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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force **Date:** March 2024

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 0207110F / <i>Next Generation Air Dominance</i>
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	1,608.787	2,326.128	3,306.355	0.000	3,306.355	3,684.211	5,396.538	7,247.656	8,829.396	Continuing	Continuing
646007: <i>Next Generation Air Dominance (NGAD) Platform</i>	-	1,608.787	1,933.918	2,749.208	0.000	2,749.208	3,189.315	3,741.918	4,201.373	5,723.123	Continuing	Continuing
647123: <i>Collaborative Combat Aircraft (CCA)</i>	-	0.000	392.210	557.147	0.000	557.147	494.896	1,654.620	3,046.283	3,106.273	Continuing	Continuing

Note

Project 646007, Next Generation Air Dominance (NGAD) Platform, changed from AS 2030 Air Dominance Technologies (ADT)

A. Mission Description and Budget Item Justification

Next Generation Air Dominance (NGAD) Family of Systems (FoS) is a portfolio of technologies enabling Air Superiority for the Joint Force in the most challenging operational environments. Key NGAD FoS attributes include enhancements to survivability, lethality, persistence, crewed/uncrewed teaming and interoperability across a range of military operations. Program activities include the employment of digital acquisitions through the application of digital engineering, agile software development, open systems architectures and digital systems infrastructure as well as the design, build, and test of full weapon systems with supporting elements. Funding provides for operational concept exploration, technology studies, multi-domain integration assessments, operational and system architecture development, maturation and risk reduction of air superiority related technologies. These include autonomy, weapon systems, integrated system concept development and demonstration, as well as activities for full weapon system design, build, test, and program management support. Program management support costs include but are not limited to contractor support services, civilian pay, supplies, and facility related expenses. NGAD FoS technologies are available to other DoD systems based on emerging threats, AF priorities, and development capacity. DoD systems incorporating NGAD FoS technologies will include development, integration, and testing of capabilities. This program element supports the Secretary of the Air Force's Operational Imperatives, specifically "Defining the NGAD Family of Systems."

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023, 18.666M was expended for civilian pay expenses in this program element. In FY2024, 46.476M 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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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 0207110F / <i>Next Generation Air Dominance</i>
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B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	1,657.635	2,326.128	3,485.240	0.000	3,485.240
Current President's Budget	1,608.787	2,326.128	3,306.355	0.000	3,306.355
Total Adjustments	-48.848	0.000	-178.885	0.000	-178.885
• 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	10.000	0.000			
• SBIR/STTR Transfer	-58.848	0.000			
• Other Adjustments	0.000	0.000	-178.885	0.000	-178.885

Change Summary Explanation

FY 2023, a Below Threshold Reprogramming occurred to realign 10.000M from PE 0604840F for Project 646007: Next Generation Air Dominance (NGAD) Platform.

FY 2025 changes can be addressed at a higher classification level

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 4					R-1 Program Element (Number/Name) PE 0207110F / Next Generation Air Dominance				Project (Number/Name) 646007 / Next Generation Air Dominance (NGAD) Platform			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
646007: Next Generation Air Dominance (NGAD) Platform	-	1,608.787	1,933.918	2,749.208	0.000	2,749.208	3,189.315	3,741.918	4,201.373	5,723.123	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Project 646007, Next Generation Air Dominance (NGAD) Platform, changed from AS 2030 Air Dominance Technologies (ADT).

A. Mission Description and Budget Item Justification

The NGAD program is influenced by the CSAF-approved Air Superiority Enterprise Capability Collaboration Team (ECCT) Flight Plan. The program matures technology and reduces risk through development, integration, and test activities. Key NGAD attributes include enhancements in survivability, lethality, persistence, and interoperability across a range of military operations. Program activities include the employment of digital acquisitions through the application of digital engineering, agile software development, open systems architectures and digital systems infrastructure as well as the design, build, and test of full weapon systems with supporting elements. Funding provides operational concept exploration, technology studies, multi-domain integration assessments, operational and system architecture development, maturation and risk reduction of air superiority related technologies. These include autonomy, weapon systems, integrated system concept development and demonstration, as well as activities for full weapon system design, build, test, and program management support. Program management support costs includes but is not limited to contractor support services, civilian pay, supplies, and facility related expenses. NGAD technologies are designed to become available to other DoD systems based on emerging threats, AF priorities, and development capacity.

In FY2023, 18.666M was expended for civilian pay expenses in this project. In FY2024, 34.597M is forecasted for civilian pay expenses in this project.

