Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Army											Date: May 2017	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604622A *I Family of Heavy Tactical Vehicles*							
COST ($ in Millions)	**Prior Years**	**FY 2016**	**FY 2017**	**FY 2018 Base**	**FY 2018 OCO**	**FY 2018 Total**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**Cost To Complete**	**Total Cost**
Total Program Element	-	0.000	11.429	10.507	-	10.507	20.602	12.924	17.495	4.209	Continuing	Continuing
659: *Family Of Hvy Tac Veh*	-	0.000	0.986	0.900	-	0.900	9.500	7.001	13.578	0.000	0.000	31.965
E50: *TRAILER DEVELOPMENT*	-	0.000	5.919	3.850	-	3.850	5.350	0.000	0.000	0.000	0.000	15.119
VR5: *TWV Protection Kits*	-	0.000	4.524	5.757	-	5.757	5.752	5.923	3.917	4.209	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element aligns system development and demonstration of Heavy Tactical Vehicles (HTV) with Future Force requirements to support combat and combat support missions. Missions include the following: line haul, local haul, and unit resupply. HTV trucks transport water, ammunition, and general cargo over all terrain and throughout the battle-space. Funding will also be used for developing the Army's next generation of tactical trucks, as part of the Army's Tactical Wheeled Vehicle Modernization Strategy. Funding in this Program Element (PE) supports the Family of Heavy Trucks to include active safety technologies, periodic evolutionary upgrade of survivability and crew protection as described in the Long Term Protection Strategy (LTPS), and heavy tactical trailer development.

FY 2018 Project 659 Base funds in the amount of $0.900 million will be used to complete Enhanced Heavy Equipment Transporter (EHET) documentation and pre-Materiel Development Decision (pre-MDD) efforts, as well as, beginning pre-Milestone B efforts.

FY2018 Project E50 Base funds in the amount of $3.850 million will be used to conduct Semi Trailer Low Bed (STLB) limited performance and reliability testing, Source Selection Evaluation Board (SSEB), and Systems Engineering Program Management (SEPM) support.

FY 2018 Project VR5 Base funds in the amount of $5.757 million will be used to develop Heavy Dump Truck (HDT) armor; design, prototype and test axle, suspension and weapon station upgrades for the Heavy Expanded Mobility Tactical Truck A4 (HEMTTA4) and Palletized Load System A1 (PLSA1); convert the HEMTTA4/PLSA1 Underbody Armor Kit Technical Data Package (TDP) from Prototype-level to Production-level; and SEPM support.

Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Army					Date: May 2017
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604622A *I Family of Heavy Tactical Vehicles*		
B. Program Change Summary ($ in Millions)	**FY 2016**	**FY 2017**	**FY 2018 Base**	**FY 2018 OCO**	**FY 2018 Total**
Previous President's Budget	0.000	11.429	7.123	-	7.123
Current President's Budget	0.000	11.429	10.507	-	10.507
Total Adjustments	0.000	0.000	3.384	-	3.384
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	0.000	0.000	3.384	-	3.384

Change Summary Explanation

FY 2018 Project 659 Base funds in the amount of $0.400 million will be used to complete Enhanced Heavy Equipment Transporter (EHET) documentation and pre-Materiel Development Decision (pre-MDD) efforts, as well as, beginning pre-Milestone B efforts.

FY2018 Project E50 Base funds in the amount of $2.850 million will be used to conduct Semi Trailer Low Bed (STLB) limited performance and reliability testing, Source Selection Evaluation Board (SSEB), and Systems Engineering Program Management (SEPM) support.

FY 2018 Project VR5 Base funds in the amount of $0.134 million will be used to develop Heavy Dump Truck (HDT) armor; design, prototype and test axle, suspension and weapon station upgrades for the Heavy Expanded Mobility Tactical Truck A4 (HEMTTA4) and Palletized Load System A1 (PLSA1); convert the HEMTTA4/PLSA1 Underbody Armor Kit Technical Data Package (TDP) from Prototype-level to Production-level; and SEPM support.

Exhibit R-2A, RDT&E Project Justification: FY 2018 Army			Date: May 2017
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604622A / *Family of Heavy Tactical Vehicles*	Project (Number/Name) 659 / *Family Of Hvy Tac Veh*	

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
659: *Family Of Hvy Tac Veh*	-	0.000	0.986	0.900	-	0.900	9.500	7.001	13.578	0.000	0.000	31.965
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

The EHETs program is expected to enter at Milestone B after completion of the AoA.

