

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	0.000	305.406	238.168	43.435	0.000	43.435	0.000	0.000	0.000	0.000	0.000	587.009
HX1: <i>Long-Range Hypersonic Weapon</i>	-	305.406	10.000	-	-	-	-	-	-	-	0.000	315.406
HX3: <i>All Up Round and Canister (AUR+C)</i>	-	-	45.233	-	-	-	-	-	-	-	0.000	45.233
HX4: <i>Common Hypersonic Glide Body (CHGB)</i>	-	-	105.710	-	-	-	-	-	-	-	0.000	105.710
HX5: <i>Ground Support Equipment (GSE)</i>	-	-	62.842	43.435	-	43.435	-	-	-	-	0.000	106.277
HX6: <i>Test and Evaluation</i>	-	-	14.383	-	-	-	-	-	-	-	0.000	14.383

Note

This funding will transition Program Element (PE) 0604182A / Hypersonics to PE 0605232A / Hypersonics EMD.

A. Mission Description and Budget Item Justification

The work in this Program Element (PE) supports the research, development, prototype, test and evaluation of technology to rapidly and efficiently procure, transition, and/or field critical enabling technologies and capabilities that address near-term, and mid-term threats and is directly aligned to the Army Long Range Precision Fires modernization priority.

PE 0604182A Hypersonics funds the development and prototype fielding of a Long Range Hypersonic Weapon to suppress adversary Long Range Fires and engage other high payoff/time critical targets. This effort encompasses the growth, testing and transition of Long Range Fires technologies.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 0604182A / Hypersonics
--	---

B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	315.131	173.168	43.244	-	43.244
Current President's Budget	305.406	238.168	43.435	-	43.435
Total Adjustments	-9.725	65.000	0.191	-	0.191
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-10.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	75.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-9.725	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	0.191	-	0.191

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

Project: HX1: Long-Range Hypersonic Weapon

Congressional Add: Program increase - hypersonic glide body risk reduction

Congressional Add: Program Increase - Near Net Shape Materials

Congressional Add: Program Increase - Materials, Manufacturing & Machine Learning for Hypersonics

Congressional Add Subtotals for Project: HX1

Project: HX4: Common Hypersonic Glide Body (CHGB)

Congressional Add: Hypersonic Glide Body Risk Reduction

Congressional Add: Near Net Shape Materials

Congressional Add Subtotals for Project: HX4

Congressional Add Totals for all Projects

	FY 2022	FY 2023
	44.000	-
	5.000	-
	-	10.000
	49.000	10.000
	-	60.000
	-	5.000
	-	65.000
	49.000	75.000

Change Summary Explanation

Increased funding due to revised economic assumptions.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0604182A / Hypersonics				Project (Number/Name) HX1 / Long-Range Hypersonic Weapon			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
HX1: Long-Range Hypersonic Weapon	-	305.406	10.000	-	-	-	-	-	-	-	0.000	315.406
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Previously, FY20-FY25 funding was captured within Program Element (PE) 0604182A / Hypersonics, Project HX1 / Long-Range Hypersonic Weapon. Beginning in FY23, all funding is realigned from Program Element (PE) 0604182A / Hypersonics, Project HX1 to Project HX3, HX4, HX5 and HX6 beneath PE 0604182A / Hypersonics.

This funding will transition the Budget Activity (BA) 4 activities to a Program of Record within PE 0605232A / Hypersonics EMD.

A. Mission Description and Budget Item Justification

Funding supports efforts to field an experimental prototype Hypersonic Weapon System with residual combat capability at the Battery Level as part of the Long Range Fires Battalion in support of Multi-domain Operations by the end of FY 2023. Initial fielding of all ground support equipment and training canisters, less live rounds, was completed in FY 2021. The Long Range Hypersonic Weapon (LRHW) system will provide the Army a prototype strategic attack weapon system to defeat Anti Access/ Area Denial (A2/AD) capabilities, suppress adversary Long Range Fires, and engage other high payoff/time critical targets. The Army is working closely with the Navy in the development of the LRHW. Common with the Navy, the LRHW system includes a Common Hypersonic Glide Body (CHGB) and common 34.5 inch booster. Additionally, the LRHW will use an existing Command and Control (C2) Network, the Advanced Field Artillery Tactical Data System (AFATDS).

