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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2021 Army **Date:** February 2020

<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 7: Operational Systems Development</i>					<b>R-1 Program Element (Number/Name)</b> PE 0607136A / <i>Blackhawk Product Improvement Program</i>							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	-	33.906	23.039	11.236	-	11.236	5.227	0.000	0.000	0.000	Continuing	Continuing
ES3: <i>Blackhawk Product Improvement Program</i>	-	33.906	23.039	11.236	-	11.236	5.227	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

**UH-60V:**

The H-60L Digital Blackhawk, now designated as UH-60V, is designed to update the existing H-60L analog architecture to a digital infrastructure enabling the upgraded aircraft to have a similar Pilot-Vehicle Interface (PVI) to the H-60M. The program will address current capability gaps and meet operational requirements by employing an evolutionary acquisition approach to leverage mature technologies that have been successfully integrated on other military aircraft. The program will reduce obsolescence and increase commonality and interoperability by installing a digital cockpit, bussing and upgrading the communication/identification suite, improving navigation guidance, and integrating Aircraft Survivability Equipment (ASE), digital moving map, and Joint Variable Message Format (JVMF) messaging. Continuing funding will provide hardware and software development, training material development, as well as developmental and operational testing.

**MEDEVAC:**

Beginning in Fiscal Year (FY) 2019, Research Development Technology & Evaluation (RDT&E) funding will also support non-recurring engineering to integrate and qualify MEDEVAC Mission Equipment Package (MEP) into the UH-60V Black Hawk helicopter. This MEDEVAC MEP integration effort is independent of the UH-60V Program of Record and Acquisition Program Baseline (APB). The Surgeon General (TSG) has a requirement for a MEDEVAC capability provided by Black Hawk helicopters that were not initially produced for MEDEVAC, but are designated to support the MEDEVAC mission. In accordance with AR 40-60 Medical Materiel Acquisition Policy, the Program Executive Office for Aviation (PEOAVN) is responsible for the costs associated with medical MEP integration on Black Hawk helicopters that were not initially produced for MEDEVAC, but require medical MEP modifications/upgrades to support the MEDEVAC mission. MEDEVAC MEP integration on the UH-60V will address obsolescence and reduce the logistics footprint by increasing equipment commonality across the MEDEVAC fleet and will reduce the number of Black Hawk MEDEVAC configurations. Additionally, UH-60V MEDEVAC capabilities will increase when comparing MEDEVAC MEP integration on legacy Black Hawk helicopters. Capability improvements will include simultaneous Rescue Hoist and extended range capability, enabled MEDEVAC Mission Sensor (MMS) use in Arctic conditions, UH-60V Multi-Function Display (MFD) integrated MMS video, and Multi-Function Controller Unit (MFCU) integration of MMS functions.

Independent of the UH-60V Program of Record and Acquisition Program Baseline (APB), incremental RDT&E funding to support integration of a MEDEVAC capability on UH-60V is planned for FY 2019-2022. In accordance with AR 40-60, Medical Materiel Acquisition Policy, the Army's Aeromedical Evacuation capability is funded by two portfolio managers, PEOAVN and the Medical Research Development Command, MRDC. PEOAVN is responsible for the integration of MEDEVAC MEP on the UH-60V. MRDC is responsible for recurring costs to procure kits and resource the installation of MEP kits on UH-60V MEDEVAC helicopters.

**SATCOM:**

Development and Integration of an airworthiness satellite communications for better coordination, information sharing and situational awareness/situational understanding on UH/HH-60 aircraft.