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

	FY 2023	FY 2024	FY 2025
Title: 2030+ Air Dominance	1,608.787	1,933.918	2,749.208
Description: The 2030+ Air Dominance (AD) candidate concepts consist of operational analyses, threat studies, technology candidate assessments and prototyping to identify operational concepts and technologies that improve persistence, survivability, lethality, connectivity, interoperability and affordability in 2030 and beyond. These efforts will provide for contractors to conduct analyses, identify technology candidates and perform concept refinement. Studies are required to develop operational/system architectures to include family of systems and spectral dominance platforms. In addition, technical risk reduction activities will be performed to include development, integration, test and building demonstrative prototypes.			
The 2030+ AD working groups methodically assessed candidate concepts using USAF directives and guidance that informed the NGAD Analysis of Alternatives (AoA). Ongoing studies refine system concepts and operational/system architectures incorporating family of systems and spectral dominance platforms that may be required to inform and support strategic choices.			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0207110F / <i>Next Generation Air Dominance</i>	Project (Number/Name) 646007 / <i>Next Generation Air Dominance (NGAD) Platform</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>In addition, technical risk reduction studies utilizing preliminary data from AD concept development have informed strategic USAF experimentation and prototyping efforts. Finally, technical overviews were presented to the Air Force - Scientific Advisory Board (AF-SAB) and other senior leaders.</p> <p><i>FY 2024 Plans:</i> The Engineering and Manufacturing Development (EMD) phase is planned to begin and program activities include the pursuit of open architecture solutions and the design, build, and test of full weapon systems. NGAD Platform continues to conduct analyses, identify technology candidates and perform concept refinements. Studies required to develop operational/system architectures to include family of systems and spectral dominance platforms continues to mature. Technical risk reduction activities continue to include development, integration, test and building demonstrative prototypes.</p> <p><i>FY 2025 Plans:</i> The Engineering and Manufacturing Development (EMD) phase will continue; program activities include the pursuit of open architecture solutions and the design, build, and test of full weapon systems. NGAD Platform will continue to conduct analyses, identify technology candidates and perform concept refinements. Studies required to develop operational/system architectures to include family of systems and spectral dominance platforms will also mature. Technical risk reduction activities will continue to include development, integration, test and building demonstrative prototypes.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Funding increased due to continued technology maturation, risk reduction activities, hardware prototyping efforts, and increased EMD activities. Additional details for cost increase from FY2024 to FY2025 cannot be provided at this classification level.</p>			
Accomplishments/Planned Programs Subtotals	1,608.787	1,933.918	2,749.208

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

N/A

Remarks

D. Acquisition Strategy

The Next Generation Air Dominance acquisition strategy is based on a top-down, multi-domain capabilities development planning and oversight framework. Cross-functional teams will conduct analysis, demonstrations, and experiments to quantify the operational value of alternative concepts and technologies to provide solutions to current and future air superiority capability gaps. Additional details on the acquisition strategy cannot be provided at this classification level.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0207110F / Next Generation Air Dominance	Project (Number/Name) 646007 / Next Generation Air Dominance (NGAD) Platform
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
NGAD Research/ Development Efforts	Various	Various : Various	-	1,544.549		1,866.407		2,680.347		-		2,680.347	Continuing	Continuing	-
Subtotal			-	1,544.549		1,866.407		2,680.347		-		2,680.347	Continuing	Continuing	N/A

Remarks
Contractual specifics are not available at this level of security classification.

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
NGAD Acquisition Support	Various	Various : Various	-	64.238		67.511		68.861		-		68.861	Continuing	Continuing	-
Subtotal			-	64.238		67.511		68.861		-		68.861	Continuing	Continuing	N/A

Remarks
NGAD Acquisition Support includes but is not limited to A&AS, civilian pay, supplies, and facility related expenses.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		-	1,608.787	1,933.918	2,749.208	2,749.208	Continuing	Continuing	N/A

Remarks
Details of contract data are not shown because of the level of security classification.

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0207110F / <i>Next Generation Air Dominance</i>	Project (Number/Name) 646007 / <i>Next Generation Air Dominance (NGAD) Platform</i>

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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

Next Generation Air Dominance (NGAD) Platform	
Concept Exploration	
Integration Studies	
Technology Risk Reduction / Prototyping	
Engineering and Manufacturing Development (EMD)	
FY24 Strategic Planning Choices Presented	
FY25 Strategic Planning Choices Presented	
FY26 Strategic Planning Choices Presented	
FY27 Strategic Planning Choices Presented	
FY28 Strategic Planning Choices Presented	
FY29 Strategic Planning Choices Presented	
FY30 Strategic Planning Choices Presented	