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

	FY 2022	FY 2023	FY 2024
Title: Common Hypersonic Glide Body (CHGB)	29.944	-	-
Description: This effort is the development, purchase of hardware, integration, assembly, test and delivery of the Common Hypersonic Glide Body (CHGB) system for the All Up Round and Canister (AUR+C).			
Title: All Up Round and Canister (AUR+C)	123.213	-	-
Description: This effort is the development, purchase of hardware, integration, assembly, test and delivery of the All Up Round and Canister (AUR+C).			
Title: Ground Support Equipment (GSE)	78.448	-	-
Description: This funding is provided for planning, manufacturing and integration efforts for the Battery Operations Center (BOC), Transporter Erector Launcher (TEL), the Fielding and Transition efforts as well as the overall Systems Integration with the All Up Round and Canister (AUR+C) for the LRHW program.			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>	Project (Number/Name) HX1 / <i>Long-Range Hypersonic Weapon</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
Title: Test and Evaluation	24.801	-	-
Description: Test and evaluation includes test planning, execution and analysis of 3 major flight tests. Also provides required support for environmental testing.			
Accomplishments/Planned Programs Subtotals	256.406	-	-

	FY 2022	FY 2023
Congressional Add: Program increase - hypersonic glide body risk reduction	44.000	-
FY 2022 Accomplishments: Furthers efforts executed under FY21 109 \$50.000M "Hypersonic Glidebody Risk Reduction". Purchased additional equipment for Common Hypersonic Glidebody (CHGB) production ramp up, purchase critical spare parts to offset risk for flight tests, improve supplier base and manufacturing capabilities, develop test equipment and continue production engineering efforts to make design more affordable.		
Congressional Add: Program Increase - Near Net Shape Materials	5.000	-
FY 2022 Accomplishments: This effort focuses on optimizing the use of 3 Dimensional Carbon-Carbon (3DCC) in the Thermal Protection System (TPS). The intent is to decrease waste, improve producibility and reduce overall cost.		
Congressional Add: Program Increase - Materials, Manufacturing & Machine Learning for Hypersonics	-	10.000
FY 2023 Plans: Produce and qualify additively manufactured components to support future production line incorporation to the Common Hypersonic Glide Body. Develop and coordinate Non-Destructive Inspection (NDI) criteria for Additively Manufactured parts to help reduce program cost and accelerate schedule for product acceptance. Perform a cyber and physical review of designs to optimize parts based on use of AM processes vice standard machining processes, reducing cost, weight, and wasted material.		
Congressional Adds Subtotals	49.000	10.000

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

N/A

Remarks

D. Acquisition Strategy

The Army will field an experimental prototype Hypersonic Weapons System with residual operational capability NLT FY 2023 at the Battery Level as part of the Long Range Fires Battalion in support of Multi-domain Operations. Contractor Logistics Support (CLS) will be provided for one year following the delivery of the first battery. This effort uses a combination of Other Transaction Authority's (OTA's) and the Navy Conventional Prompt Strike (CPS) contract with Lockheed Martin. Long-lead

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
2040 / 4	PE 0604182A / <i>Hypersonics</i>	HX1 / <i>Long-Range Hypersonic Weapon</i>

procurement is required 2 years prior to delivery which resulted in a significant ramp up of funding in FY 2021 to meet the FY 2022 manufacturing and FY 2023 fielding requirement. Quick awards of the OTA and Navy CPS contracts ensure procurements are executed with adequate time to execute the funds and program requirements. A SETA contract provides support to the Government Project Office. The PEO M&S transition team is currently embedded within RCCTO to ensure an efficient transition in FY 2024 as a program of record.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>	Project (Number/Name) HX1 / <i>Long-Range Hypersonic Weapon</i>
--	--	---

Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
CHGB: Government Personnel and Operations Support	Various	Project Office Support : Huntsville, AL	-	3.426		1.000		-		-		-	0.000	4.426	-
AUR+C: Government Personnel and Operations Support	Various	Project Office Support : Huntsville, AL	-	5.693		-		-		-		-	0.000	5.693	-
GSE: Government Personnel and Operations Support	Various	Project Office Support : Huntsville, AL	-	7.052		-		-		-		-	0.000	7.052	-
Test: Government Personnel and Operations Support	Various	Project Office Support : Huntsville, AL	-	4.219		-		-		-		-	0.000	4.219	-
Subtotal			-	20.390		1.000		-		-		-	0.000	21.390	N/A

Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
CHGB: Dynetics Technical Solution (DTS)	C/CPFF	Manufacturing of the CHGB : Huntsville, AL	-	25.100		-		-		-		-	0.000	25.100	-
TPS: Dynetics Technical Solutions (DTS)	C/CPFF	Manufacturing of TPS : Huntsville, AL	-	20.999		-		-		-		-	0.000	20.999	-
CHGB: Various	Various	CHGB/TPS : Huntsville, AL	-	29.419		9.000		-		-		-	0.000	38.419	-
AUR+C: Lockheed Martin	C/Various	Manufacturing and delivery of the LRHW booster and canister : Denver, CO	-	115.660		-		-		-		-	0.000	115.660	-
AUR+C: Various	Various	AUR+C : Multiple	-	1.860		-		-		-		-	0.000	1.860	-
GSE: Lockheed Martin	C/CPFF	Software development and maintenance,	-	69.547		-		-		-		-	65.642	135.189	-

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>	Project (Number/Name) HX1 / <i>Long-Range Hypersonic Weapon</i>
--	--	---

Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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
CHGB Long Lead/Production																												
LRHW AUR+C Booster and Canister Deliveries																												
Contractor Logistics Support (CLS)																												
New Equipment Training																												
FT-3 Test																												
JFC-1 Test																												
JFC-2 Test																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>	Project (Number/Name) HX1 / <i>Long-Range Hypersonic Weapon</i>
--	--	---

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Integration Systems Requirement Review	1	2020	1	2020
AUR+C Preliminary Design Review	2	2020	2	2020
GSE Preliminary Design Review	2	2020	2	2020
Launcher Preliminary Design Review	3	2020	3	2020
GSE Critical Design Review	1	2021	1	2021
CHGB Long Lead/Production	1	2020	4	2022
Launcher Design/Manufacturing	1	2020	4	2021
Canisters Delivered for training	3	2021	4	2021
LRHW AUR+C Booster and Canister Deliveries	3	2021	4	2022
Delivery of Prototypes Launchers	4	2021	4	2021
Contractor Logistics Support (CLS)	1	2022	4	2022
New Equipment Training	1	2022	2	2022
Initial Fielding of BOC and TELs	4	2021	4	2021
FT-3 Test	1	2022	1	2022
JFC-1 Test	3	2022	3	2022
JFC-2 Test	2	2023	2	2023

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / Hypersonics	Project (Number/Name) HX3 / All Up Round and Canister (AUR+C)
--	---	---

COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
HX3: All Up Round and Canister (AUR+C)	-	-	45.233	-	-	-	-	-	-	-	0.000	45.233
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This funding will transition the Budget Activity (BA) 4 AUR+C activities to a Program of Record within PE 0605232A / Hypersonics EMD.

A. Mission Description and Budget Item Justification

Funds the effort to field an experimental prototype Hypersonic Weapon System with residual combat capability at the Battery Level as part of the Long Range Fires Battalion in support of Multi-domain Operations by the end of FY 2023. Initial fielding of all ground support equipment and training canisters, less live rounds, was completed in FY 2021. The Long Range Hypersonic Weapon (LRHW) system will provide the Army a prototype strategic attack weapon system to defeat Anti Access/ Area Denial (A2/AD) capabilities, suppress adversary Long Range Fires, and engage other high payoff/time critical targets. The Army is working closely with the Navy in the development of the LRHW. Common with the Navy, the LRHW system includes a Common Hypersonic Glide Body (CHGB) and common 34.5 inch booster. Additionally, the LRHW will use an existing Command and Control (C2) Network, the Advanced Field Artillery Tactical Data System (AFATDS).