A. Mission Description and Budget Item Justification

The Heavy Equipment Transporter System (HETS) is comprised of the M1070A1 Tractor and M1000 Trailer and is used to transport, recover, and evacuate a combat loaded M1 Series main battle tank, an M88, or similar heavy loads that are permitted for use on roads in US and overseas. The Enhanced Heavy Equipment Transporter System (EHETS) shall be capable of safely transporting current and future models of the heaviest tracked vehicles located within an Armored Brigade Combat Team (ABCT) in combat configuration with all current and projected mission attachments and survivability upgrades installed, with an additional 10% to allow for mud and ice build-up, and future growth of combat systems. The EHETS tractor/trailer will be capable of transporting ABRAMS SEPv2/3 with road permits and required force protection.

FY2018 Project 659 Base funds in the amount of $0.900 million will be used to complete Enhanced Heavy Equipment Transporter System (EHETS) documentation and beginning Milestone efforts in preparation for Engineering Manufacturing Development (EMD) Phase.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Title: EHETS System Engineer/Program Management Support (SEPM)	-	0.725	0.650
Description: SEPM includes PM and System Engineering oversight required to manage the program and provide contractor oversight. Salaries, Benefits, Travel, Personnel Training and other Government costs are included for retaining a professional acquisition workforce.			
FY 2017 Plans: Includes program management, engineering and budget support for EHET.			
FY 2018 Plans: Includes program management, engineering and budget support for EHET.			
Title: EHETS Development	-	0.261	0.250
Description: Perform Pre-Materiel Development Decision (Pre-MDD) Studies			
FY 2017 Plans:			

Exhibit R-2A, RDT&E Project Justification: FY 2018 Army		Date: May 2017
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** 659 / *Family Of Hvy Tac Veh*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Perform Whole Systems Trade Analysis (WSTA) and Dynamic Object Oriented Requirements System (DOORS) studies. ***FY 2018 Plans:*** Engineering testing, technical reports, and analysis			
Accomplishments/Planned Programs Subtotals	-	0.986	0.900

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
• 010: *Family of Heavy Tactical Vehicles (FHTV) DA0500*	30.849	45.686	107.530	-	107.530	83.204	76.073	-	-	0	343.342

Remarks

The EHETs program is expected to enter at Milestone B after completion of the AoA.

D. Acquisition Strategy

Based on the outcome of the Analysis of Alternatives (AoA), the Enhanced Heavy Equipment Transporter System (EHETS) acquisition will be full and open competition. Planned efforts include: Requirements Analysis (FY17-19), Request for Proposal (FY20), Source Selection Evaluation Board (FY20-21), Runoff Contract Award (FY21), Engineering and Manufacturing Development (EMD) Start (FY21), Government testing (FY23-24), Production Contract Award (FY25), and First Unit Equipped (FY27).

E. Performance Metrics

The costs, schedule and technical (performance) requirements are reviewed and compared to the Acquisition Program Baseline (APB) on a regular basis. Meetings are held monthly to review and discuss status of each program. Schedules are monitored by the respective Integrated Product Team (IPT) to oversee and compare progress to APB timelines via an Integrated Master Schedule (IMS) for each program. All technical requirements are tested and confirmed prior to start of production. In addition, each program has the ability to perform added tests during production as required to assure technical requirements are being met. The product office also uses Project Recon to perform risk management. The tool is designed to capture, manage, and link Risks, Issues, and Opportunities in a centralized database to create an integrated model that covers the entire program lifecycle.

Exhibit R-2A, RDT&E Project Justification: FY 2018 Army			Date: May 2017
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604622A / *Family of Heavy Tactical Vehicles*	Project (Number/Name) E50 / *TRAILER DEVELOPMENT*	

