Statement: Effort as titled ends in FY 2018.</p> | | | | | | |
| <p>Title: Fielded Group Ration Improvement Project (FGRIP)</p> <p>Description: Continuous product improvement project to update/improve group ration components, menus, and packaging by integrating state-of-the-art military/commercial packaging and technology base transitions. The family of Unitized Group Rations (UGRs) includes the Unitized Group Ration - Heat & Serve (UGR-H&S), Unitized Group Ration - Express (UGR-E), Unitized Group Ration - A (UGR-A), and Unitized Group Ration - M (UGR-M).</p> <p>FY 2018 Plans: Continue efforts to update/improve components, menus and packaging to increase consumption and overall nutritional intake of the family of Unitized Group Rations for UGR-A, M, E and H&S future year menus. Identify COTS/NDIs and 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 operational testing.</p> <p>FY 2018 to FY 2019 Increase/Decrease Statement: Effort as titled ends in FY 2018.</p> | | 0.831 | 1.062 | - | - | - |
| <p>Title: US Navy Standard Core Menu (NSCM) Continuous Product Improvement Project</p> | | 0.344 | 0.463 | - | - | - |

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Army | | | | Date: February 2018 | | |
| 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 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Description: Provide recommendations to the Naval Supply Systems Command (NAVSUP) for upgrading/improving Navy Standard Core Menu (NSCM) components by introducing new preparation techniques to enhance menu acceptance and effectiveness while reducing labor requirements. FY 2018 Plans: Continue to identify and validate COTS/NDI candidate enhancements to the Navy Standard Core Menu (NSCM). Test and evaluate new products and techniques using Navy Galley equipment. 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/recommendation to NAVSUP for adoption and procurement. FY 2018 to FY 2019 Increase/Decrease Statement: Effort as titled ends in FY 2018. | | | | | | |
| 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 through enhanced combustion technologies. | | 0.351 | - | - | - | - |
| Title: Multi-Purpose Individual Heating Technology (MIT) Description: Develop a disposable, lightweight heating mechanism as a low-cost component of the Meal, Cold Weather/Long Range Patrol (MCW/LRP) to facilitate preparation of operational rations in extreme environments with reduced resource requirements and increased ease of use. FY 2018 Plans: Evaluate MIT prototypes transitioned to 6.4. Conduct in-house test and evaluation (T&E), and transition results to 6.5 for Engineering and Manufacturing Development. FY 2018 to FY 2019 Increase/Decrease Statement: Effort as titled ends in FY 2018. | | 0.315 | 0.496 | - | - | - |
| Title: Joint Intuitive Multi-function Kitchen Equipment (JIMKE) | | 0.181 | 0.730 | - | - | - |

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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 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| <p>Description: Reduce logistics burden associated with life cycle management of Navy (USN), Air Force (USAF) and Marine Corps (USMC) foodservice equipment. Integrate diagnostic technologies to predict maintenance, reduce labor associated with troubleshooting equipment in the field, and increase mean time between failures (MTBF).</p> <p>FY 2018 Plans: Complete in-house prototype test and evaluation, and transition to 6.5 for operational testing.</p> <p>FY 2018 to FY 2019 Increase/Decrease Statement: Effort as titled ends in FY 2018.</p> | | | | | | |
| <p>Title: Navy Galley and Scullery Upgrades</p> <p>Description: Continuously modernize foodservice operations by adding capabilities to provide optimized feeding, standardizing foodservice equipment assets fleet-wide, improving space utilization, and facilitating the continued use of the NSCM. Design, processes and equipment insertions will be implemented on legacy platforms during overhaul periods and during the new construction process on future vessels.</p> <p>FY 2018 Plans: Identify advanced equipment technologies to support existing and new ship class designs to support the Galley and Scullery operations. Conduct in-house testing of equipment recommended by Navy subject matter experts. Transition T&E reports to USN.</p> <p>FY 2018 to FY 2019 Increase/Decrease Statement: Effort as titled ends in FY 2018.</p> | | 0.445 | 0.680 | - | - | - |
| <p>Title: Greywater Recycling for the Basic Expeditionary Airfield Resources (BEAR) Kitchen Systems</p> <p>Description: Leverage NDI and COTS greywater filtration technologies to reduce operating and support (O&S) costs for the basic expeditionary airfield resources (BEAR) kitchen system.</p> | | 0.337 | - | - | - | - |
| <p>Title: Modular Integrated Kitchen System (MIKS)</p> <p>Description: Design a standardized mounting system for all Galley equipment to significantly reduce technical labor skills required to complete deck modifications. Modular Integrated Kitchen System (MIKS) will standardize electrical and water requirements, enhance procurement options, decrease operating and support (O&S) costs, and increase the speed of installing new technologies into the Galley/Scullery areas.</p> | | 0.319 | - | - | - | - |