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

	FY 2022	FY 2023	FY 2024
Title: All Up Round and Canister (AUR+C)	-	45.233	-
Description: This effort is the development, purchase of hardware, integration, assembly, test and delivery of the All Up Round and Canister (AUR+C).			
FY 2023 Plans: Technologies will continue to be updated based on FY 2022 test outcomes. Complete All Up Round and Canister (AUR+C) assembly, integration, acceptance testing and delivery. Support test preparation, execution, and post-flight analysis. Complete Insensitive Munition / Hazard Classification tests.			
FY 2023 to FY 2024 Increase/Decrease Statement: FY24 decrease reflects the transition of the Long Range Hypersonic Weapon (LRHW) program to PE 060523A/Hypersonics EMD.			
Accomplishments/Planned Programs Subtotals	-	45.233	-

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

N/A

Remarks

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>	Project (Number/Name) HX3 / <i>All Up Round and Canister (AUR+C)</i>

D. Acquisition Strategy

The RCCTO has a program level acquisition strategy that will field an experimental prototype Hypersonic Weapons System with residual operational capability NLT FY 2023 at the Battery Level as part of the Long Range Fires Battalion in support of Multi-domain Operations. Contractor Logistics Support (CLS) will be provided for one year following the delivery of the first battery. RCCTO uses a combination of Other Transaction Authority's (OTA's) and the Navy Conventional Prompt Strike (CPS) contract with Lockheed Martin. The AUR+C is currently embedded into this strategy as a project. Long lead procurement is required 2 years prior to delivery resulting in a significant ramp up of funding in FY 2021 to meet the FY 2022 manufacturing and FY 2023 fielding requirement. Quick awards of the OTA and Navy CPS contracts ensure procurements are executed with adequate time to execute the funds and program requirements. A SETA contract provides support to the Government Project Office. The PEO M&S transition team is currently embedded within RCCTO to ensure an efficient transition in FY 2024 as a program of record.

The detailed acquisition strategy specific to AUR+C will be defined by PEO M&S to support the follow on AUR+C requirements currently funded in PE 0605232A / Hypersonics Weapon (LRHW), Project HX2.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / Hypersonics	Project (Number/Name) HX3 / All Up Round and Canister (AUR+C)
--	---	---

Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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
Army Canister Deliveries																												
LRHW AUR+C Booster Deliveries																												
JFC-2 Test																												
JFC-3 Test																												
IM/HC Testing																												
LRHW FUI																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>	Project (Number/Name) HX3 / <i>All Up Round and Canister (AUR+C)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Army Canister Deliveries	1	2023	4	2023
LRHW AUR+C Booster Deliveries	1	2023	4	2023
JFC-2 Test	2	2023	2	2023
JFC-3 Test	4	2023	4	2023
IM/HC Testing	1	2023	2	2023
LRHW FUI	4	2023	4	2023

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army										Date: March 2023		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0604182A / Hypersonics				Project (Number/Name) HX4 / Common Hypersonic Glide Body (CHGB)			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
HX4: <i>Common Hypersonic Glide Body (CHGB)</i>	-	-	105.710	-	-	-	-	-	-	-	0.000	105.710
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This funding will transition the Budget Activity (BA) 4 AUR+C activities to PE 0605232A / Hypersonics EMD.

A. Mission Description and Budget Item Justification

Funds the effort to field an experimental prototype Hypersonic Weapon System with residual combat capability at the Battery Level as part of the Long Range Fires Battalion in support of Multi-domain Operations by the end of FY 2023. Initial fielding of all ground support equipment and training canisters, less live rounds, was completed in FY 2021. The Long Range Hypersonic Weapon (LRHW) system will provide the Army a prototype strategic attack weapon system to defeat Anti Access/Area Denial (A2/AD) capabilities, suppress adversary Long Range Fires, and engage other high payoff/time critical targets. The Army is working closely with the Navy in the development of the LRHW. Common with the Navy, the LRHW system includes a Common Hypersonic Glide Body (CHGB) and common 34.5 inch booster. Additionally, the LRHW will use an existing Command and Control (C2) Network, the Advanced Field Artillery Tactical Data System (AFATDS).