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
E50: *TRAILER DEVELOPMENT*	-	0.000	5.919	3.850	-	3.850	5.350	0.000	0.000	0.000	0.000	15.119
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Semi Trailer Low Bed (STLB) is a 25-ton payload capacity semi-trailer with a fixed goose neck, step deck, and rear loading ramps. The STLB is interoperable with a variety of trucks residing across the U.S. Army equipment inventory. The STLB will be introduced into a theater of operations to transport construction equipment (CE) employed by U.S. Army Engineers to execute horizontal and vertical construction projects in support of U.S. Military or other national goals and objectives. The STLB is employed to transport CE, miscellaneous equipment, disabled equipment, Class IV (construction materials), and logistical provisions. The STLB supports units in the execution of the following tasks: expand the lodgment, construction/upgrade/rehabilitation and maintenance of main supply routes (MSR), alternate supply routes (ASR), logistical facilities, bituminous roads, helipads, airfields, landing strips, motor pools, parking areas, etc. These types of facilities are required for sustainment operations during decisive action operations. The STLB will also be used during routine exercises/deployments, disaster relief, and other nation building operations. The STLB will be capable of supporting mobility, counter mobility, survivability, counter improvised and sustainment needs and all applicable North Atlantic Treaty Organization (NATO) interoperability criteria. The current 25-ton semi-trailers were manufactured in the 1968 to 1975 timeframe with an average age of 42 to 49 years. The Economic Useful Life (EUL) of the current trailer is 30-years. The existing semi-trailers have far exceeded their EUL and are becoming increasingly difficult to support due to spare parts obsolescence, resulting in decreased readiness.

FY18 Base funds in the amount of $3.850 million will be used to fund STLB limited performance and reliability testing, Source Selection Evaluation Board (SSEB), and Systems Engineering/Program Management (SEPM) support.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Title: Bid Sample Testing ***Description:*** Limited performance and reliability testing of trailers. ***FY 2018 Plans:*** This testing is a limited performance and reliability test of free bid sample trailers provided by potential offerors. The test results will be used in the Source Selection Evaluation Board (SSEB) to assist in the down-select.	-	-	2.740
Title: Source Selection Evaluation Board (SSEB) ***Description:*** Evaluate contractors for an Indefinite Delivery Indefinite Quantity (IDIQ) contract for prototype trailers. ***FY 2018 Plans:*** Conduct SSEB to award IDIQ contract to two contractors for prototype trailers for a run-off test.	-	-	0.500
Title: Systems Engineering/Program Management (SEPM) Support	-	1.899	0.610

Exhibit R-2A, RDT&E Project Justification: FY 2018 Army		Date: May 2017
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** E50 / *TRAILER DEVELOPMENT*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Description: SEPM includes PM and System Engineering oversight required to conduct requirements analysis, specification development, program management and contractor oversight. Salaries, Benefits, Travel, Personnel Training and other Government costs are included for retaining a professional acquisition workforce. ***FY 2017 Plans:*** Labor and travel support includes project management support for initiating project, systems engineering support for development of program documentation, budget/cost analyst support and travel costs to user rep locations to help understand and further define requirements. ***FY 2018 Plans:*** Includes program management, engineering and budget support for STLB.			
Title: Government Required Design and Development Efforts ***Description:*** Translate user requirements from Capability Production Document (CPD) to performance specifications. ***FY 2017 Plans:*** Whole Systems Trade Analysis (WSTA), Dynamic Object Oriented Requirements System (DOORS)	-	0.900	-
Title: Market Survey ***Description:*** Conduct market survey to determine availability of commercially built trailers to meet requirements. ***FY 2017 Plans:*** Conduct market survey to determine availability of commercially built trailers to meet requirements.	-	0.222	-
Title: Modification of Commercial Design by Original Equipment Manufacturer (OEM) ***Description:*** Systems engineering required to assess potential modifications to commercial trailer designs in order to meet military user requirements. ***FY 2017 Plans:*** Systems engineering required to assess potential modifications to commercial trailer designs in order to meet military user requirements.	-	2.898	-
Accomplishments/Planned Programs Subtotals	-	5.919	3.850

Exhibit R-2A, RDT&E Project Justification: FY 2018 Army		Date: May 2017
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** E50 / *TRAILER DEVELOPMENT*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
• Family of Heavy Tactical Vehicles: *Family of Heavy Tactical Vehicles (FHTV) DA0500*	30.849	45.686	107.530	-	107.530	83.204	76.073	-	-	0.000	343.342
• Semitrailers, Flatbed: *Semitrailers, Flatbed D01001*	0.053	7.896	14.151	-	14.151	6.489	27.094	24.781	25.140	0	105.604

Remarks

D. Acquisition Strategy

The Semi Trailer Low Bed (STLB) will be a full and open competition including bid sample testing. The Source Selection Evaluation Board (SSEB) will evaluate the proposals as well as bid sample test results. Planned events include: Pre-Materiel Development Decision (pre-MDD) efforts (FY17-18), Requirements Analysis (FY17-18), Request for Proposal Development (FY19), SSEB (FY19-20), Bid Sample Test of Multiple Original Equipment Manufacturers (FY19-20), Contract Award (FY20), Production Verification Test (FY20-21), First Unit Equipped (FY22).