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<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0607136A / <i>Blackhawk Product Improvement Program</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>
Previous President's Budget	35.196	13.039	11.247	-	11.247
Current President's Budget	33.906	23.039	11.236	-	11.236
Total Adjustments	-1.290	10.000	-0.011	-	-0.011
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	10.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-1.290	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-0.011	-	-0.011

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 Army										<b>Date:</b> February 2020		
<b>Appropriation/Budget Activity</b> 2040 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0607136A / <i>Blackhawk Product Improvement Program</i>				<b>Project (Number/Name)</b> ES3 / <i>Blackhawk Product Improvement Program</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
ES3: <i>Blackhawk Product Improvement Program</i>	-	33.906	23.039	11.236	-	11.236	5.227	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

**UH-60V:**

The H-60L Digital Blackhawk, now designated as UH-60V, is designed to update the existing H-60L analog architecture to a digital infrastructure enabling the upgraded aircraft to have a similar Pilot-Vehicle Interface (PVI) to the H-60M. The program will address current capability gaps and meet operational requirements by employing an evolutionary acquisition approach to leverage mature technologies that have been successfully integrated on other military aircraft. The program will reduce obsolescence and increase commonality and interoperability by installing a digital cockpit, bussing and upgrading the communication/identification suite, improving navigation guidance, and integrating Aircraft Survivability Equipment (ASE), digital moving map, and Joint Variable Message Format (JVMF) messaging. Continuing funding will provide hardware and software development, training material development, as well as developmental and operational testing.

**MEDEVAC:**

Beginning in Fiscal Year (FY) 2019, Research Development Technology & Evaluation (RDT&E) funding will also support non-recurring engineering to integrate and qualify MEDEVAC Mission Equipment Package (MEP) into the UH-60V Black Hawk helicopter. This MEDEVAC MEP integration effort is independent of the UH-60V Program of Record and Acquisition Program Baseline (APB). The Surgeon General (TSG) has a requirement for a MEDEVAC capability provided by Black Hawk helicopters that were not initially produced for MEDEVAC, but are designated to support the MEDEVAC mission. In accordance with AR 40-60 Medical Materiel Acquisition Policy, the Program Executive Office for Aviation (PEOAVN) is responsible for the costs associated with medical MEP integration on Black Hawk helicopters that were not initially produced for MEDEVAC, but require medical MEP modifications/upgrades to support the MEDEVAC mission. MEDEVAC MEP integration on the UH-60V will address obsolescence and reduce the logistics footprint by increasing equipment commonality across the MEDEVAC fleet and will reduce the number of Black Hawk MEDEVAC configurations. Additionally, UH-60V MEDEVAC capabilities will increase when comparing MEDEVAC MEP integration on legacy Black Hawk helicopters. Capability improvements will include simultaneous Rescue Hoist and extended range capability, enabled MEDEVAC Mission Sensor (MMS) use in Arctic conditions, UH-60V Multi-Function Display (MFD) integrated MMS video, and Multi-Function Controller Unit (MFCU) integration of MMS functions.

Independent of the UH-60V Program of Record and Acquisition Program Baseline (APB), incremental RDT&E funding to support integration of a MEDEVAC capability on UH-60V is planned for FY 2019-2022. In accordance with AR 40-60, Medical Materiel Acquisition Policy, the Army's Aeromedical Evacuation capability is funded by two portfolio managers, PEOAVN and the Medical Research Development Command, MRDC. PEOAVN is responsible for the integration of MEDEVAC MEP on the UH-60V. MRDC is responsible for recurring costs to procure kits and resource the installation of MEP kits on UH-60V MEDEVAC helicopters.

**SATCOM:**

Development and Integration of an airworthiness satellite communications for better coordination, information sharing and situational awareness/situational understanding on UH/HH-60 aircraft

