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

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604033F / <i>Hypersonics Prototyping</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	-	374.426	318.687	431.868	0.000	431.868	270.240	305.602	237.367	105.990	0.000	2,044.180
643882: <i>Air-Launched Rapid Response Weapon (ARRW)</i>	-	374.426	318.687	114.981	0.000	114.981	0.000	0.000	0.000	0.000	0.000	808.094
643883: <i>Hypersonic Attack Cruise Missile</i>	-	0.000	0.000	316.887	0.000	316.887	270.240	305.602	237.367	105.990	0.000	1,236.086

Note

In FY 2022, PE 0101101F, Project ARRW00/AGM-183A Air-Launched Rapid Response Weapon, efforts were transferred to PE 0604033F, Hypersonics Prototyping, Project 643882, Air-Launched Rapid Response Weapon, in order to mitigate the testing shortfall.

A. Mission Description and Budget Item Justification

The Hypersonics Prototyping program enables integration and demonstration of emerging hypersonic technologies in an operational or operational-like environment to capitalize on successful laboratory hypersonic research and development efforts with high warfighter priority. Integration and demonstration of hypersonic prototypes also allows leadership to make informed strategy and resource decisions for future programs based on the results of such hypersonic prototype demonstrations.

Hypersonic Prototyping enables a key linkage between research and development in the lab and fielding advanced technologies to the warfighter. Under this program, Air-Launched Rapid Response Weapon (ARRW) and the Hypersonic Attack Cruise Missile (HACM) will accelerate the technology transfer of hypersonic technologies to enable a responsive, long range strike capability.

Throughout this program element will be future hypersonics development, which will incubate and mature new technologies, processes, and resources for the development and demonstration of hypersonic technology including, but not limited to, infrastructure advancements, digital engineering, open systems architecture, modeling and simulation, analytics, and high performance computing environments.

The total cost of the ARRW Rapid Prototyping Middle Tier of Acquisition effort is \$1,568.682 million, including RDT&E and procurement of prototype units. ARRW is fully funded across the Future Years Defense Program.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2021 \$3.536 million was expended for civilian pay expenses in this program element, and in FY 2022 \$4.222 million is forecasted for civilian pay expenses in this program element.

This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

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

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604033F / <i>Hypersonics Prototyping</i>
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B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	386.157	438.378	0.000	0.000	0.000
Current President's Budget	374.426	318.687	431.868	0.000	431.868
Total Adjustments	-11.731	-119.691	431.868	0.000	431.868
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-200.116			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	80.425			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-11.731	0.000			
• Other Adjustments	0.000	0.000	431.868	0.000	431.868

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

Project: 643882: *Air-Launched Rapid Response Weapon (ARRW)*

Congressional Add: *Program increase - Air-launched rapid response weapon*

Congressional Add Subtotals for Project: 643882

Congressional Add Totals for all Projects

	FY 2021	FY 2022
	5.000	0.000
Congressional Add Subtotals for Project: 643882	5.000	0.000
Congressional Add Totals for all Projects	5.000	0.000

Change Summary Explanation

In FY 2022, \$190.116 million was transferred from PE 0604033F Project 643883 (HACM) to establish new HACM PE 64183F, Project 644183 (HACM). Additionally, \$80.425M from PE 0101101F, Project ARRW00/AGM-183A Air-Launched Rapid Response Weapon, efforts were transferred to PE 0604033F, Hypersonics Prototyping, Project 643882, Air-Launched Rapid Response Weapon, in order to mitigate the testing shortfall.

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		
Appropriation/Budget Activity 3600 / 4					R-1 Program Element (Number/Name) PE 0604033F / <i>Hypersonics Prototyping</i>				Project (Number/Name) 643882 / <i>Air-Launched Rapid Response Weapon (ARRW)</i>			
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
643882: <i>Air-Launched Rapid Response Weapon (ARRW)</i>	-	374.426	318.687	114.981	0.000	114.981	0.000	0.000	0.000	0.000	0.000	808.094
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Air-Launched Rapid Response Weapon (ARRW) project integrates Air Force and DARPA enabled system technologies into a prototype that will demonstrate the viability of this concept to be fielded as a long range prompt strike capability. ARRW will design, develop, manufacture, and test, a number of prototype vehicles to inform decisions concerning ARRW acquisition and production.