E. Performance Metrics

The costs, schedule and technical (performance) requirements are reviewed and compared to the Acquisition Program Baseline (APB) on a regular basis. Meetings are held monthly to review and discuss status of each program. Schedules are monitored by the respective Integrated Product Team (IPT) to oversee and compare progress to APB timelines via an Integrated Master Schedule (IMS) for each program. All technical requirements are tested and confirmed prior to start of production. In addition, each program has the ability to perform added tests during production as required to assure technical requirements are being met. The product office also uses Project Recon to perform risk management. The tool is designed to capture, manage, and link Risks, Issues, and Opportunities in a centralized database to create an integrated model that covers the entire program lifecycle.

Exhibit R-2A, RDT&E Project Justification: FY 2018 Army			Date: May 2017
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604622A / *Family of Heavy Tactical Vehicles*	Project (Number/Name) VR5 / *TWV Protection Kits*	

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
VR5: *TWV Protection Kits*	-	0.000	4.524	5.757	-	5.757	5.752	5.923	3.917	4.209	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program element supports periodic, evolutionary upgrade of survivability and crew protection for Heavy Tactical Vehicles (HTV) and Medium Tactical Vehicles (MTV) as described in the Tactical Wheeled Vehicle (TWV) Strategy and individual variants' Capability Production Documents. The upgrades will leverage the Army Technology Objective's (ATO) survivability and Army Research Laboratory's (ARL) research and development activities to develop and evaluate kits which increase the protection level of all HTVs to the Mine-Resistant Ambush Protected (MRAP) protection level as well as anticipating changing threat environments, protection gaps, or improving the operating performance, efficiency, and reliability through armor weight reduction. This Program Element (PE) also supports increasing crew protection by leveraging advancements in autonomous ground vehicle technology via development and evaluation of autonomous applique kits that can be applied to the current and future HTV fleet.

The Heavy Dump Truck (HDT) supports construction projects by loading, transporting and dumping payloads of sand and gravel aggregates, crushed rock, hot asphalt mixes, earth, clay, rubble, large boulders and other materials up to gross vehicle weight rating to job sites under world-wide climatic conditions. The HDT also serves as a quarry truck for the quick transport of bulk raw earth material to and from the crushing, screening and washing plant and the asphalt mixing plant. The HDT also serves as a transportation asset for organizational equipment. The HDT is Long Term Armor Strategy (LTAS) compliant with MRAP 1.1 underbody protection.

Heavy Expanded Mobility Tactical Truck A4 (HEMTTA4) and Palletized Load System A1 (PLSA1) Suspension and Weapon Station Upgrade - There have been several survivability enhancements that have occurred since the HEMTT and PLS truck production program began. These enhancements did not incorporate measures to correct for automotive performance degradation that has occurred due to the additional mass of the survivability enhancements. Currently the HEMTTA4 and PLSA1 with top, side, underbody, fuel tank and RPG protection as well as the addition of a weapon station have overloaded the truck axles by 10-15% or more. To regain the original design performance and safety factors, new suspension components are required.

HEMTTA4/PLSA1 Underbody Armor Kit Technical Data Package (TDP) Conversion from Prototype-level to Production-level - HEMTTA4/PLS A1 Underbody Kits provide an MRAP-level of underbody blast protection for the HEMTT Fleet and was developed in response to a Joint Urgent Operational Needs Statement (JUONS). The kit contains additional underbody armor, blast attenuating seats, and energy absorbent flooring; adding 2,550 lbs. to the vehicle. This underbody armor kit augments the existing top and side B-Kit armor. HEMTT and PLS share a common cab design, therefore, the Underbody Armor Kit can be applied to both trucks. The conversion effort is required to procure kits in the future.

