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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Air Force **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0102110F / <i>UH-1N Replacement Program</i>
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	547.421	34.524	16.132	17.922	0.000	17.922	27.945	9.003	9.702	0.000	27.144	689.793
672021: <i>MH-139A</i>	547.421	34.524	16.132	9.818	0.000	9.818	19.506	0.000	0.000	0.000	0.000	627.401
672023: <i>MH-139A PE/PI</i>	0.000	0.000	0.000	8.104	0.000	8.104	8.439	9.003	9.702	0.000	27.144	62.392

**Program MDAP/MAIS Code:** 562

**Note**

This program, BA 7, PE 0102110F, project , MH-139A Performance Enhancements, is a new start.  
 This program, BA 7, PE 0102110F, project , MH-139A Government Test Planning, Test and Evaluation, is a new start.

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

The MH-139A Grey Wolf will replace the Air Force fleet of UH-1N aircraft, and offers a significant capability increase in areas of speed, range, endurance, payload, and survivability. The Air Force will acquire 80 MH-139A helicopters, training devices, and associated support equipment. The MH-139A will provide vertical airlift and support four Air Force Major Commands (MAJCOMs) and other operating agencies: Air Force Global Strike Command (AFGSC), Air Education and Training Command (AETC), Air Force Materiel Command (AFMC), Air Force Reserve Command, and the Air Force District of Washington (AFDW). AFGSC is the Air Force lead command and operational capability requirements sponsor.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver the MH-139A weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program elements 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2021 \$4.782 million was expended for civilian pay expenses in this program element, and in FY 2022 \$5.600 million is forecasted for civilian pay expenses in this program element.

This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Air Force	<b>Date:</b> April 2022
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<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0102110F / <i>UH-1N Replacement Program</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	41.388	16.132	0.000	0.000	0.000
Current President's Budget	34.524	16.132	17.922	0.000	17.922
Total Adjustments	-6.864	0.000	17.922	0.000	17.922
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-6.000	0.000			
• SBIR/STTR Transfer	-0.864	0.000			
• Other Adjustments	0.000	0.000	17.922	0.000	17.922

**Change Summary Explanation**

FY 2021 funding was reduced by a total of \$6.864 million which included a \$6.000 million reprogramming action for higher Air Force priorities and \$0.864 million for Small Business Innovation Research.

The FY 2022 President's Budget submittal did not reflect FY 2023 through FY 2026 funding. Therefore, an explanation of the change between the two budget positions for FY 2023 cannot be made in a relevant manner.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Air Force **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0102110F / UH-1N Replacement Program	<b>Project (Number/Name)</b> 672021 / MH-139A
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
672021: MH-139A	547.421	34.524	16.132	9.818	0.000	9.818	19.506	0.000	0.000	0.000	0.000	627.401
Quantity of RDT&E Articles	6	-	-	-	-	-	-	-	-	-	-	-

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

The MH-139A program will replace the Air Force fleet of UH-1N aircraft with modern helicopters that will close significant mission capability gaps associated with the current fleet of UH-1N aircraft. The replacement aircraft will provide vertical airlift and support the requirements of four Air Force major commands and operating agencies: Air Force Global Strike Command (AFGSC), Air Force District of Washington (AFDW), Air Education and Training Command (AETC), and Air Force Material Command (AFMC). AFGSC is the Air Force lead command and operational capability requirements sponsor. This program is an element of the Air Force's nuclear enterprise reform initiatives.

Program includes, but is not limited to, continued funding for four test aircraft and two System Demonstration Test Article (SDTA) aircraft, support equipment, Interim Contractor Support (ICS), training system devices, Type I training and courseware, non-developmental item (NDI) integration, cyber test articles, associated Government support activities, remedy of Demonstration Test (DT) deficiencies, and permits for future performance enhancements activities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver the MH-139A weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program elements 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2021 \$4.782 million was expended for civilian pay expenses in this program element, and in FY 2022 \$5.600 million is forecasted for civilian pay expenses in this program element.

MH-139A funding also supports innovation activities to include studies, analyses, requirements definition, and quick-reaction capability prototypes/demonstrations to accelerate planning for technology transition, technology insertion and future acquisition programs.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<b>Title:</b> MH-139 Development	28.614	14.360	5.618	0.000	5.618
<b>Description:</b> Development of MH-139A helicopter and integration of non-developmental item (NDI) hardware, software, and other capabilities into aircraft system, training systems, support elements and technical/manufacturing baselines to achieve MH-139A operational capability requirements.					
<b>FY 2022 Plans:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Air Force		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0102110F / UH-1N Replacement Program	<b>Project (Number/Name)</b> 672021 / MH-139A