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<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607136A / <i>Blackhawk Product Improvement Program</i>	<b>Project (Number/Name)</b> ES3 / <i>Blackhawk Product Improvement Program</i>				
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>						
		<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>
<b>Title:</b> UH-60V Product Development		8.486	1.179	-	-	-
<b>Description:</b> The UH-60V program provides an integrated digital map, integrated performance planning, common functionality and commonality of training with UH-60M. Product Development includes all activities related to Hardware and Software development, Prototype Manufacturing (3 units), Training Equipment, Data, and Production Engineering and Planning for the UH60V program. Examples of specific activities include drawing development, work instruction development, prototype builds, Preliminary Design Review (PDR)/Critical Design Review (CDR), Software Engineering Directorate (SED) Simulation Integration Laboratory (SIL) design, Software Development (aircraft and off aircraft), trainers, and training material development.						
<b>FY 2020 Plans:</b> Continued 60V Engineering and Manufacturing Development (EMD) efforts including hardware development and Prototype Integration Facility (PIF) labor in support of 60V development.						
<b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> No FY 2021 funding request due to the close out of UH-60V Development Activities.						
<b>Title:</b> UH-60V Support		3.348	1.349	0.424	-	0.424
<b>Description:</b> Support Costs include Systems Engineering/Program Management (SEPM) type activities performed at the PIF. This includes Army Engineering Directorate (AED) support for propulsion, structures, aeromechanics, mission equipment, as well as PIF program management.						
<b>FY 2020 Plans:</b> Continued AED support for propulsion, structures, aeromechanics, mission equipment, SED SIL Support, Air Worthiness Release (AWR), and Logistics Demonstration as well as PIF program management.						
<b>FY 2021 Base Plans:</b> Support of UH-60V Publication and Verification post Initial Operational Test and Evaluation (IOT&E).						
<b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> FY 2021 funding decrease is due to the closing out of UH-60V Development Activities.						
<b>Title:</b> UH-60V Management Services		1.145	0.681	0.126	-	0.126
<b>Description:</b> Management Services includes all activities related to Government/Contractor SEPM to include the cost of Government and Contractor personnel supporting the UH-60V program.						

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>						
		<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>
<p><b>FY 2020 Plans:</b> Continued core and contractor SEPM activities in support of UH-60V.</p> <p><b>FY 2021 Base Plans:</b> UH-60V Publication and Verification post IOT&amp;E.</p> <p><b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> FY 2021 funding decrease is due to the closing out of UH-60V Development Activities.</p>						
<p><b>Title:</b> UH-60V Test &amp; Evaluation</p> <p><b>Description:</b> The Utility Helicopters Project Office (UHPO) is responsible for day-to-day test management activities to include execution of all developmental tests and support of operational tests for the UH-60V Program. The focal point for test management is the UH-60V Test Lead Engineer who is the chair for the UH-60V Test and Evaluation (T&amp;E) Working-level Integrated Product Team. The UH-60 T&amp;E team ensures integration and coordination of test and data requirements among all agencies involved in the test and acquisition of the UH-60V effort. T&amp;E activities include: AFTD Baseline Flight Testing, IOTE, Cybersecurity and Interoperability tests.</p> <p><b>FY 2020 Plans:</b> Electromagnetic Vulnerability (EMV) testing and evaluation.</p> <p><b>FY 2021 Base Plans:</b> UH-60V Publication and Verification post IOT&amp;E.</p> <p><b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> FY 2021 funding decrease is due to the closing out of UH-60V Development Activities.</p>		4.475	1.603	1.021	-	1.021
<p><b>Title:</b> MEDEVAC MEP Integration Product Development</p> <p><b>Description:</b> MEDEVAC MEP Integration Product Development.</p> <p><b>FY 2020 Plans:</b> Continued executing contract with PIF Contractor to perform Hardware (HW) design and Software (SW) Design activities for H-60V MEDEVAC MEP Integration effort.</p> <p><b>FY 2021 Base Plans:</b></p>		14.131	5.383	4.886	-	4.886