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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 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| <p>Title: Defense Logistics Agency (DLA)</p> <p>Description: Support management of the Department of Defense (DoD) Electronic Document Access (EDA) and Wide Area Workflow (WAWF) programs.</p> <p>FY 2018 Plans: Fund Defense Logistics Agency (DLA) Document Services to support management of the DoD EDA and WAWF programs.</p> <p>FY 2018 to FY 2019 Increase/Decrease Statement: Final year of this effort is FY 2018.</p> | | 0.558 | 0.558 | - | - | - |
| <p>Title: Tray Ration Heater ? Improved (TRH-I)</p> <p>Description: Develop an updated and compact Tray Ration Heater to meet the requirements of the smaller, up-armored HMMWV cargo beds. Reduce the overall weight, improve man-portability, heat transfer efficiency, thermal storage efficiency, and reduce water consumption. Meet USMC approved Statement of Need requirement for a Modernized Tray Ration Heat System.</p> <p>FY 2018 Plans: Develop TRH-I SOW and technical objectives. Prepare contract documentation and award TRH-I development contract.</p> <p>FY 2018 to FY 2019 Increase/Decrease Statement: Effort as titled ends in FY 2018.</p> | | - | 0.495 | - | - | - |
| <p>Title: Inflatable Refrigerated Space (IRefS)</p> <p>Description: Develop a pallet sized, rapidly deployable, air deliverable field refrigeration system for safe storage of UGR-A rations to units located in austere environments with little to no ability to obtain rigid refrigerated containers.</p> <p>FY 2018 Plans: Develop SOW with objective and threshold performance criteria and award contract to design and fabricate a high fidelity IRefS prototype.</p> <p>FY 2018 to FY 2019 Increase/Decrease Statement:</p> | | - | 0.610 | - | - | - |

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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 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Effort as titled ends in FY 2018. | | | | | | |
| <p>Title: Navy Mobile Feeding Galley</p> <p>Description: Develop a mobile feeding system that is equipped with innovative cooking technology. The platform will have the capability to produce a rotating menu of fresh and healthy cuisine that will appeal to the millennial generation of sailors.</p> <p>FY 2018 Plans: Conduct market research to define equipment needs. Prepare SOW and contract documents for modified or prototype mobile system and award contract.</p> <p>FY 2018 to FY 2019 Increase/Decrease Statement: Effort as titled ends in FY 2018.</p> | | - | 0.328 | - | - | - |
| <p>Title: Joint Service Combat Ration Advanced Development</p> <p>Description: This effort matures and integrates combat ration technologies and prototypes that enable warfighter maneuver, readiness and effectiveness during highly mobile, dispersed operations. Technologies are transitioned from PE 0603001A/Project C07 to provide combat rations and components with improved capabilities including improved warfighter physical and cognitive performance through optimized nutrition and a reduced logistics burden through weight and cube reduction.</p> <p>FY 2019 Base Plans: Will mature and integrate applied nutrition, food engineering, and food packaging innovations into ration platforms to increase operational effectiveness; identify suitable COTS/NDI candidate items 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; conduct accelerated storage studies to validate candidate components meet or exceed shelf-life requirements; develop test menus for warfighter evaluations; and transition validated prototypes to 6.5 for operational testing.</p> <p>FY 2018 to FY 2019 Increase/Decrease Statement: Lines of effort previously reported separately (i.e., FIRIP; ASPIP; FGRIP and MIT) have been merged into a single line starting in FY 2019 titled ?Joint Service Combat Ration Advanced Development?.</p> | | - | - | 1.751 | - | 1.751 |
| Title: Joint Service Field Feeding Equipment and Menu Development | | - | - | 2.848 | - | 2.848 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Army | | | | | | | | | | Date: February 2018 | |
| 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 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | |
| <p>Description: This effort matures and integrates field feeding equipment technologies and prototypes in support of the Navy, Air Force, and Marine Corps that reduce the logistics burden, improve efficiency, and decrease operation and support costs as directed by the DoD CFREB. This effort also conducts test and evaluation (T&E) on Navy Standard Core Menu components and preparation techniques to enhance efficiency through standardization across the fleet and reduce labor requirements.</p> <p>FY 2019 Base Plans: Will conduct T&E of prototype equipment with diagnostic and predictive capabilities to decrease sustainment life-cycle costs and decrease equipment downtime; conduct design reviews and fabricate prototypes that improve the heating efficiency of rations while reducing overall weight, cube and total lifecycle costs; design and fabricate a rapidly deployable field refrigeration prototype to reduce resupply requirements to units in austere locations; test and evaluate new products and food preparation techniques to enhance menu acceptance and reduce labor requirements; and transition prototypes to PE 0604713A/Project 548 for System Development and Demonstration.</p> <p>FY 2018 to FY 2019 Increase/Decrease Statement: Lines of effort previously reported separately (i.e., NSCM Continuous Product Improvement Project; Block Upgrades and Operational Improvements for Expeditionary Field Feeding Equipment; JIMKE, Navy Galley and Scullery Upgrades; MIKS, TRH-I, IRefS and Navy Mobile Feeding Galley) have been merged into a single line starting in FY 2019 titled ?Joint Service Field Feeding Equipment and Menu Development?.</p> | | | | | | | | | | | |
| | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | | | 5.095 | 6.548 | 4.599 | - | 4.599 | |
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
| Line Item | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | Cost To Complete | Total Cost |
| • 548: Mil Subsistence Sys | 0.730 | 0.700 | 1.093 | - | 1.093 | 1.893 | 1.942 | 1.817 | 1.531 | 0.000 | 9.706 |
| Remarks | | | | | | | | | | | |
| 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 2019 Army | | | | | | | | | | | | Date: February 2018 | | | |
| Appropriation/Budget Activity 2040 / 4 | | | | | | R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability | | | | | Project (Number/Name) 610 / Food Adv Development | | | | |
| Management Services (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 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 | Allot | RDECOM, NSRDEC, Natick, MA : Natick, MA | 5.785 | 0.574 | Oct 2016 | 0.707 | Oct 2017 | 0.511 | Oct 2018 | - | | 0.511 | Continuing | Continuing | Continuing |
| DLA Bill Pay | TBD | Various : Various | 1.140 | 0.410 | Oct 2016 | 0.586 | Oct 2017 | - | | - | | - | 0.000 | 2.136 | - |
| Subtotal | | | 6.925 | 0.984 | | 1.293 | | 0.511 | | - | | 0.511 | Continuing | Continuing | N/A |
| Product Development (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 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 Rations and Combat Feeding Equipment | Various | Various : Various | 26.742 | 3.759 | Oct 2016 | 4.704 | Oct 2017 | 3.656 | Oct 2018 | - | | 3.656 | Continuing | Continuing | Continuing |
| Subtotal | | | 26.742 | 3.759 | | 4.704 | | 3.656 | | - | | 3.656 | Continuing | Continuing | N/A |
| Test and Evaluation (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 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 Rations and Combat Feeding Equipment | Allot | RDECOM, NSRDEC, Natick, MA : Natick, MA | - | 0.352 | Oct 2016 | 0.551 | Oct 2017 | 0.432 | Oct 2018 | - | | 0.432 | Continuing | Continuing | Continuing |
| Subtotal | | | - | 0.352 | | 0.551 | | 0.432 | | - | | 0.432 | Continuing | Continuing | N/A |
| | | | Prior Years | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 Total | Cost To Complete | Total Cost | Target Value of Contract |
| Project Cost Totals | | | 33.667 | 5.095 | | 6.548 | | 4.599 | | - | | 4.599 | Continuing | Continuing | N/A |
| Remarks | | | | | | | | | | | | | | | |