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

	FY 2022	FY 2023	FY 2024
Title: Common Hypersonic Glide Body (CHGB)	-	40.710	-
Description: This effort is the development, purchase of the hardware, integration, assembly, test and delivery of the Common Hypersonic Glide Body (CHGB) system for the missile.			
FY 2023 Plans: In FY 2023, fabrication and assembly of Common Hypersonic Glide Body (CHGB) prototypes will ramp up to JFC-3 flight test, qualification testing and fielding of the first LRHW battery. Primary efforts include manufacturing, assembly, test and checkout of the CHGB components and subsystems. Additional efforts include sub-assembly activities and integration, assembly and test of complete CHGBs for the Army's first LRHW battery. The new industry Thermal Protection System (TPS) integrator will begin integration, assembly and test efforts and continue long lead material procurements to support future deliveries.			
FY 2023 to FY 2024 Increase/Decrease Statement: FY24 decrease reflects the transition of the Long Range Hypersonic Weapon (LRHW) program to PE 060523A/Hypersonics EMD.			
Accomplishments/Planned Programs Subtotals	-	40.710	-
	FY 2022	FY 2023	
Congressional Add: Hypersonic Glide Body Risk Reduction	-	60.000	

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>	Project (Number/Name) HX4 / <i>Common Hypersonic Glide Body (CHGB)</i>

	FY 2022	FY 2023
FY 2023 Plans: Furthers efforts executed under FY22 80 \$44,000K "Hypersonic Glidebody Risk Reduction" to purchase additional equipment for Common Hypersonic Glidebody (CHGB) production ramp up, purchase critical spare parts to offset risk for flight tests, improve supplier base and manufacturing capabilities, develop test equipment and continue production engineering effort to make design more affordable.		
Congressional Add: Near Net Shape Materials FY 2023 Plans: Furthers efforts executed under FY22 80 \$500K Near Net Shape Materials to develop viable long-term alternatives to currently constrained industrial base for Thermal Protection Systems. In addition, this effort will also seek to design and produce a prototype part that can validate manufacturing rate, scaling limitations, and mechanical properties.	-	5.000
Congressional Adds Subtotals	-	65.000

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

N/A

Remarks

D. Acquisition Strategy

The RCCTO has a program level acquisition strategy that will field an experimental prototype Hypersonic Weapons System with residual operational capability NLT FY 2023 at the Battery Level as part of the Long Range Fires Battalion in support of Multi-domain Operations. Contractor Logistics Support (CLS) will be provided for one year following the delivery of the first battery. RCCTO uses a combination of Other Transaction Authority's (OTA's) and the Navy Conventional Prompt Strike (CPS) contract with Lockheed Martin. The CHGB is currently embedded into this strategy as a project. Long lead procurement is required 2 years prior to delivery resulting in a significant ramp up of funding in FY 2021 to meet the FY 2022 manufacturing and FY 2023 fielding requirement. Quick awards of the OTA and Navy CPS contracts ensure procurements are executed with adequate time to execute the funds and program requirements. A SETA contract provides support to the Government Project Office. The PEO M&S transition team is currently embedded within RCCTO to ensure an efficient transition in FY 2024 as a program of record.

The detailed acquisition strategy specific to CHGB will be defined by PEO M&S to support the follow on CHGB requirements currently funded in PE 0605232A / Hypersonics Weapon (LRHW), Project HX2.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>	Project (Number/Name) HX4 / <i>Common Hypersonic Glide Body (CHGB)</i>

Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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
CHGB Deliveries																												
JFC-2 Test					▲ 1																							
JFC-3 Test									▲ 2																			
LRHW FUI									▲ 3																			

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>	Project (Number/Name) HX4 / <i>Common Hypersonic Glide Body (CHGB)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
CHGB Deliveries	1	2023	3	2023
JFC-2 Test	2	2023	2	2023
JFC-3 Test	4	2023	4	2023
LRHW FUI	4	2023	4	2023

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army										Date: March 2023		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0604182A / Hypersonics				Project (Number/Name) HX5 / Ground Support Equipment (GSE)			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
HX5: Ground Support Equipment (GSE)	-	-	62.842	43.435	-	43.435	-	-	-	-	0.000	106.277
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY24 this funding will transition the Budget Activity (BA) 4 GSE activities to PE 0605232A / Hypersonics EMD.