Future hypersonics development will incubate and mature new technology, processes, and resources for the development and demonstration of hypersonic technology including, but not limited to, infrastructure advancements, digital engineering, open systems architecture, modeling and simulation, analytics, and high performance computing environments.

In FY 2022, PE 0101101F, Project ARRW00/AGM-183A Air-Launched Rapid Response Weapon, efforts were transferred to PE 0604033F, Hypersonics Prototyping, Project 643882, Air-Launched Rapid Response Weapon, in order to mitigate the testing shortfall.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2021 \$3.536 million was expended for civilian pay expenses in this program element, and in FY 2022 \$4.222 million is forecasted for civilian pay expenses in this program element.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Air Launched Rapid Response Weapon (ARRW)	369.426	318.687	114.981	0.000	114.981
Description: Integrates Air Force and DARPA enabled system technologies into a prototype that will demonstrate the viability of this concept to be fielded as a long range prompt strike capability. ARRW will design, develop, manufacture, and test, a number of prototype vehicles to inform decisions concerning ARRW acquisition and production.					
FY 2022 Plans: Continue manufacture and flight test of AUR test missiles and prepare for early operational capability.					
FY 2023 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604033F / <i>Hypersonics Prototyping</i>	Project (Number/Name) 643882 / <i>Air-Launched Rapid Response Weapon (ARRW)</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Complete flight test of AUR test missiles, prepare for transition to production and conduct contract closeout. FY 2023 OCO Plans: Not Applicable FY 2022 to FY 2023 Increase/Decrease Statement: FY 2023 funding decreased compared to FY 2022 by \$203.706 million due to program ramping down to MTA completion					
Accomplishments/Planned Programs Subtotals	369.426	318.687	114.981	0.000	114.981

	FY 2021	FY 2022
Congressional Add: Program increase - Air-launched rapid response weapon	5.000	0.000
FY 2021 Accomplishments: Conducted congressionally directed efforts to improve critical technology supplier base. FY 2022 Plans: Not Applicable		
Congressional Adds Subtotals	5.000	0.000

C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• MPAF 02 0101101F: N/A	0.000	0.000	46.566	0.000	46.566	0.000	0.000	0.000	0.000	0.000	46.566

Remarks
Program office may require temporary relocatable structures for expansion to support workforce and meet mission requirements.

D. Acquisition Strategy
Acquisition Decision Memorandum (signed 3 May 2018) designated Air-Launched Rapid Response Weapon (ARRW) as Section 804 Rapid Prototyping Program.

The Air Force awarded in August 2018 an undefinitized contract in order to complete a critical design review and procure all long lead parts and materials. The ARRW Program definitized this contract December 2019 to include the entire RDT&E effort (through the end of flight test). The cost type contract includes schedule incentives. The government agency responsible for managing this program is the Air Force Life Cycle Management Center, Armament Directorate, Eglin AFB, FL.

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

Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604033F / Hypersonics Prototyping	Project (Number/Name) 643882 / Air-Launched Rapid Response Weapon (ARRW)
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Product Development (\$ in Millions)				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			
ARRW - Contract	C/CPFF	LMCO: Various : Various	-	324.596	Feb 2021	249.825	Feb 2022	43.076	Dec 2022	-		43.076	0.000	617.497	-
ARRW - Mission Planning	C/CPFF	Boeing: Tapestry : TBD	-	1.026	Mar 2021	0.801	Mar 2022	0.856	Dec 2022	-		0.856	0.000	2.683	-
ARRW - Aircraft Integration	Various	Various : Various	-	11.617	Dec 2020	7.962	Jan 2022	0.640	Dec 2022	-		0.640	0.000	20.219	-
Congressional Add	TBD	TBD : TBD	-	5.000	Jun 2021	-		-		-		-	0.000	5.000	-
Subtotal				-		342.239		258.588		44.572		44.572	0.000	645.399	N/A

Support (\$ in Millions)				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			
Direct Cite Authority Civilian Pay	Allot	Not specified. : TBD	-	3.536	Oct 2020	4.222	Oct 2021	4.332	Oct 2022	-		4.332	0.000	12.090	-
Subtotal				-		3.536		4.222		4.332		4.332	0.000	12.090	N/A