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| Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army | | | Date: February 2018 | | |
| 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> |

| Event Name | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | |
|--|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 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 combat ration enhancements and transition to SDD for C | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Provide USN w/CPI, evaluations and menu development to supp | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct in-house T&E of MIT heating prototypes for MCW | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dem/Val on Block Upgrade Improvements to support modification | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Complete development of MIKS prototype for USN and transition | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ID and evaluate advanced galley/scullery equipment for the USN | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct Dem/Val of Galley/Scullery equipment and transition to S | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ID and evaluate prototype greywater system for the USAF | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct in-house T&E of JSERCS prototype for BEAR Type I kitch | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Procure BEAR Type II kitchen for in-house T&E and transition to SDD for OT&E | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Award dev contract and obtain Tray Ration Heater - Improved prototypes for USMC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ID and procure enabling technologies for rapidly deployable refrigeration system | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Identify and procure JIMKE prototypes | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army | | | Date: February 2018 |
| 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 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | |
|--|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 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 T&E of mobile feeding galley and transition to SDD for OT&E | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Award contract for build of prototype mobile galley feeding system for USN | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct in-house T&E of JIMKE intuitive equipment and transition to SDD for OT&E | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Award contract to fabricate IRefS prorotype and conduct in-house T&E | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army | | | Date: February 2018 |
| 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 combat ration enhancements and transition to SDD for OT&E | 1 | 2017 | 4 | 2023 |
| Provide USN w/CPI, evaluations and menu development to support NSCM upgrades | 1 | 2017 | 4 | 2023 |
| Conduct in-house T&E of MIT heating prototypes for MCW | 1 | 2017 | 4 | 2018 |
| Dem/Val on Block Upgrade Improvements to support modification of USMC FSE | 1 | 2017 | 4 | 2017 |
| Complete development of MIKS prototype for USN and transition to SDD for OT&E | 1 | 2017 | 4 | 2017 |
| ID and evaluate advanced galley/scullery equipment for the USN | 1 | 2017 | 4 | 2021 |
| Conduct Dem/Val of Galley/Scullery equipment and transition to SDD for OT&E | 1 | 2017 | 4 | 2021 |
| ID and evaluate prototype greywater system for the USAF | 1 | 2017 | 4 | 2017 |
| Conduct in-house T&E of JSERCS prototype for BEAR Type I kitchen for USAF | 1 | 2017 | 1 | 2018 |
| Procure BEAR Type II kitchen for in-house T&E and transition to SDD for OT&E | 1 | 2018 | 3 | 2018 |
| Award dev contract and obtain Tray Ration Heater - Improved prototypes for USMC | 1 | 2018 | 3 | 2018 |
| ID and procure enabling technologies for rapidly deployable refrigeration system | 1 | 2018 | 4 | 2018 |
| Identify and procure JIMKE prototypes | 1 | 2018 | 2 | 2019 |
| Conduct in-house T&E of mobile feeding galley and transition to SDD for OT&E | 1 | 2019 | 1 | 2020 |
| Award contract for build of prototype mobile galley feeding system for USN | 1 | 2018 | 1 | 2019 |
| Conduct in-house T&E of JIMKE intuitive equipment and transition to SDD for OT&E | 2 | 2019 | 4 | 2020 |
| Award contract to fabricate IRefS prorotype and conduct in-house T&E | 1 | 2019 | 4 | 2020 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Army | | | | | | | | | | Date: February 2018 | | |
|---|-------------|---------|---------|--------------|--|---------------|---------|---------|--|---------------------|------------------|------------|
| 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 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | Cost To Complete | Total Cost |
| C08: Rapid Equipping Force | - | 6.639 | 6.162 | 2.799 | 3.000 | 5.799 | 2.794 | 2.790 | 2.786 | 2.781 | 0.000 | 29.751 |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

Note

Equipment mix and configuration may change based on changes in operational environment and circumstances. Congressional add in FY 2017 listed as "program increase"

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 Memorandum, Under Secretary of the Army, 30 Jan 2014, subject: Implementation Plan for Stabilization of the Rapid Equipping Force (REF).