A. Mission Description and Budget Item Justification

Funds the effort to field an experimental prototype Hypersonic Weapon System with residual combat capability at the Battery Level as part of the Long Range Fires Battalion in support of Multi-domain Operations by the end of FY 2023. Initial fielding of all ground support equipment and training canisters, less live rounds, was completed in FY 2021. The Long Range Hypersonic Weapon (LRHW) system will provide the Army a prototype strategic attack weapon system to defeat Anti Access/Area Denial (A2/AD) capabilities, suppress adversary Long Range Fires, and engage other high payoff/time critical targets. The Army is working closely with the Navy in the development of the LRHW. Common with the Navy, the LRHW system includes a Common Hypersonic Glide Body (CHGB) and common 34.5 inch booster. Additionally, the LRHW will use an existing Command and Control (C2) Network, the Advanced Field Artillery Tactical Data System (AFATDS).

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

	FY 2022	FY 2023	FY 2024
Title: Ground Support Equipment (GSE)	-	62.842	43.435
Description: This funding is provided for planning, manufacturing and integration efforts for the Battery Operations Center (BOC), Transporter Erector Launcher (TEL), the Fielding and Transition efforts as well as the overall Systems Integration with the All Up Round and Canister (AUR+C) for the LRHW program.			
FY 2023 Plans: Supports execution of training and logistics for fielded equipment including maintenance and repair/replacement of system components (Contractor Logistics Support (CLS)) in order to maintain operational readiness. Includes systems integration activities in lab and field environment of the All-Up Round and Canister (AUR+C), Transporter Erector Launcher (TEL) and Battery Operations Center (BOC) hardware and software. Planning and execution of ground and flight test events utilizing TEL and BOC followed by post-test data analysis and evaluation of test results. Software development and maintenance to incorporate design changes resulting from test events as well as user feedback. Development of the product-level technical data package documenting the design of the TEL and BOC. Includes engineering support for technology insertion to the weapon system driving hardware and software changes to the system. Complete a delta New Equipment Training (NET) event to cover hardware and software changes as well as Soldier rotations.			
FY 2024 Plans:			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army	Date: March 2023
--	-------------------------

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / Hypersonics	Project (Number/Name) HX5 / Ground Support Equipment (GSE)
--	---	--

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p>The FY 2024 Base Funding in the amount of \$43.244 million funds the logistics support of the first battery, up to one year after First Unit Issued Declaration. Logistics Support will include maintenance tasks and troubleshooting, sparing, and reach back for engineering support. Logistics Support will include embedded Field Service Representatives (FSRs) and will provide subject matter expertise for the LRHW Prototype Battery on a continuous basis starting at first unit of issue. Base funding allows for logistics support integration efforts to ensure safe and effective operational fielding of the prototype battery. Software development and maintenance to incorporate design changes resulting from test events as well as user feedback.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: FY24 decrease supports one year of Contractor Logistics Support (CLS), following the fielding of Battery #1 and transition to PE 0605232A/ Hypersonics EMD.</p>			
Accomplishments/Planned Programs Subtotals	-	62.842	43.435

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

Remarks

D. Acquisition Strategy
The RCCTO has a program level acquisition strategy that will field an experimental prototype Hypersonic Weapons System with residual operational capability NLT FY 2023 at the Battery Level as part of the Long Range Fires Battalion in support of Multi-domain Operations. Contractor Logistics Support (CLS) will be provided for one year following the delivery of the first battery. RCCTO uses a combination of Other Transaction Authority's (OTA's) and the Navy Conventional Prompt Strike (CPS) contract with Lockheed Martin. The GSE is currently embedded into this strategy as a project. Funding for long lead items is required 2 years prior to delivery resulting in a significant ramp up of funding in FY 2021 to meet the FY 2022 manufacturing and FY 2023 fielding requirement. Quick awards of the OTA and Navy CPS contracts ensure funding actions are initiated with adequate time to execute the funds and program requirements. A SETA contract provides support to the Government Project Office. The PEO M&S transition team is currently embedded within RCCTO to ensure an efficient transition in FY 2024 as a program of record.