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<p>Continue systems engineering efforts, government oversight, contractor and government systems engineering tasks and management services. Complete conditional DD-250 aircraft acceptance and initial military flight release.</p> <p><b>FY 2023 Base Plans:</b> Conclude systems engineering efforts, government oversight, contractor and government systems engineering tasks and management services. Continue preparation for MS-C, production LRIP order 1, and Military type certificate.</p> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding decreased due to reduction in development efforts as MS-C is approached and decrease in Program Support Costs (PSC) as program transitions to Procurement funding.</p>					
<p><b>Title:</b> MH-139 Government Test and Evaluation</p> <p><b>Description:</b> System and subsystem test and evaluation and remedy of DT deficiencies of the MH-139 solution.</p> <p><b>FY 2022 Plans:</b> Continue LFT&amp;E, DT and OA, and OT support execution.</p> <p><b>FY 2023 Base Plans:</b> Complete LFT&amp;E, DT and transition to OA, and OT support execution.</p> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding increased due to increased subsystem testing, evaluation and remedy of DT deficiencies prior to OT.</p>	5.910	1.772	4.200	0.000	4.200
<b>Accomplishments/Planned Programs Subtotals</b>	34.524	16.132	9.818	0.000	9.818

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force										Date: April 2022	
Appropriation/Budget Activity 3600 / 7				R-1 Program Element (Number/Name) PE 0102110F / UH-1N Replacement Program				Project (Number/Name) 672021 / MH-139A			

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

Line Item	FY 2021	FY 2022	FY 2023	FY 2023	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Cost To	
			Base	OCO	Total					Complete	Total Cost
• APAF 04 Line Item H0106O: <i>UH-1N Replacement</i>	194.016	141.360	156.192	-	156.192	282.143	420.714	537.747	356.119	776.363	2,864.654
• APAF 06 Line Item H0106O: <i>UH-1N Replacement Initial Spares/Repair Parts</i>	18.389	0.000	11.253	-	11.253	31.256	34.085	28.292	23.685	55.651	202.611
• MILCON 0: <i>UH-1N Replacement - Primary Facility</i>	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Remarks**

**D. Acquisition Strategy**

The Air Force intends to procure an airworthiness-certified baseline helicopter that requires non-developmental item integration (e.g. Electro-Optical/Infrared Sensor, personnel recovery hoists, cockpit/cabin armor, etc.) and training systems to meet all operational capability requirements. The MH-139A acquisition approach is a single step to full capability. This provision is reflected in the acquisition strategy underpinning the basic contract and its pre-priced options. The current program scope is compliant with the requirements basis in the UH-1N Replacement CPD. The MH-139A program entered at pre-MS C to allow interested offerors an opportunity to integrate NDI into their existing, airworthiness-certified baseline AV to meet all UH-1N Replacement requirements. The system will consist of non-proprietary or suitably licensed components and leverage non-developmental software to the extent possible within the constraints of the chosen system. Specific acquisition and contracting strategies for RDT&E funded integration tasks and the test and evaluation program will be determined as part of the overall program strategy.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0102110F / UH-1N Replacement Program	<b>Project (Number/Name)</b> 672021 / MH-139A
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<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
MH-139 weapon system integration and type/airworthiness certification	C/FFP	Boeing : Philadelphia, PA	469.741	3.809	Dec 2020	6.295	Dec 2021	0.821	Dec 2022	-		0.821	1.000	481.666	-
<b>Subtotal</b>			469.741	3.809		6.295		0.821		-		0.821	1.000	481.666	N/A

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
MH-139 Other Government Costs	C/Various	Various : TBD	11.705	8.272	Jan 2021	1.965	Jan 2022	1.255	Jan 2023	-		1.255	2.925	26.122	-
MH-139 Direct Cite Authority CIV Pay	C/Various	Various : TBD	4.782	4.832	Jan 2021	5.600	Jan 2022	3.542	Jan 2023	-		3.542	3.000	21.756	-
<b>Subtotal</b>			16.487	13.104		7.565		4.797		-		4.797	5.925	47.878	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
MH-139 live fire, developmental, and operational test and evaluation, planning and technical support	Various	Various : TBD	32.159	5.910	Dec 2020	1.772		4.200	Dec 2022	-		4.200	11.381	55.422	-
<b>Subtotal</b>			32.159	5.910		1.772		4.200		-		4.200	11.381	55.422	N/A





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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Air Force		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0102110F / UH-1N Replacement Program	<b>Project (Number/Name)</b> 672021 / MH-139A

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>MH-139A Program</i></b>				
MH-139A NDI Contract	1	2021	4	2023
Test and Evaluation	1	2021	4	2024
System/Subsystem Test and Integration	1	2021	1	2023
Weapon System Integration	1	2021	1	2023
Milestone C	2	2023	3	2023

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Air Force										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 3600 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0102110F / UH-1N Replacement Program				<b>Project (Number/Name)</b> 672023 / MH-139A PE/PI			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
672023: MH-139A PE/PI	0.000	0.000	0.000	8.104	0.000	8.104	8.439	9.003	9.702	0.000	27.144	62.392
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

This program, BA 7, PE 0102110F, project , MH-139A Performance Enhancements, is a new start.  
 This program, BA 7, PE 0102110F, project , MH-139A Government Test Planning, Test and Evaluation, is a new start.

