

UNCLASSIFIED

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 0207110F / <i>Next Generation Air Dominance</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
Total Program Element	-	869.740	1,524.667	1,657.733	0.000	1,657.733	1,655.166	3,017.096	3,527.489	3,536.468	Continuing	Continuing
646007: <i>AS 2030 Air Dominance Technologies (ADT)</i>	-	869.740	1,524.667	1,657.733	0.000	1,657.733	1,655.166	3,017.096	3,527.489	3,536.468	Continuing	Continuing

A. Mission Description and Budget Item Justification

Next Generation Air Dominance (NGAD) is a portfolio of technologies enabling Air Superiority for the Joint Force in the most challenging operational environments. The NGAD program is directed by Joint Requirements Oversight Council Memorandum (JROCM) 043-13 and 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 will also include the employment of digital acquisitions through the application of digital engineering, agile software development, and open systems architectures. Funding provides program management support, operational concept exploration, technology studies, multi-domain integration assessments, operational and system architecture development, maturation and risk reduction of air superiority related technologies, including weapons systems and integrated system concept development and demonstration. NGAD technologies are available to other DoD systems based on emerging threats, AF priorities, and development capacity. DoD systems incorporating NGAD technologies will include development, integration, and testing of capabilities.

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 0605831F. NGAD civilian pay is executed in program element 0207110F. In FY22 18.700M is forecasted for civilian pay expenses and in FY23 19.261M 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.

UNCLASSIFIED

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 0207110F / <i>Next Generation Air Dominance</i>
--	--

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	902.440	1,524.667	0.000	0.000	0.000
Current President's Budget	869.740	1,524.667	1,657.733	0.000	1,657.733
Total Adjustments	-32.700	0.000	1,657.733	0.000	1,657.733
• 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	0.000	0.000			
• SBIR/STTR Transfer	-32.700	0.000			
• Other Adjustments	0.000	0.000	1,657.733	0.000	1,657.733

Change Summary Explanation

FY 2021: -\$32.700M SBIR

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 FY2023 cannot be made in a relevant manner.

UNCLASSIFIED

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 0207110F / <i>Next Generation Air Dominance</i>				Project (Number/Name) 646007 / <i>AS 2030 Air Dominance Technologies (ADT)</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
646007: <i>AS 2030 Air Dominance Technologies (ADT)</i>	-	869.740	1,524.667	1,657.733	0.000	1,657.733	1,655.166	3,017.096	3,527.489	3,536.468	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Next Generation Air Dominance (NGAD) is a portfolio of technologies enabling Air Superiority for the Joint Force in the most challenging operational environments. The NGAD program is directed by Joint Requirements Oversight Council Memorandum (JROCM) 043-13 and 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 will also include the employment of digital acquisitions through the application of digital engineering, agile software development, and open systems architectures. Funding provides program management support, operational concept exploration, technology studies, multi-domain integration assessments, operational and system architecture development, maturation and risk reduction of air superiority related technologies, including weapons systems and integrated system concept development and demonstration. NGAD technologies are available to other DoD systems based on emerging threats, AF priorities, and development capacity. DoD systems incorporating NGAD technologies will include development, integration, and testing of capabilities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver NGAD weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605831F. NGAD civilian pay is executed in program element 0207110F. In FY22 \$18.700M is forecasted for civilian pay expenses and in FY23 \$19.261M is forecasted for civilian pay expenses in this program element.

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

	FY 2021	FY 2022	FY 2023
Title: 2030+ Air Dominance	869.740	1,524.667	1,657.733
Description: The 2030+ Air Dominance (AD) candidate concepts consist of operational analyses, threat studies and 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. Furthermore, 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. Resulting concepts informed the NGAD Analysis of Alternatives (AoA), which was completed in 2019. Ongoing studies are conducted to 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. In addition, technical risk reduction studies concerning technology			

UNCLASSIFIED

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 0207110F / <i>Next Generation Air Dominance</i>	Project (Number/Name) 646007 / <i>AS 2030 Air Dominance Technologies (ADT)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
<p>integration, operational and system trade space utilizing preliminary data from AD concept development have resulted in multiple activities and engagements to inform 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>FY 2022 Plans: NGAD 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 be performed to include development, integration, test and building demonstrative prototypes. Program activities will include the pursuit of open architecture solutions.</p> <p>FY 2023 Plans: NGAD 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 be performed to include development, integration, test and building demonstrative prototypes. Program activities will include the pursuit of open architecture solutions.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Funding increased due to program increasing technology maturation, risk reduction activities, and hardware prototyping efforts</p>				
Accomplishments/Planned Programs Subtotals		869.740	1,524.667	1,657.733
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
The Next Generation Air Dominance acquisition strategy is based on 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.				

UNCLASSIFIED

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 0207110F / Next Generation Air Domina nce	Project (Number/Name) 646007 / AS 2030 Air Dominance Technologies (ADT)
--	---	--

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			
NGAD Research/ Development Efforts	Various	Various : Various	-	834.083		1,475.790		1,607.417		-		1,607.417	Continuing	Continuing	-
Subtotal			-	834.083		1,475.790		1,607.417		-		1,607.417	Continuing	Continuing	N/A

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

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			
NGAD Acquisition Support	Various	Various : Various	-	35.657		48.877		50.316		-		50.316	Continuing	Continuing	-
Subtotal			-	35.657		48.877		50.316		-		50.316	Continuing	Continuing	N/A

Remarks
Includes civilian pay

	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	-	869.740	1,524.667	1,657.733	-	1,657.733	Continuing	Continuing	N/A

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

UNCLASSIFIED

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 0207110F / Next Generation Air Domina nce	Project (Number/Name) 646007 / AS 2030 Air Dominance Technologies (ADT)

	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
AS 2030 Air Dominance Technologies (ADT)																												
Concept Exploration																												
Integration Studies																												
Technology Risk Reduction / Prototyping																												
FY23 Strategic Planning Choices Presented																												
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																												

UNCLASSIFIED

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 0207110F / <i>Next Generation Air Dominance</i>	Project (Number/Name) 646007 / <i>AS 2030 Air Dominance Technologies (ADT)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>AS 2030 Air Dominance Technologies (ADT)</i>				
Concept Exploration	1	2021	4	2027
Integration Studies	1	2021	4	2027
Technology Risk Reduction / Prototyping	1	2021	4	2027
FY23 Strategic Planning Choices Presented	1	2021	1	2021
FY24 Strategic Planning Choices Presented	1	2022	1	2022
FY25 Strategic Planning Choices Presented	1	2023	1	2023
FY26 Strategic Planning Choices Presented	1	2024	1	2024
FY27 Strategic Planning Choices Presented	1	2025	1	2025
FY28 Strategic Planning Choices Presented	1	2026	1	2026
FY29 Strategic Planning Choices Presented	1	2027	1	2027