The REF is the Army's Quick Reaction Capability (QRC) with the ability to acquire, integrate and sustain Commercial-Off-The Shelf (COTS), Government Off-The-Shelf (GOTS), Non-Developmental Item (NDI), and non-standard equipment solutions to meet urgent combat requirements for globally employed forces. It 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 assesses the provided capabilities to improve future solutions to inform materiel development for the future Army capability requirements and to potentially transition the capability to an Army acquisition program.

The REF bridges the gap between the Army's 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 immediate and effective game-changing capabilities to increase Soldier Readiness, effectiveness, protection, and lethality in any operational environment. The REF 10-Liner process provides the ability to react quickly to an ever-changing enemy who changes in days and months, not years in a complex world. The REF coordinates with the COCOMs/ASCCs in theater to fully understand their urgent needs, for which the REF acquisition capability may identify, procure, deliver, and sustain solutions to the deployed units. Although the REF works directly with Operational Commanders at all levels, it focuses on Brigade level and below to equip solutions to identified capability gaps.

The Army Acquisition Executive designated Program Executive Office (PEO) Soldier as the Milestone Decision Authority (MDA) to institutionalize the acquisition authorities in support of the REF and to provide proper acquisition oversight while enhancing visibility of these efforts. The MDA will ensure flexibility and speed focused on the Soldier's needs serviced by the dedicated REF Program Management Office (PMO). This establishes a formal acquisition reporting chain that leverages existing reporting venues to ensure appropriate Assistant Secretary of the Army (Acquisition, Logistics and Technology) (ASA(ALT)) visibility, oversight, and direction.

The REF capabilities cross all Warfighter Functions:

1. Mission Command
2. Movement and Maneuver

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Army | | | Date: February 2018 | | | | |
| Appropriation/Budget Activity 2040 / 4 | | R-1 Program Element (Number/Name) PE 0603747A / Soldier Support and Survivability | Project (Number/Name) C08 / Rapid Equipping Force | | | | |
| 3. Intelligence 4. Fires 5. Sustainment 6. Protection | | | | | | | |
| The REF FY19 RDT&E request is \$2.799 million (Base) and \$3.000 million (OCO) and is for system integration, testing, and evaluation to support project requirements. | | | | | | | |
| The RDT&E funding also provides the REF the flexibility to invest in near-term, and innovative solutions. RDT&E funds are necessary in the majority of all REF projects. Most importantly, REF requires RDT&E funds to conduct safety certification (testing) for non-standard equipment before it is equipped to the Soldier. This critical requirement exists to ensure that REF-provided equipment is safe for Soldiers to use and that any risks are identified and documented. The REF also requires RDT&E funds to integrate several different COTS/GOTS and NDI technologies into one capability that solves the tougher and more complex problems. RDT&E funds maybe used to further develop high (>6) Technology Readiness Level (TRL) systems or advanced technologies in conjunction with industry and Other Governmental Agencies (OGAs). Frequently, these technologies only need small amounts of funding 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 modify, test, and evaluate existing technologies that were developed for one purpose, however may be suitable to solve another problem. REF will also fund deliberate projects in support of technology-solution-scouting to meet anticipated Army needs and to mitigate operational gaps. These efforts measure and identify current technologies, and provide information to better inform Army Training and Doctrine Command (TRADOC) and other communities of interest, with the intent of enlightening future Army requirements. Example efforts that may require RDTE include the following projects: Tactical Satellite Communications (SATCOM) and communications systems; tactical and small Combat Out Post/Forward Operating Base (COP/FOB) Intelligence, Surveillance, and Reconnaissance (ISR) and Force Protection systems; Counter Unmanned Aerial Systems (CUAS); Electronic Warfare (EW) systems; Non-Tactical Vehicles (NTV); Persistent Duration UAS, and Subterranean (SubT) Operations. | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Title: Rapid Equipping Force | | | 3.139 | 6.162 | 2.799 | 3.000 | 5.799 |
| Description: Funding is provided for the following effort. | | | | | | | |
| FY 2018 Plans: The Rapid Equipping Force (REF) partners with Army Service Component Command (ASCC) forces and Army SOF community to perform DS to globally deployed Soldiers and regionally aligned BCTs. The REF anticipates increased uncertainty regarding the future of OIR and other operations in the Central Command (CENTCOM) Area of Responsibility (AOR) requiring additional flexibility to develop technological 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 continue our engagement with the ASCCs in order to address | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Army | | | Date: February 2018 | | | |
| 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 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| <p>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 also expects to play a much more deliberate role in providing support to the Global Response Force (GRF) as they prepare for a wider range of response missions. 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 at ~600 (Base/OCO) requirements in FY18 and beyond.</p> <p>For FY18 the REF projects ~600 (Base/OCO) requirements in the following REF Warfighter Functions:</p> <p>1. Mission Command: \$93K (15.06%) 2. Movement and Maneuver: \$186K (29.95%) 3. Intelligence: \$74K (11.98%) 4. Fires: \$6K (1.09%) 5. Sustainment: \$86K (13.97%) 6. Protection: \$172K (27.95%)</p> <p>FY18 funds for projects in the amount of \$617K (10% of budget); breakout is based on the FY16 requirements trend.</p> <p>The REF anticipates ATEC testing and evaluation cost of \$5.545 million. The REF requires RDT&E funds to test technologies in order to ensure suitability and safety before equipping the Soldier ? any modified Commercial-Off-The-Shelf (COTS), Government-Off-The-Shelf (GOTS) and Non-Developmental (NDI) item has to be tested.</p> <p>FY 2019 Base Plans:</p> <p>The REF partners with ASCC forces and Army SOF community to support globally deployed Soldiers and regionally aligned BCTs in all areas of responsibility. The REF anticipates increased uncertainty regarding the future of OIR and other operations in the CENTCOM AOR requiring additional flexibility to develop technological solutions supporting the reduced numbers of Soldiers operating globally in order to fill force protection gaps in the face of a lethal terrorism threat. The REF expects to continue our engagement with the ASCCs to address capability gaps generated by geographical and environmental constraints. Conversely, the REF will increase its understanding of evolving threats and operating conditions within the respective ASCC areas of operations. The REF also expects to play a much more deliberate role in providing support to the GRF as they prepare for a wider range of response missions. In accordance with REF?s participation in the Office of Secretary of Defense</p> | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Army | | | Date: February 2018 | | | |
| 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 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| <p>(OSD) led quick reaction capability effort, the Army determined the REF would provide the Army?s warm base capability at ~600 requirements in FY19 and beyond.</p> <p>For FY19 the REF projects ~495 (Base/OCO) requirements in the following REF Warfighter function areas.</p> <p>1. Mission Command: \$ 56K (10.06%) 2. Movement and Maneuver: \$93K (16.56%) 3. Intelligence: \$129K (23.05%) 4. Fires: \$2K (.32%) 5. Sustainment: \$89K (15.91%) 6. Protection: \$191 (34.10%)</p> <p>The FY19 funds for projects in the amount of \$560K (20% of Budget); breakout is base on the FY17 requirements trend.</p> <p>The REF anticipates ATEC testing and evaluation cost of \$2.239 million. 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 item has to be tested.</p> <p>FY 2019 OCO Plans: The FY19 OCO funding is required to support emerging requirements to meet capability gaps in Operation Enduring Freedom (OEF), Operation Inherent Resolve (OIR), Horn-of-Africa (HOA), and all OCO funded operations/regions.</p> <p>For FY19 the REF projects ~495 (Base/OCO) requirements in the following War Fighter Functions:</p> <p>1. Mission Command: \$60K (10.06%) 2. Movement and Maneuver: \$99K (16.56%) 3. Intelligence: \$138K (23.05%) 4. Fires: \$2K (.32%) 5. Sustainment: \$95K (15.91%) 6. Protection: \$206K (34.10%)</p> | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Army | | | | | | | | | | Date: February 2018 | |
| 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> | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | | | | | |
| | | | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | | | |
| The FY19 funds for projects in the amount of \$600K (20% of Budget); breakout is base on the FY17 requirements trend. | | | | | | | | | | | |
| The REF anticipates ATEC testing and evaluation cost of \$2.400 million. 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 item has to be tested. | | | | | | | | | | | |
| FY 2018 to FY 2019 Increase/Decrease Statement: Decrease in funding from FY18 to FY19 is due to economic adjustments. | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | 3.139 | 6.162 | 2.799 | 3.000 | 5.799 | | | |
| | | | | FY 2017 | FY 2018 | | | | | | |
| Congressional Add: Congressional Add Row | | | | 3.500 | - | | | | | | |
| FY 2017 Accomplishments: N/A | | | | | | | | | | | |
| Congressional Adds Subtotals | | | | 3.500 | - | | | | | | |
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
| Line Item | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | Cost To Complete | Total Cost |
| • M80101: <i>Rapid Equipping Soldier Support Equipment</i> | 30.503 | 13.500 | 9.879 | 18.000 | 27.879 | 9.878 | 9.878 | 9.879 | 9.880 | 0.000 | 111.397 |
| Remarks | | | | | | | | | | | |
| D. Acquisition Strategy | | | | | | | | | | | |
| The Rapid Equipping Force (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: 1) rapidly adapting COTS/GOTS/NDI equipment to meet operational needs, and 2) 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 requirements generation and future capability development. REF capabilities routinely serve 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 2019 Army | | Date: February 2018 |
| 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 2019 Army | | | | | | | | | | | | Date: February 2018 | | | |
|---|------------------------|--------------------------------|-------------|---------|------------|--|------------|--------------|------------|--|------------|---------------------|------------------|------------|--------------------------|
| 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 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 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 |
| Mission Command | C/FFP | Various : Various | - | 0.100 | | 0.093 | | 0.056 | | 0.060 | | 0.116 | 0.000 | 0.309 | - |
| Movement and Maneuver | C/FFP | Various : Various | - | 0.198 | | 0.186 | | 0.093 | | 0.099 | | 0.192 | 0.000 | 0.576 | - |
| Intelligence | C/FFP | Various : Various | - | 0.080 | | 0.074 | | 0.129 | | 0.138 | | 0.267 | 0.000 | 0.421 | - |
| Fires | C/FFP | Various : Various | - | 0.007 | | 0.006 | | 0.002 | | 0.002 | | 0.004 | 0.000 | 0.017 | - |
| Sustainment | C/FFP | Various : Various | - | 0.093 | | 0.086 | | 0.089 | | 0.095 | | 0.184 | 0.000 | 0.363 | - |
| Protection | C/FFP | Various : Various | - | 0.186 | | 0.172 | | 0.191 | | 0.206 | | 0.397 | 0.000 | 0.755 | - |
| Dismounted Improvised Explosive Device (IED) Defeat | C/FFP | Various : Various | 2.889 | - | | - | | - | | - | | - | Continuing | Continuing | Continuing |
| Dismounted Operations Support | C/FFP | Various : Various | 4.796 | - | | - | | - | | - | | - | Continuing | Continuing | Continuing |
| Intelligence, Surveillance, and Reconnaissance (ISR) Shortfalls in Environmentally Inhospitable OEs | C/FFP | Various : Various | 5.951 | - | | - | | - | | - | | - | 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 | 2.208 | - | | - | | - | | - | | - | 0.000 | 2.208 | - |
| Base: Various Projects-Protect the Force in Counter Insurgency | C/FFP | Various : Various | 11.841 | - | | - | | - | | - | | - | 0.000 | 11.841 | - |
| Small Combat Outpost (COP)/Patrol Base (PB) Sustainment | C/FFP | Various : Various | 1.506 | - | | - | | - | | - | | - | 0.000 | 1.506 | - |
| Base: Various Projects-Enhance Intelligence Surveillance Recon | C/FFP | Various : Various | 9.009 | - | | - | | - | | - | | - | 0.000 | 9.009 | - |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army | | | | | | | | | | | | Date: February 2018 | | | |
| 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 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 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 |
| Small Combat Outpost (COP)/Patrol Base (PB) Force Protection | C/FFP | Various : Various | 2.093 | - | | - | | - | | - | | - | 0.000 | 2.093 | - |
| Dismounted Blue Force Tracking and Mission Command | C/FFP | Various : Various | 0.528 | - | | - | | - | | - | | - | 0.000 | 0.528 | - |
| Base: Various Projects-Logistics/Medical in Counterinsurgency Ops | C/FFP | Various : Various | 1.639 | - | | - | | - | | - | | - | 0.000 | 1.639 | - |
| Base: Various Projects-Timeliness of Analysis and Information Dissemination | C/FFP | Various : Various | 6.961 | - | | - | | - | | - | | - | 0.000 | 6.961 | - |
| Congressional Add-Squad Mission Support System (SMSS) | C/FFP | Various : Various | 1.600 | - | | - | | - | | - | | - | 0.000 | 1.600 | - |
| SSTR/Economic Assumptions/FFRDC and SBIR | C/FFP | Various : Various | 1.090 | - | | - | | - | | - | | - | 0.000 | 1.090 | - |
| OCO: Rapid Equipping Force | C/FFP | Various : Various | 19.190 | - | | - | | - | | - | | - | 0.000 | 19.190 | - |
| Subtotal | | | 83.817 | 0.664 | | 0.617 | | 0.560 | | 0.600 | | 1.160 | Continuing | Continuing | N/A |
| Test and Evaluation (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 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 | 11.344 | - | | - | | - | | - | | - | Continuing | Continuing | Continuing |
| ATEC (Warfighter Function Areas) | C/FFP | Various : Various | - | 5.975 | | 5.545 | | 2.239 | | 2.400 | | 4.639 | 0.000 | 16.159 | - |
| ATEC (REF Integrated Priority List 1-7) | C/FFP | Various : Various | 2.000 | - | | - | | - | | - | | - | 0.000 | 2.000 | - |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army | | | | | | | | | | | | Date: February 2018 | | |
| 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> | | | | |