The detailed acquisition strategy specific to GSE will be defined by PEO M&S to support the follow on GSE requirements currently funded in PE 0605232A / Hypersonics Weapon (LRHW), Project HX2.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / Hypersonics	Project (Number/Name) HX5 / Ground Support Equipment (GSE)
--	---	--

Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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
Contractor Logistics Support (CLS)																												
JFC-2 Test					▲ 1																							
JFC-3 Test					▲ 2																							
Delta New Equipment Training																												
LRHW FUI					▲ 3																							

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>	Project (Number/Name) HX5 / <i>Ground Support Equipment (GSE)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Contractor Logistics Support (CLS)	1	2023	4	2024
JFC-2 Test	2	2023	2	2023
JFC-3 Test	4	2023	4	2023
Delta New Equipment Training	1	2023	1	2023
LRHW FUI	4	2023	4	2023

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0604182A / Hypersonics				Project (Number/Name) HX6 / Test and Evaluation			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
HX6: <i>Test and Evaluation</i>	-	-	14.383	-	-	-	-	-	-	-	0.000	14.383
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This funding will transition the Budget Activity (BA) 4 Test and Evaluation activities to PE 0605232A / Hypersonics EMD.

A. Mission Description and Budget Item Justification

Funds the effort to field an experimental prototype Hypersonic Weapon System with residual combat capability at the Battery Level as part of the Long Range Fires Battalion in support of Multi-domain Operations by the end of FY 2023. Initial fielding of all ground support equipment and training canisters, less live rounds, was completed in FY 2021. The Long Range Hypersonic Weapon (LRHW) system will provide the Army a prototype strategic attack weapon system to defeat Anti Access/Area Denial (A2/AD) capabilities, suppress adversary Long Range Fires, and engage other high payoff/time critical targets. The Army is working closely with the Navy in the development of the LRHW. Common with the Navy, the LRHW system includes a Common Hypersonic Glide Body (CHGB) and common 34.5 inch booster. Additionally, the LRHW will use an existing Command and Control (C2) Network, the Advanced Field Artillery Tactical Data System (AFATDS).

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

	FY 2022	FY 2023	FY 2024
Title: Test and Evaluation	-	14.383	-
Description: Test and evaluation includes test planning, execution, and analysis of 2 major flight tests. Also provides required support for environmental testing.			
FY 2023 Plans: JFC-2 requirements include Post Flight Test analysis. JFC-3 requirements include data collection infrastructure, execution costs, Soldier TDY and Post Flight Test analysis.			
FY 2023 to FY 2024 Increase/Decrease Statement: FY24 decrease reflects the transition of the Long Range Hypersonic Weapon (LRHW) program to PE 060523A/Hypersonics EMD.			
Accomplishments/Planned Programs Subtotals	-	14.383	-

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

N/A

Remarks

D. Acquisition Strategy

The RCCTO has a program level acquisition strategy that will field an experimental prototype Hypersonic Weapons System with residual operational capability NLT FY 2023 at the Battery Level as part of the Long Range Fires Battalion in support of Multi-domain Operations. Contractor Logistics Support (CLS) will be provided

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
2040 / 4	PE 0604182A / <i>Hypersonics</i>	HX6 / <i>Test and Evaluation</i>

for one year following the delivery of the first battery. RCCTO uses a combination of Other Transaction Authority's (OTA's) and the Navy Conventional Prompt Strike (CPS) contract with Lockheed Martin. Test is currently embedded into this strategy as a project. Long lead procurement is required 2 years prior to delivery resulting in a significant ramp up of funding in FY 2021 to meet the FY 2022 manufacturing and FY 2023 fielding requirement. Quick awards of the OTA and Navy CPS contracts ensure procurements are executed with adequate time to execute the funds and program requirements. A SETA contract provides support to the Government Project Office. The PEO M&S transition team is currently embedded within RCCTO to ensure an efficient transition in FY 2024 as a program of record.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>	Project (Number/Name) HX6 / <i>Test and Evaluation</i>
--	--	--

Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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
JFC-2 Test					▲ 1																							
JFC-2 Post Flight Analysis					■																							
JFC-3 Test								▲ 2																				
LRHW FUI								▲ 3																				

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604182A / <i>Hypersonics</i>	Project (Number/Name) HX6 / <i>Test and Evaluation</i>
--	--	--

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
JFC-2 Test	2	2023	2	2023
JFC-2 Post Flight Analysis	2	2023	3	2023
JFC-3 Test	4	2023	4	2023
LRHW FUI	4	2023	4	2023