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0207110F / <i>Next Generation Air Dominance</i>	Project (Number/Name) 646007 / <i>Next Generation Air Dominance (NGAD) Platform</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Next Generation Air Dominance (NGAD) Platform</i>				
Concept Exploration	1	2023	4	2029
Integration Studies	1	2023	4	2029
Technology Risk Reduction / Prototyping	1	2023	4	2029
Engineering and Manufacturing Development (EMD)	3	2024	4	2029
FY24 Strategic Planning Choices Presented	1	2023	1	2023
FY25 Strategic Planning Choices Presented	1	2024	1	2024
FY26 Strategic Planning Choices Presented	1	2025	1	2025
FY27 Strategic Planning Choices Presented	1	2026	1	2026
FY28 Strategic Planning Choices Presented	1	2027	1	2027
FY29 Strategic Planning Choices Presented	1	2028	1	2028
FY30 Strategic Planning Choices Presented	1	2029	1	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 4					R-1 Program Element (Number/Name) PE 0207110F / Next Generation Air Dominance				Project (Number/Name) 647123 / Collaborative Combat Aircraft (CCA)			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
647123: Collaborative Combat Aircraft (CCA)	-	0.000	392.210	557.147	0.000	557.147	494.896	1,654.620	3,046.283	3,106.273	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Collaborative Combat Aircraft (CCA) are uncrewed weapon systems capable of enhancing crewed weapon systems to achieve air superiority. The program matures and leverages relevant Science and Technology investments to reduce risk by conducting targeted development, integration and test activities. Key CCA attributes include cost of platforms, mission integrated autonomy, multi-platform interoperability, and lethality enhancement. Program activities include the employment of digital acquisitions through the application of digital engineering, agile software development, and open systems architectures. Funding provides information technology/test/training infrastructure investments, operational concept exploration, technology studies, multi-domain integration, operational assessments, architecture development, integrated weapons systems development and demonstration of air superiority related technologies, and multi-level prototyping as well as program management support. Program management support costs include but are not limited to contractor support services, civilian pay, supplies, and facility related expenses.

In FY2023, civilian pay expenses were expended out of program element 0207179F. In FY2024, 11.8790M is forecasted for civilian pay expenses in this project.

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

	FY 2023	FY 2024	FY 2025
Title: Collaborative Combat Aircraft	0.000	392.210	557.147
Description: The Collaborative Combat Aircraft effort includes operational analyses/studies, technology candidate assessments, development, integration, test, prototyping, and demonstrations to identify operational concepts and technologies that project air power against adversaries. Ongoing studies are conducted to refine CCA concepts as well as air superiority related technologies.			
FY 2024 Plans: Collaborative Combat Aircraft will conduct analyses, identify technology candidates, perform concept refinement studies, development, integration, test, prototyping, and demonstrations to reduce risk and mature CCA concepts and air superiority related technologies in support of the NGAD family of systems.			
FY 2025 Plans: Collaborative Combat Aircraft will continue to conduct analyses, identify technology candidates, perform concept refinement studies, development, integration, test, prototyping, and demonstrations, as well as crewed systems integration to reduce risk and mature CCA concepts and air superiority related technologies in support of the NGAD family of systems.			
FY 2024 to FY 2025 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0207110F / <i>Next Generation Air Domina nce</i>	Project (Number/Name) 647123 / <i>Collaborative Combat Aircraft (CCA)</i>
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Funding increased for continued technology maturation, risk reduction activities, and prototyping efforts. Additional details for cost increase from FY2024 to FY2025 cannot be provided at this classification level.			
Accomplishments/Planned Programs Subtotals	0.000	392.210	557.147

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

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• RDTE 04 0207179F: <i>Autonomous Collaborative Platforms</i>	54.954	0.000	-	-	-	-	-	-	-	0.000	54.954

Remarks

D. Acquisition Strategy
 The Collaborative Combat Aircraft acquisition strategy is based on a multi-domain capabilities, development, planning, and oversight framework. Cross-functional teams will conduct analysis, demonstrations, and experiments to quantify the operational value of alternative concepts and technologies in order to provide solutions to current and future air superiority capability gaps. Additional details on the acquisition strategy cannot be provided at this classification level.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0207110F / Next Generation Air Dominance	Project (Number/Name) 647123 / Collaborative Combat Aircraft (CCA)
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
CCA Research/ Development Efforts	Various	Various : TBD	-	-		379.776		540.711		-		540.711	Continuing	Continuing	-
Subtotal			-	-		379.776		540.711		-		540.711	Continuing	Continuing	N/A

Remarks
Contract specifics are not available at this level of security classification.

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
CCA Acquisition Support	Various	Various : TBD	-	-		12.434		16.436		-		16.436	Continuing	Continuing	-
Subtotal			-	-		12.434		16.436		-		16.436	Continuing	Continuing	N/A

Remarks
CCA acquisition support includes but is not limited to A&AS, civilian pay, supplies, and facility related expenses.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	392.210	557.147	-	557.147	Continuing	Continuing	N/A

Remarks
Details of contract data are not shown because of the level of security classification.

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0207110F / <i>Next Generation Air Dominance</i>	Project (Number/Name) 647123 / <i>Collaborative Combat Aircraft (CCA)</i>

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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>Collaborative Combat Aircraft (CCA)</i>	
Concept Exploration	
Integration Studies	
Technology Risk Reduction / Prototyping	

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0207110F / <i>Next Generation Air Domina nce</i>	Project (Number/Name) 647123 / <i>Collaborative Combat Aircraft (CCA)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Collaborative Combat Aircraft (CCA)</i>				
Concept Exploration	1	2024	4	2029
Integration Studies	1	2024	4	2029
Technology Risk Reduction / Prototyping	1	2024	4	2029