| Test and Evaluation (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 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 |
| Subtotal | | | 13.344 | 5.975 | | 5.545 | | 2.239 | | 2.400 | | 4.639 | Continuing | Continuing | N/A |

| | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|-------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|
| Project Cost Totals | 97.161 | 6.639 | 6.162 | 2.799 | 3.000 | 5.799 | Continuing | Continuing | N/A |

Remarks

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|---|---------|---|---|---|---------|---|---|---|---------|--|---|---|---------|---|---|---------------------|---------|--|---|---|---------|---|---|---|---------|---|---|---|
| Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army | | | | | | | | | | | | | | | | Date: February 2018 | | | | | | | | | | | | |
| 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 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | |
| | 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 |
| Rapid Equipping Force | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army | | Date: February 2018 |
| 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 |
| Rapid Equipping Force | 1 | 2017 | 4 | 2023 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Army | | | | | | | | | | Date: February 2018 | | |
| 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 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | Cost To Complete | Total Cost |
| EL1: Army Field Feeding Programs | - | 1.873 | 0.447 | 1.348 | - | 1.348 | 0.498 | 1.627 | 2.075 | 1.482 | 0.000 | 9.350 |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

A. Mission Description and Budget Item Justification

This project provides for the advanced component development and prototyping of Army 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. 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 Project supports Field Feeding programs for the Army.