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

The MH-139A program will replace the Air Force fleet of UH-1N aircraft with modern helicopters that will close significant mission capability gaps associated with the current fleet of UH-1N aircraft. The replacement aircraft will provide vertical airlift and support the requirements of four Air Force major commands and operating agencies: Air Force Global Strike Command (AFGSC), Air Force District of Washington (AFDW), Air Education and Training Command (AETC), and Air Force Material Command (AFMC). AFGSC is the Air Force lead command and operational capability requirements sponsor. This program is an element of the Air Force's nuclear enterprise reform initiatives.

The MH-139A Performance Enhancements and Product Improvements Program is for the development of solutions to solve capability gaps found during the development and test of the MH-139A to include communication and weapon systems deficiencies, improve mission planning compatibility, and resolve usability concerns, and other critical capabilities.

The program office will utilize the additional flight test aircraft in support of modernization efforts to address emerging threats and evolving mission needs.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver the MH-139A weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program elements 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2021 \$00.000 million was expended for civilian pay expenses in this program element, and in FY 2022 \$00.000 million is forecasted for civilian pay expenses in this program element.

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

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> MH-139A Performance Enhancements	0.000	0.000	6.104	0.000	6.104
<b>Description:</b> Development and integration of MH-139A helicopter solutions to solve capability gaps found during development and test to include communication and weapon system deficiencies, improve mission planning compatibility, resolve usability concerns and other critical capabilities.					
<b>FY 2022 Plans:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Air Force		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0102110F / UH-1N Replacement Program	<b>Project (Number/Name)</b> 672023 / MH-139A PE/PI

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
N/A					
<p><b>FY 2023 Base Plans:</b> Begin systems engineering efforts to include by not limited to communication and weapon system deficiencies, improve mission planning compatibility, resolve usability concerns and other critical capabilities. Establish government oversight, contractor and government systems engineering tasks, non-recurring engineering (NRE) and trial kit demonstrations on various capability upgrades.</p> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding increased due to ramp-up of engineering efforts and program planning activities.</p>					
<p><b>Title:</b> MH-139A Government Test Planning, Test and Evaluation</p> <p><b>Description:</b> Planning for system and subsystem test and evaluation and remedy of DT deficiencies of the MH-139 Performance Enhancement and Product Improvement solutions.</p> <p><b>FY 2022 Plans:</b> N/A</p> <p><b>FY 2023 Base Plans:</b> Begin test planning in support of capability upgrade efforts.</p> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding increased due to ramp-up of subsystem testing and evaluation of DT deficiencies.</p>	0.000	0.000	2.000	0.000	2.000
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	0.000	8.104	0.000	8.104

<b>C. Other Program Funding Summary (\$ in Millions)</b>										
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Cost To Complete Total Cost</b>	
• APAF 04 H0106O: MH-139A	194.016	141.360	156.192	-	156.192	282.143	420.714	537.747	356.119	776,363,000778,451.291

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Air Force										<b>Date:</b> April 2022	
<b>Appropriation/Budget Activity</b> 3600 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0102110F / UH-1N Replacement Program				<b>Project (Number/Name)</b> 672023 / MH-139A PE/PI			

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2023</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• APAF 06 H01060: UH-1N Replacement Program	18.389	0.000	11.253	-	11.253	31.256	34.085	28.292	23.685	55.651	202.611
• MILCON UH-1N Replacement: Primary Facility	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Remarks**

**D. Acquisition Strategy**

Acquisition and contracting strategies for RDT&E funded integration tasks and the test and evaluation program to be pursued as follow on programs with the acquisition strategies deemed most appropriate. Critical capability improvements will be planned for installation in future production lots or planned for integration into operational aircraft.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 Air Force</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0102110F / UH-1N Replacement Program	<b>Project (Number/Name)</b> 672023 / MH-139A PE/PI

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
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

<b>MH-139A Performance Enhancements and Product Improvements</b>	
Comm Upgrade Planning and Contract Award	██████████
Comm Upgrade Development and Integration	██████████████████
Comm Upgrade T&E	██████████████████
Weapon Systems Upgrade Planning and Contract Award	██████████████████
Weapon Systems Upgrade Development and Integration	██████████████████
Weapon Systems T&E	██████████████████
Mission Planning Upgrade Planning and Contract Award	██████████████████
Mission Planning Upgrade Development and Integration	██████████████████
Mission Planning Upgrade T&E	██████████████████

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Air Force		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0102110F / UH-1N Replacement Program	<b>Project (Number/Name)</b> 672023 / MH-139A PE/PI

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>MH-139A Performance Enhancements and Product Improvements</i></b>				
Comm Upgrade Planning and Contract Award	1	2023	2	2023
Comm Upgrade Development and Integration	2	2023	1	2024
Comm Upgrade T&E	1	2024	4	2024
Weapon Systems Upgrade Planning and Contract Award	1	2023	1	2024
Weapon Systems Upgrade Development and Integration	2	2024	1	2025
Weapon Systems T&E	1	2025	4	2025
Mission Planning Upgrade Planning and Contract Award	1	2024	1	2025
Mission Planning Upgrade Development and Integration	2	2025	1	2026
Mission Planning Upgrade T&E	1	2026	4	2026