Test and Evaluation (\$ in Millions)				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			
ARRW - Government Test	Various	Various : TBD	-	20.239	May 2021	44.833	May 2022	56.200	Dec 2022	-		56.200	0.000	121.272	-
Subtotal				-		20.239		44.833		56.200		56.200	0.000	121.272	N/A

Management Services (\$ in Millions)				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			
ARRW - Program Management Administration	Various	Multiple : TBD	-	8.412	Sep 2021	11.044	Sep 2022	9.877	Oct 2022	-		9.877	0.000	29.333	-

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

Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604033F / <i>Hypersonics Prototyping</i>	Project (Number/Name) 643882 / <i>Air-Launched Rapid Response Weapon (ARRW)</i>
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Management Services (\$ in Millions)				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			
Subtotal			-	8.412		11.044		9.877		-		9.877	0.000	29.333	N/A

Remarks
Includes A&AS support requirements plus TDY, and office supplies.

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	374.426	318.687	114.981	-	114.981	0.000	808.094	N/A

Remarks
Additional details on Hypersonics prototyping concepts can be provided in the appropriate forum.

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604033F / <i>Hypersonics Prototyping</i>	Project (Number/Name) 643882 / <i>Air-Launched Rapid Response Weapon (ARRW)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Air Launched Rapid Response Weapon (ARRW)</i>				
ARRW- Contract	1	2021	4	2023
Flight Tests	1	2021	4	2023

Note

Further schedule details can be provided in the appropriate forum.

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force										Date: April 2022		
Appropriation/Budget Activity 3600 / 4					R-1 Program Element (Number/Name) PE 0604033F / <i>Hypersonics Prototyping</i>				Project (Number/Name) 643883 / <i>Hypersonic Attack Cruise Missile</i>			
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
643883: <i>Hypersonic Attack Cruise Missile</i>	-	0.000	0.000	316.887	0.000	316.887	270.240	305.602	237.367	105.990	0.000	1,236.086
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Hypersonic Attack Cruise Missile (HACM) integrates advanced technologies and mature designs into an All-Up Round (AUR) prototype and will demonstrate a fieldable long range prompt strike capability. HACM will design, develop, manufacture, and test a number of prototype vehicles to inform future HACM acquisition decisions.

HACM will mature hypersonic technologies, processes, and resources to include: subsystem integration, infrastructure and testing advancements, digital engineering, open systems architecture, modeling and simulation, analytics, and high performance computing environments.

HACM is currently listed under both this PE 64033F/BPAC 643883 and PE 64183F/BPAC 644183 and will be consolidated to PE 64183F/BPAC 644183 during the next budget update.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2021 \$0.000 million was expended for civilian pay expenses in this program element, and in FY 2022 \$2.360 million is forecasted for civilian pay expenses in this program element.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: HACM Development	0.000	0.000	256.577	-	256.577
Description: Three industry performers purchasing hardware and developing a preliminary design. Followed by a single performer purchasing hardware and completing a critical design, and initial long-lead flight test asset hardware, to include aircraft integration assets.					
FY 2022 Plans: This effort consists of HACM requirements development, hardware purchases, trade studies and preliminary design maturation using a model-based Digital Engineering (DE) ecosystem. The effort also includes the incorporation of Air Force enabled technologies into the design, evaluation of system performance, applying a Weapon Open System Architecture (WOSA) standard and program planning.					
FY 2023 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force	Date: April 2022
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Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604033F / <i>Hypersonics Prototyping</i>	Project (Number/Name) 643883 / <i>Hypersonic Attack Cruise Missile</i>
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
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<p>Effort will utilize a single industry performer to build upon preliminary design activities and mature HACM to critical design. The effort will continue model-based engineering activities and the DE ecosystem to complete critical design analysis, design verification testing, systems integration, lab development, initial qualification testing, initial flight test hardware orders, aircraft integration assets, and WOSA compliance evaluation.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: FY 2023 funding increased compared to FY 2022 by \$256.577 million. Funding increased due to the completion of PDR in FY 2022, advancement to CDR in FY 2023, and initial flight test hardware orders.</p>					
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<p>Title: Integration, Qualification and Test</p> <p>Description: This effort includes the government costs associated to assembly, integration and test of subsystems for qualification testing as well as prototype systems for system qualification, ground test and flight testing. The effort includes the planning, execution and analysis to complete the defined HACM test strategy.</p> <p>FY 2022 Plans: Effort begins the planning, execution and analysis to assist in the completion of a defined HACM test strategy.</p> <p>FY 2023 Base Plans: Effort continues the assembly, integration and test of subsystems for qualification testing as well as prototype systems for system qualification, ground test and flight testing.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: FY 2023 funding increased compared to FY 2022 by \$38.367 million due to the ramp up of efforts to develop the HACM missile.</p>	0.000	0.000	38.367	-	38.367
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<p>Title: Program Support</p> <p>Description: Provides associated direct cite authority civilian pay and contractor support for HACM requirements.</p> <p>FY 2022 Plans: Efforts include Digital Engineering (DE), WOSA development/support, DE Infrastructure, mission planning and direct cite authority civilian pay.</p> <p>FY 2023 Base Plans:</p>	0.000	0.000	21.943	-	21.943
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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force	Date: April 2022
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Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604033F / <i>Hypersonics Prototyping</i>	Project (Number/Name) 643883 / <i>Hypersonic Attack Cruise Missile</i>
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Efforts include Digital Engineering (DE), WOSA development/support, DE Infrastructure, mission planning, container design, tech orders and direct cite authority civilian pay. <i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> FY 2023 funding increased compared to FY 2022 by \$21.943 million due to a increase in DE infrastructure requirement.					
Accomplishments/Planned Programs Subtotals	0.000	0.000	316.887	-	316.887