The M915A5 tractor truck manufactured by Daimler Trucks North America LLC is a prime mover of flatbed and tanker semi-trailers used primarily to transport containers, bulk cargo and petroleum products over primary and secondary roads and trails under worldwide climatic conditions. It has a diesel engine, automatic transmission, anti-lock brakes, air conditioning, and a fully sliding 36 inch fifth wheel. It has a Gross Vehicle Weight Rating (GVWR) of 66,000 lbs and is compatible with the following trailers: M872 (34-ton flatbed trailer), M871 (22-1/2 ton flatbed trailer), M127 (12-ton stake trailer), M967/969 (5000-gallon trailer), M1062 (7500-gallon trailer), M1062A1

Exhibit R-2A, RDT&E Project Justification: FY 2018 Army		Date: May 2017
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** VR5 / *TWV Protection Kits*

(9200-gallon trailer), MILVAN, and commercial trailers. The M915A5 has two configurations, a base armor-ready A-Cab and an up-armored B-Kit. M915A5 underbody Protection Kits are required to protect the line haul fleet from current and future threats and add protection to the B-kit configuration.

FY 2018 Project VR5 Base funds in the amount of $5.757 million will be used to develop Heavy Dump Truck (HDT) armor. It will also be used to fund the design, prototype, and testing of axle/suspension/weapon station upgrades for the HEMTTA4/PLSA1. To include the conversion of the HEMTTA4/PLSA1 Underbody Armor Kit TDP from Prototype-level to Production-level and Systems Engineering/Program Management (SEPM) support.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Title: Heavy Dump Truck (HDT) Armor Development ***Description:*** Develop HDT Armor ***FY 2017 Plans:*** Procure HDT armor test assets ***FY 2018 Plans:*** Develop HDT Armor - contractor to design/engineer armor solution	-	0.350	2.134
Title: HEMTTA4/PLSA1 Suspension and Weapon Station Upgrade ***Description:*** Design new HEMTTA4 and PLSA1 axle and suspension components and integrate protected weapon station. ***FY 2018 Plans:*** Conduct studies, modeling and simulation, and Computer Aided Design (CAD) model and drawing creation, and create bill of materiel.	-	-	1.273
Title: HEMTTA4/PLSA1 Suspension and Weapon Station Upgrade - Prototype Axle, Suspension, and Protected Weapon Station ***Description:*** Build prototypes of the new HEMTTA4 /PLSA1 axle, suspension and protected weapon station integration designs. ***FY 2018 Plans:*** Order and receive parts, verify quality and assemble.	-	-	1.000
Title: HEMTTA4/PLSA1 Suspension and Weapon Station Upgrade - Test ***Description:*** Test prototypes of the new HEMTTA4/PLSA1 axle, suspension and protected weapon station. ***FY 2018 Plans:*** Install axles, suspension and protected weapon station. Perform automotive testing.	-	-	0.500
Title: HEMTTA4/PLSA1 Underbody Armor Kit TDP Conversion - Convert TDP	-	-	0.270

Exhibit R-2A, RDT&E Project Justification: FY 2018 Army		Date: May 2017
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** VR5 / *TWV Protection Kits*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Description: Convert current TDP into standard TDP format for Government use. ***FY 2018 Plans:*** Includes review by Configuration Management Team, revisions to CAD and drawings, and standardization to current requirements.			
Title: HEMTTA4/PLSA1 Underbody Armor Kit TDP Conversion - Conduct Fit-up ***Description:*** Verification of TDP. ***FY 2018 Plans:*** Conduct virtual installation of kit onto HEMTTA4/PLSA1 truck cabs.	-	-	0.010
Title: HEMTTA4/PLSA1 Underbody Armor Kit TDP Conversion - Release TDP ***Description:*** Officially release TDP into the TACOM Release System and place under change control. ***FY 2018 Plans:*** Create folder structure and placement of data into Windchill by Configuration Management Team.	-	-	0.020
Title: Systems Engineering/Program Management (SEPM) Support ***Description:*** SEPM includes PM and System Engineering oversight required to manage the program and provide contractor oversight. Salaries, Benefits, Travel, Personnel Training and other Government costs are included for retaining a professional acquisition workforce. ***FY 2018 Plans:*** Includes program management, engineering and budget support for HDT and HEMTTA4/PLSA1 Suspension and Weapon Station Upgrade and TDP conversion.	-	-	0.550
Title: HDT System Engineering/Program Management (SEPM) Support ***Description:*** SEPM includes PM and System Engineering oversight required to conduct requirements analysis, specifications development, program management and contractor oversight. Salaries, Benefits, Travel, Personnel Training and other Government costs are included for retaining a professional acquisition workforce. ***FY 2017 Plans:***	-	0.250	-