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

| | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
|--|----------------|----------------|---------------------|--------------------|----------------------|
| Title: Battlefield Kitchen (BK) technology development effort | 1.873 | - | - | - | - |
| Description: Provide replacement of the obsolete Mobile Kitchen Trailer (MKT) system. The Battlefield Kitchen (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. | | | | | |
| Title: Ethylene Control Device (ECD) for Multi Temperature Refrigerated Container System (MTRCS) | - | 0.200 | 0.750 | - | 0.750 |
| Description: Develop a compact, low power, automated system that decomposes ethylene inside the Multi Temperature Refrigerated Container Systems (MTRCS) to extend the shelf life of fresh fruits and vegetables. The 300 watt Ethylene Control Device (ECD) provides an average of two week shelf life extension of fresh produce. It can be operated independently or in unison with the MTRCS refrigeration system and can be temporarily or permanently mounted with no negative impact to the MTRCS storage capacity. (MTRCS Operational Requirements Document (ORD) approved Apr 2002). | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Army | | | Date: February 2018 | | | |
| 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 | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| FY 2018 Plans: Transition mature ethylene control technology from the Navy and Army Science and Technology (S&T) into a functioning prototype that can be evaluated in a realistic field setting. Transition into the MTRCS Program of Record as an Engineering Change to fielded and newly produced MTRCS. | | | | | | |
| FY 2019 Base Plans: Will award ECD technology integration contract to MTRCS prime contractor using improvement clause. Complete integrated system design. Conduct evaluations on prototype system integrating into a standard MTRCS. Determine readiness to transition into Engineering and Manufacturing Development (EMD). | | | | | | |
| FY 2018 to FY 2019 Increase/Decrease Statement: Funds were increased in FY 2019 to fabricate and evaluate ECD prototypes. | | | | | | |
| Title: Deployable Sustainable Efficient Refrigeration Technology (DESERT) | | - | 0.247 | - | - | - |
| Description: Description: Develop enhanced refrigeration unit that uses a lower Global Warming Potential (GWP) refrigerant than the current MTRCS. The Deployable Sustainable Efficient Refrigeration Technology (DESERT) makes use of R-134A as the working fluid. R-134A has a GWP of ~1300 as compared to the current MTRCS refrigerant R404A which has a GWP of ~3900. The redesigned refrigeration unit offers greater fuel efficiency, operation at real sun/desert temperatures of 135F, increased reliability and the ability to make use of alternate power sources to augment efficiency. The DESERT refrigeration unit shall be backwards compatible to the MTRCS for continuing procurement and as a replacement. (MTRCS ORD approved Apr 2002). | | | | | | |
| FY 2018 Plans: Transition DESERT technology from the Army Science and Technology Program through a technology transition agreement. Award contract to produce prototypes. | | | | | | |
| FY 2018 to FY 2019 Increase/Decrease Statement: To be completed in FY18. | | | | | | |
| Title: Food Sanitation Center III (FSC III) | | - | - | 0.598 | - | 0.598 |
| Description: Develop, Test and Field a Containerized Food Sanitation center using the modular burner and the modular appliance concept that meets the requirements of the Force Provider | | | | | | |
| FY 2019 Base Plans: | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Army | | | | | | | | | | Date: February 2018 | |
| 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 | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total |
| Will oversee contractor Systems Engineering design approach to develop a comprehensive Food Sanitation Center (FSC) III design that meets the stringent requirements of Force Provider Expeditionary transportation and worldwide fielding paradigms. Conduct preliminary and critical design reviews and oversee the fabrication of high fidelity prototypes. | | | | | | | | | | | |
| FY 2018 to FY 2019 Increase/Decrease Statement: New start in FY 18 that if funding is approved will start conducting in house engineering and then in FY 19 design reviews will start. | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | | | | 1.873 | 0.447 | 1.348 | - | 1.348 |
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
| Line Item | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | Cost To Complete | Total Cost |
| • EL2: Army Field Feeding Equipment | 1.245 | 3.002 | 3.414 | - | 3.414 | 4.248 | 2.921 | 2.923 | 2.979 | 0.000 | 20.732 |
| • M65806: Assault Kitchen (AK) | 5.085 | 4.608 | 4.587 | - | 4.587 | 2.858 | - | - | - | 0.000 | 17.138 |
| • M65801: REFRIGERATED CONTAINER SYSTEMS | 10.124 | 10.877 | 8.105 | 1.035 | 9.140 | 6.448 | 7.211 | 12.607 | 12.603 | 0.000 | 69.010 |
| • R62830: Battlefield Kitchen (BK) | - | - | 2.024 | - | 2.024 | 6.667 | 10.705 | 14.774 | 18.132 | 0.000 | 52.302 |
| Remarks | | | | | | | | | | | |
| D. Acquisition Strategy Project development will transition to Engineering and Manufacturing Development (EMD) and into production after thorough testing. | | | | | | | | | | | |
| E. Performance Metrics N/A | | | | | | | | | | | |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army | | | | | | | | | | | | Date: February 2018 | | | |
| 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 | | | | | |
| Management Services (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 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 | PMFSS : Natick, MA | 0.150 | 0.199 | | 0.145 | | 0.190 | | - | | 0.190 | 0.000 | 0.684 | - |
| Subtotal | | | 0.150 | 0.199 | | 0.145 | | 0.190 | | - | | 0.190 | 0.000 | 0.684 | N/A |
| Product Development (\$ in Millions) | | | | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 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 | PMFSS : Natick, MA | 0.958 | 1.674 | | - | | - | | - | | - | 0.000 | 2.632 | - |
| ECD for MTRCS | Various | Various : Various | - | - | | 0.125 | | 0.657 | | - | | 0.657 | 0.000 | 0.782 | - |
| DESERT | Various | PMFSS : Natick, MA | - | - | | 0.177 | | - | | - | | - | 0.000 | 0.177 | - |
| FSC III | Various | Various : Various | - | - | | - | | 0.501 | | - | | 0.501 | 0.000 | 0.501 | - |
| Subtotal | | | 0.958 | 1.674 | | 0.302 | | 1.158 | | - | | 1.158 | 0.000 | 4.092 | N/A |
| | | | Prior Years | FY 2017 | | FY 2018 | | FY 2019 Base | | FY 2019 OCO | | FY 2019 Total | Cost To Complete | Total Cost | Target Value of Contract |
| Project Cost Totals | | | 1.108 | 1.873 | | 0.447 | | 1.348 | | - | | 1.348 | 0.000 | 4.776 | N/A |
| Remarks | | | | | | | | | | | | | | | |