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

N/A

Remarks

D. Acquisition Strategy

Project integrates Air Force & Defense Advanced Research Projects Agency (DARPA) enabled systems technologies into a prototype that will demonstrate a multi-mission weapon concept to be fielded as a long range prompt strike capability. Includes scope to develop/test/demonstrate prototype weapon through Digital Model-Based System Engineering (MBSE) process, implementing WOSA and Agile Software Development. The HACM program will prioritize integration on the F-15E platform to enable quick entry into flight test.

The Air Force will award a Cost Plus Fixed Fee (CPFF) contract to procure all long lead parts, materials and labor for HACM Critical Design Review Development.

Acquisition Strategy approved Dec 2021 which designated HACM as a Section 804 Middle Tier of Acquisition (MTA) Pathway (Rapid Prototyping). Engaging OSD MTA Panel for pathway concurrence 2nd Quarter FY 2022.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force												Date: April 2022			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
3600 / 4				PE 0604033F / Hypersonics Prototyping				643883 / Hypersonic Attack Cruise Missile							
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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
HACM prime contractor support, analysis, technical risk reduction, and development.	C/CPFF	Multiple: TBD: Various : TBD	-	-		-		256.577	Nov 2022	-		256.577	Continuing	Continuing	-
Subtotal			-	-		-		256.577		-		256.577	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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
Development & Prototyping	C/CPFF	Multiple: TBD: Various : TBD	-	-		-		8.539	Dec 2022	-		8.539	Continuing	Continuing	-
Direct Cite Authority Civilian Pay	Allot	Not specified : TBD : TBD	-	-		-		3.912	Feb 2023	-		3.912	Continuing	Continuing	-
Subtotal			-	-		-		12.451		-		12.451	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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
Test and Evaluation	C/TBD	Multiple: TBD: Various : TBD	-	-		-		38.367	Nov 2022	-		38.367	Continuing	Continuing	-
Subtotal			-	-		-		38.367		-		38.367	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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
Management Services	C/TBD	Multiple: TBD: Various : TBD	-	-		-		9.492	Oct 2022	-		9.492	Continuing	Continuing	-
Subtotal			-	-		-		9.492		-		9.492	Continuing	Continuing	N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604033F / <i>Hypersonics Prototyping</i>	Project (Number/Name) 643883 / <i>Hypersonic Attack Cruise Missile</i>
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	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

<i>Hypersonic Attack Cruise Missile (HACM)</i>																												
HACM Development																												
Integration, Qualification and Test																												
Preliminary Design																												
Critical Design																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604033F / <i>Hypersonics Prototyping</i>	Project (Number/Name) 643883 / <i>Hypersonic Attack Cruise Missile</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Hypersonic Attack Cruise Missile (HACM)</i>				
HACM Development	1	2022	2	2027
Integration, Qualification and Test	1	2022	2	2027
Preliminary Design	1	2022	4	2022
Critical Design	4	2022	4	2023