Exhibit R-2A, RDT&E Project Justification: FY 2018 Army		Date: May 2017
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** VR5 / *TWV Protection Kits*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Includes labor support for management of project (i.e., cost, schedule, performance); engineering (Technical Data Package (TDP) update, test support); Product Assurance Test and Evaluation (PAT&E) support.			
Title: M915A5 Underbody Armor - SEPM ***Description:*** SEPM includes PM and System Engineering oversight required to conduct requirements analysis, specification development, program management and contractor oversight. Salaries, Benefits, Travel, Personnel Training and other government costs are included for retaining a professional acquisition workforce. ***FY 2017 Plans:*** Includes labor support for management of project (i.e., cost, schedule, performance, Type Classification/Full Materiel Release); engineering (Technical Data Package update, test support); logistics (including Validation/Verification-VAL/VER, mechanics, tech writer); provisioning, Product Support Integration Directorate (PSID) support; Product Assurance Test and Evaluation (PAT&E) support. Travel includes 3 trips--2 to witness testing and 1 to conduct the VAL/VER.	-	0.739	-
Title: M915A5 Underbody Armor - Test and Evaluation ***Description:*** Develop, test and evaluate Underbody Armor for the M915A5 ***FY 2017 Plans:*** Develop and test an MRAP-level armor underbody solution for the M915A5 fleet. Testing will include automotive and ballistic testing to achieve Full Materiel Release (FMR) for the armor kit.	-	3.185	-
Accomplishments/Planned Programs Subtotals	-	4.524	5.757

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
• 010: *Family of Heavy Tactical Vehicles (FHTV) (DA0500)*	30.849	45.686	107.530	-	107.530	83.204	76.073	-	-	0	343.342
• 014: *Tactical Wheeled Vehicle Protection Kits (D04003)*	44.292	150.905	43.040	-	43.040	44.420	48.252	49.531	50.250	0	430.690
• 008: *Family Of Medium Tactical Veh (FMTV) (D15500)*	334.038	352.769	78.650	-	78.650	98.231	198.312	193.404	182.838	0	1,438.242
• 007: *Truck, Dump, 20T (CCE) (D16001)*	45.658	3.927	0.967	-	0.967	9.911	29.870	60.466	61.343	0	212.142

Exhibit R-2A, RDT&E Project Justification: FY 2018 Army		Date: May 2017
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604622A / *Family of Heavy Tactical Vehicles*	**Project (Number/Name)** VR5 / *TWV Protection Kits*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

Heavy Dump Truck (HDT) Armor:
Overall strategy includes a contract to one Original Equipment Manufacturer (OEM) to develop an armor solution for a commercial dump truck. The commercial dump truck (capable of being armored) will be produced prior to the development of this armor solution. This armored solution will be tested prior to approval for build to incorporate to the HDT production. The armored HDT will be procured after successful completion of the armor live fire test in FY21.

Heavy Expanded Mobility Tactical Truck A4 (HEMTTA4) and Palletized Load System A1 (PLSA1) Suspension and Weapon Station Upgrade:
FY18 funds will be used to design, develop, prototype and test new axle, suspension components, and protected weapon station components. The new components will be tested and approved to be released as a stand-alone kit or revision to the current underbody armor kit (aka C-Kit).

HEMTTA4/PLSA1 Underbody Armor Kit Technical Data Package (TDP) Conversion from Prototype-level to Production-level:
FY18 funds will be used to convert and release a Production-level TDP. When complete, the kit can be procured.

E. Performance Metrics

The costs, schedule and technical (performance) requirements are reviewed and compared to the Acquisition Program Baseline (APB) on a regular basis. Meetings are held monthly to review and discuss status of each program. Schedules are monitored by the respective Integrated Product Team (IPT) to oversee and compare progress to APB timelines via an Integrated Master Schedule (IMS) for each program. All technical requirements are tested and confirmed prior to start of production. In addition, each program has the ability to perform added tests during production as required to assure technical requirements are being met. The product office also uses Project Recon to perform risk management. The tool is designed to capture, manage, and link Risks, Issues, and Opportunities in a centralized database to create an integrated model that covers the entire program lifecycle.