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| Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army | | | Date: February 2018 | | |
| 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> | |

| Event Name | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | |
|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 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 of | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Award contract for technology integration to MTRCS | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Develop testable ECD's prototypes for MTRCS systems | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transition ECD to EMD | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | |
| Award FSC III development contract based on initial designs for FSC III | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Design and Fabricate testable FSC III prototype systems | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transition FSC III to Development and Demonstration | | | | | | | | | | | | | | | | 5 | | | | | | | | | | | | |
| Transition CO2 technology from S&T/SBIR to MTRCS | | | | | | | | | | | | | | | 6 | | | | | | | | | | | | | |
| Award advanced component development contract for CO2 based refrigeration unit. | | | | | | | | | | | | | | | 7 | | | | | | | | | | | | | |
| Conduct advanced component development and testing to complete CO2 based design | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transition CO2 technology to development and demonstration | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | |
| Award component development contract for UGR-A capable AK | | | | | | | | | | | | | | | | | | | 8 | | | | | | | | | |
| Design and develop UGR-A candidate components for integration | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army | | | | | | | | | | | | | | | | Date: February 2018 | | | | | | | | | | | | |
| 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 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | |
| | 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 DT required to validate self power, modularity and UGR-A capability | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transition UGR-A to development and demonstration | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Award contract to produce DESERT prototypes | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct technology viability assessment on Solid Waste Reduction systems | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adapt S&T derived or commercial equipment to meet requirements on SWR | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct developmental testing on prototype of SWR | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Use test data to develop to develop high fidelity performance spec on SWR | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Award product development contract on SWR | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Procure prototype electric/diesel powered TRCS using OTA | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Develop 2 dual powered TRCS for testing | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct component testing on modified TRCS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transition TRCS to development and demonstration | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army | | | Date: February 2018 |
| 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 the BK | 1 | 2017 | 4 | 2017 |
| Award contract for technology integration to MTRCS | 2 | 2019 | 2 | 2019 |
| Develop testable ECD's prototypes for MTRCS systems | 1 | 2018 | 2 | 2019 |
| Transition ECD to EMD | 4 | 2019 | 4 | 2019 |
| Award FSC III development contract based on initial designs for FSC III | 1 | 2019 | 1 | 2019 |
| Design and Fabricate testable FSC III prototype systems | 1 | 2019 | 4 | 2019 |
| Transition FSC III to Development and Demonstration | 4 | 2019 | 4 | 2019 |
| Transition CO2 technology from S&T/SBIR to MTRCS | 1 | 2020 | 1 | 2020 |
| Award advanced component development contract for CO2 based refrigeration unit. | 1 | 2020 | 1 | 2020 |
| Conduct advanced component development and testing to complete CO2 based design | 2 | 2020 | 3 | 2021 |
| Transition CO2 technology to development and demonstration | 4 | 2021 | 4 | 2021 |
| Award component development contract for UGR-A capable AK | 1 | 2021 | 1 | 2021 |
| Design and develop UGR-A candidate components for integration | 2 | 2021 | 4 | 2021 |
| Conduct DT required to validate self power, modularity and UGR-A capability | 4 | 2021 | 2 | 2022 |
| Transition UGR-A to development and demonstration | 2 | 2022 | 2 | 2022 |
| Award contract to produce DESERT prototypes | 4 | 2018 | 4 | 2018 |
| Conduct technology viability assessment on Solid Waste Reduction systems | 1 | 2022 | 4 | 2022 |
| Adapt S&T derived or commercial equipment to meet requirements on SWR | 2 | 2022 | 3 | 2022 |
| Conduct developmental testing on prototype of SWR | 4 | 2022 | 2 | 2023 |
| Use test data to develop to develop high fidelity performance spec on SWR | 3 | 2023 | 4 | 2023 |
| Award product development contract on SWR | 4 | 2023 | 4 | 2023 |
| Procure prototype electric/diesel powered TRCS using OTA | 1 | 2022 | 1 | 2022 |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army | | | Date: February 2018 | | |
| 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 | |
| | | Start | | End | |
| Events | | Quarter | Year | Quarter | Year |
| Develop 2 dual powered TRCS for testing | | 2 | 2022 | 4 | 2022 |
| Conduct component testing on modified TRCS | | 1 | 2023 | 3 | 2023 |
| Transition TRCS to development and demonstration | | 4 | 2023 | 4 | 2023 |