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>					
	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>
Continue executing contract with PIF Contractor to perform HW design and SW Design activities for H-60V MEDEVAC MEP Integration effort.					
<b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> Cost decrease due to transitioning to Test and Evaluation.					
<b>Title:</b> MEDEVAC MEP Integration Support					
<b>Description:</b> Support the HW and SW Design Activities with Airworthiness and Technical data division support.					
<b>FY 2020 Plans:</b> Supported the HW and SW Design Activities with Airworthiness and Technical data division support.					
<b>FY 2021 Base Plans:</b> Support the hardware and software Design Activities with Airworthiness and Technical data division support.					
<b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> Increase in funding from FY 2020 to FY 2021 due to economic adjustments.					
	0.592	0.518	0.592	-	0.592
<b>Title:</b> MEDEVAC MEP Management Services					
<b>Description:</b> Management Services includes all activities related to Government/Contractor SEPM to include the cost of Government and Contractor personnel supporting the H-60V MEDEVAC MEP Integration Program.					
<b>FY 2020 Plans:</b> Provided Management Services with Government / Contractor SEPM to include the cost of the Government and contractor personnel supporting the H-60V MEDEVAC MEP Integration Program.					
<b>FY 2021 Base Plans:</b> Provide Management Services with Government / Contractor SEPM to include the cost of the Government and contractor personnel supporting the H-60V MEDEVAC MEP Integration Program.					
<b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> Cost decrease due to the transition from Product Development to Test and Evaluation and Logistics activities.					
	1.729	1.808	1.662	-	1.662
<b>Title:</b> MEDEVAC Test & Evaluation					
<b>Description:</b> The UHPO is responsible for Day-to-day test management activities to include the execution of all developmental tests for the UH-60V MEDEVAC Program. As part of this responsibility, UHPO manages the Test and Evaluation working group with a UH-60V MEDEVAC Test lead. They ensure the test agencies are					
	-	-	2.525	-	2.525

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

	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
<p>coordinated, test plans are created, instrumentation is developed and installed and airworthiness approvals are obtained. They status the testing throughout the program, assist in resolving issues, and coordinate approval of the test data and test reports. For this effort the UHPO will manage system level testing necessary to receive a fielding AWR, including aircraft level Electromagnetic Compatibility (EMC) Testing, Noise Floor Testing, Electromagnetic Vulnerability (EMV) Testing, Ground system checkouts of the FLIR, Hoist and IMMSS, and Flight testing of the FLIR, Hoist and IMMSS.</p> <p><b>FY 2021 Base Plans:</b> MEDEVAC plans to implement funding at the Redstone Test Center (RTC) to perform aircraft level EMC, noise floor, EMV and flight testing. The flight testing will focus on proper operation of the FLIR and the new Pilot Vehicle Interface (PVI) for the FLIR / Geopoint &amp; Geolocate functionality. It will also focus on safe operation of the hoist with payload. This effort will be managed by UHPO PD MEDEVAC.</p> <p><b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> MEDEVAC Test and Evaluation begins in FY 2021.</p>					
<p><b>Title:</b> SATCOM</p> <p><b>Description:</b> SATCOM: Development and Integration of an airworthiness satellite communications for better coordination, information sharing and situational awareness/situational understanding on UH/HH-60 aircraft</p> <p><b>FY 2020 Plans:</b> Integration and airworthiness of SATCOM solution on the UH/HH-60 aircraft.</p> <p><b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> No FY 2021 funding requested due to the closeout of the SATCOM integration and development activities.</p>	-	9.926	-	-	-
<p><b>Title:</b> FY 2020 SBIR/STTR Transfer</p> <p><b>Description:</b> Funding transferred in accordance with Title 15 USC ?638</p> <p><b>FY 2020 Plans:</b> Funding transferred in accordance with Title 15 USC ?638</p> <p><b>FY 2020 to FY 2021 Increase/Decrease Statement:</b></p>	-	0.592	-	-	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Funding transferred in accordance with Title 15 USC ?638					
<b>Accomplishments/Planned Programs Subtotals</b>	33.906	23.039	11.236	-	11.236

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021 Base</u>	<u>FY 2021 OCO</u>	<u>FY 2021 Total</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• A05009: <i>UH-60 Black Hawk L and V Models</i>	148.138	169.290	172.797	-	172.797	173.460	174.482	153.116	156.614	0.000	1,147.897
• MN1000: <i>Combat Support Medical</i>	102.765	101.351	59.485	6.390	65.875	97.194	44.114	74.823	81.457	0.000	567.579

**Remarks**  
 MN1000, MEDEVAC MEP provides procurement funding for MEDEVAC MEP capability on UH-60 helicopters. Per requirements, starting in FY 2022, MN1000 will resource procurement of MEDEVAC MEP kits and installations at a rate of 15 aircraft per year through FY 2034, which is the estimated year the AAO of 200 UH-60V MEDEVAC is reached. Figures shown above reflect the full MN1000 - OPA3/MN1000/Combat Support Medical funding line, which includes the production kits and MEP installation costs at CCAD. UH-60V MEDEVAC MEP MN1000 OPA requirements are \$5.7 million in FY 2022, \$6.1 million in FY 2023, and \$6.1 million in FY 2024. Total MEDEVAC MEP requirement in MN1000 through FY 2034 is \$88.1M.

**D. Acquisition Strategy**  
 The UH-60V program plans to leverage the Prototype Integration Facility (PIF), a Government Owned Government Operated (GOGO) facility, to design, integrate and build three production representative aircraft. The GOGO facility uses a cost plus contract vehicle and conducted full and open competition for the selection of the avionics solution provider.

Independent of the UH-60V Program of Record and Acquisition Program Baseline (APB), the MEDEVAC MEP program plans to utilize the U. S. Army Combat Capabilities Development Command (CCDC) Aviation and Missile Center (AvMC) and PIF to design and integrate MEDEVAC capability into the UH-60V. By leveraging the same GOGO facility utilized by the UH-60V program, efficient design, software development, integration, and testing will occur by eliminating redundant tasks and employing experienced government resources already in possession of pertinent UH-60V technical data required to support the MEDEVAC MEP non-recurring engineering (NRE) effort. Prototype, validation, and verification of technical publications, as well as airworthiness testing will be accomplished following completion of the UH-60V IOT&E, at which time up to two UH-60V EDM aircraft will be allocated to the MEDEVAC MEP program. Following completion of MEDEVAC MEP NRE, technical products will feed production and fielding contracts, which will be resourced by the U.S. Army Medical Department, AMEDD. Procurement funding is programmed on MN1000 Combat Support Medical, G13010 MEDEVAC MEP.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Army** **Date:** February 2020

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<b>Management Services (\$ in Millions)</b>				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
UH-60V - Organic	MIPR	Various : Redstone Arsenal, AL	11.448	0.483	Oct 2018	0.246	Oct 2019	0.126	Oct 2020	-		0.126	0.000	12.303	-
UH-60V - Contractor	C/LH	Various : Redstone Arsenal, AL	8.985	0.662	Oct 2018	0.391	Oct 2019	-		-		-	0.000	10.038	-
MEDEVAC MEP Integration - Organic	MIPR	Various : Redstone Arsenal	-	1.024	Oct 2018	0.985	Oct 2019	1.033	Oct 2020	-		1.033	Continuing	Continuing	-
MEDEVAC MEP Integration - Contractor	C/LH	Various : Redstone Arsenal, AL	-	0.705	Oct 2018	0.777	Oct 2019	0.629	Oct 2020	-		0.629	Continuing	Continuing	-
FY 2020 SBIR/STTR Transfer	TBD	Various : Various	-	-		0.592		-		-		-	0.000	0.592	-
<b>Subtotal</b>			20.433	2.874		2.991		1.788		-		1.788	Continuing	Continuing	N/A

<b>Product Development (\$ in Millions)</b>				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
UH-60V Development Engineering	C/CPFF	CCDC AvMC, PIF : Redstone Arsenal, AL	160.791	8.486	Oct 2018	1.194	Oct 2019	-		-		-	0.000	170.471	-
MEDEVAC MEP Product Development and Integration	C/CPFF	CCDC AvMC, PIF : Redstone Arsenal AL	-	14.131	Oct 2018	5.398	Oct 2019	4.886	Oct 2020	-		4.886	Continuing	Continuing	-
SATCOM	TBD	To Be Determined : Redstone Arsenal AL	-	-		9.941	Jul 2020	-		-		-	0.000	9.941	-
<b>Subtotal</b>			160.791	22.617		16.533		4.886		-		4.886	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
UH-60V	MIPR	Various : Redstone Arsenal, AL	12.785	3.348	Oct 2018	1.364	Oct 2019	0.424	Oct 2020	-		0.424	0.000	17.921	-

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<b>Support (\$ in Millions)</b>				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
MEDEVAC MEP Integration Support	MIPR	Various : Redstone Arsenal AL	-	0.592	Oct 2018	0.533	Oct 2019	0.592	Oct 2020	-		0.592	Continuing	Continuing	-
<b>Subtotal</b>			12.785	3.940		1.897		1.016		-		1.016	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
UH-60V	MIPR	Redstone Test Center : Redstone Arsenal, AL	11.615	4.475	Oct 2018	1.618	Oct 2019	1.021	Oct 2020	-		1.021	0.000	18.729	-
MEDEVAC	MIPR	Redstone Test Center : Redstone Arsenal, AL	-	-		-		2.525	Oct 2020	-		2.525	Continuing	Continuing	-
<b>Subtotal</b>			11.615	4.475		1.618		3.546		-		3.546	Continuing	Continuing	N/A

**Remarks**  
Government Support

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract	
	<b>Project Cost Totals</b>		205.624	33.906	23.039	11.236	-	11.236	Continuing	Continuing

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2021 Army</b>		<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607136A / <i>Blackhawk Product Improvement Program</i>	<b>Project (Number/Name)</b> ES3 / <i>Blackhawk Product Improvement Program</i>

Event Name	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025			
	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
UH-60V Development (Research, Development, Test, and Evaluation)	UH-60V EMD (Product Development)																											
UH-60V Support (RDTE)	Support																											
UH-60V Test and Evaluation (RDTE)	Test and Evaluation																											
UH-60V Management Services (RDTE)	Management Services																											
UH-60V Future Integration Efforts (RDTE)									Integration																			
UH-60V Digital Modifications (Low Rate Initial Production (LRIP))	UH-60V LRIP																											
UH-60V Digital Modifications Full Rate Production (APA) (FY22-FY36)													UH-60V Production (FY22-FY36)															
MEDEVAC MEP Integration Management Services (RDTE)	MEDEVAC MEP Integration Management Services																											
MEDEVAC MEP Product Development and Integration (RDTE)	MEDEVAC MEP Product Development and Integration																											
MEDEVAC MEP Integration Support (RDTE)					MEDEVAC MEP Integration Support																							
MEDEVAC MEP Integration Test and Evaluation (RDTE)									MEDEVAC MEP Integration Test and Evaluation																			
Satellite Communications Integration Development									SATCOM Integration Development																			

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2021 Army		<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607136A / <i>Blackhawk Product Improvement Program</i>	<b>Project (Number/Name)</b> ES3 / <i>Blackhawk Product Improvement Program</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
UH-60V Development (Research, Development, Test, and Evaluation (RDTE))	4	2014	4	2020
UH-60V Support (RDTE)	1	2014	4	2021
UH-60V Test and Evaluation (RDTE)	4	2015	4	2021
UH-60V Management Services (RDTE)	1	2014	4	2021
UH-60V Future Integration Efforts (RDTE)	1	2021	4	2022
UH-60V Digital Modifications (Low Rate Initial Production (LRIP); (APA))	4	2018	4	2021
UH-60V Digital Modifications Full Rate Production (APA) (FY22-FY36)	1	2022	4	2036
MEDEVAC MEP Integration Management Services (RDTE)	1	2019	4	2022
MEDEVAC MEP Product Development and Integration (RDTE)	1	2019	4	2022
MEDEVAC MEP Integration Support (RDTE)	4	2019	4	2022
MEDEVAC MEP Integration Test and Evaluation (RDTE)	2	2021	4	2022
Satellite Communications Integration Development	4	2020	4	2021