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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3600: Research, Development, Test & Evaluation, Air Force I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0207110F I Next Generation Air Dominance							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	32.495	167.595	294.746	0.000	294.746	507.705	1,318.301	1,204.800	1,244.912	Continuing	Continuing
646007: 2030+ AIR DOMINANCE AOS	-	32.495	167.595	293.743	0.000	293.743	504.404	1,315.000	1,200.000	1,240.000	Continuing	Continuing
646203: Air Dominance Air-to-Air Weapon	-	0.000	0.000	1.003	0.000	1.003	3.301	3.301	4.800	4.912	Continuing	Continuing

Note

This program, BA 04 PE 0207110F, project 646203, AS2030 Weapons, is a new start.

A. Mission Description and Budget Item Justification

Next Generation Air Dominance enables future execution of Air Force air superiority doctrine within the Air Superiority core mission area, as directed in Joint Requirements Oversight Council Memorandum (JROCM) 043-13 and by the CSAF approved Air Superiority 2030 Enterprise Capability Collaboration Team (AS2030 ECCT) Flight Plan. Program efforts mitigate critical capability gaps identified in the March 2011 Air Force Next Generation Tactical Air (TACAIR) Capabilities Based Assessment and revalidated in 2016 by the AS2030 ECCT. This program will provide air superiority capability improvements in the areas of persistence, survivability, lethality, connectivity, interoperability, and affordability. Funding provides program management support; operational concept exploration; technology studies, assessments and development; operational and system architecture development; maturation and risk reduction of air superiority related technologies, which includes weapons systems; and integrated system concept development and demonstration.

BA-04 - This program 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.

B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	8.830	20.595	12.875	0.000	12.875
Current President's Budget	32.495	167.595	294.746	0.000	294.746
Total Adjustments	23.665	147.000	281.871	0.000	281.871
• 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	23.950	147.000			
• SBIR/STTR Transfer	-0.285	0.000			
• Other Adjustments	0.000	0.000	281.871	0.000	281.871

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Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 0207110F I Next Generation Air Dominance
<p><u>Change Summary Explanation</u></p> <p>FY16 - \$23.95M reprogrammed 20Sep16 via approved FY16 Omnibus to further expand the scope of concept development & integration assessments and technology risk reduction activities addressing family of systems concepts.</p> <p>FY17 - \$147M added to further expand the scope of concept development, integration assessments, and accelerate technology risk reduction activities addressing family of systems concepts.</p> <p>FY18 - \$280.868M added to further expand the scope of concept development & integration assessments and accelerate technology risk reduction activities addressing family of systems concepts.</p> <p>- \$1.003M added to establish the Air Dominance Air-to-Air Weapon project for concept development, integration assessments and technology risk reduction activities addressing air dominance weapons.</p>		

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600 / 4					R-1 Program Element (Number/Name) PE 0207110F / Next Generation Air Dominance				Project (Number/Name) 646007 / 2030+ AIR DOMINANCE AOS			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
646007: 2030+ AIR DOMINANCE AOS	-	32.495	167.595	293.743	0.000	293.743	504.404	1,315.000	1,200.000	1,240.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Next Generation Air Dominance enables future execution of Air Force air superiority doctrine within the Air Superiority core mission area, as directed in Joint Requirements Oversight Council Memorandum (JROCM) 043-13 and by the CSAF approved Air Superiority 2030 Enterprise Capability Collaboration Team (AS2030 ECCT) Flight Plan. Program efforts mitigate critical capability gaps identified in the March 2011 Air Force Next Generation Tactical Air (TACAIR) Capabilities Based Assessment and revalidated in 2016 by the AS2030 ECCT. This program will provide air superiority capability improvements in the areas of persistence, survivability, lethality, connectivity, interoperability, and affordability. Funding provides program management support; operational concept exploration; technology studies, assessments and development; operational and system architecture development; maturation and risk reduction of air superiority related technologies, which includes weapons systems; and integrated system concept development and demonstration.

BA-04 - This program 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.

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

	FY 2016	FY 2017	FY 2018
Title: 2030+ Air Dominance	32.495	167.595	293.743
Description: The 2030+ Air Dominance candidate concepts consist of operational analyses, threat studies and technology candidate assessments 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 system of systems. In addition, technical risk reduction activities will be performed to include experimentation, integration and building demonstrative prototypes.			
FY 2016 Accomplishments: The 2030+ Air Dominance candidate concepts consist of operational analyses, threat studies and technology candidate assessments 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			

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600 / 4				R-1 Program Element (Number/Name) PE 0207110F / Next Generation Air Dominance				Project (Number/Name) 646007 / 2030+ AIR DOMINANCE AOS				
B. Accomplishments/Planned Programs (\$ in Millions) architectures to include family of systems and system of systems. In addition, technical risk reduction activities will be performed to include experimentation, integration and building demonstrative prototypes. FY 2017 Plans: The 2030+ Air Dominance candidate concepts will integrate technologies into evolving threat environments and scenarios. Studies that refine system concepts and operational/system architectures to include family of systems and system of systems are required in support of the strategic choices. FY 2018 Plans: The 2030+ Air Dominance candidate concepts consist of operational analyses, threat studies and technology candidate assessments 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 system of systems. In addition, technical risk reduction activities will be performed to include experimentation, integration and building demonstrative prototypes.										FY 2016	FY 2017	FY 2018
Accomplishments/Planned Programs Subtotals										32.495	167.595	293.743
C. Other Program Funding Summary (\$ in Millions)												
<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>	
• N/A: None	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.000	
Remarks N/A												
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 war-games and experiments to quantify the operational value of alternative concepts and technologies to provide solutions to current and future air superiority capability gaps.												
E. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.												

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force												Date: May 2017			
Appropriation/Budget Activity 3600 / 4						R-1 Program Element (Number/Name) PE 0207110F / Next Generation Air Dominance				Project (Number/Name) 646007 / 2030+ AIR DOMINANCE AOS					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Research/Development Efforts	Various	Various : Various	-	31.395		164.295		277.643		0.000		277.643	Continuing	Continuing	-
Subtotal			-	31.395		164.295		277.643		0.000		277.643	-	-	-
Remarks															
Contractual specifics are not available at this level of security classification.															
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Subtotal			-	-		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Subtotal			-	-		-		-		-		-	-	-	-
Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Program Management Support	Various	Various : Various	-	1.100		3.300		16.100		0.000		16.100	Continuing	Continuing	-
Subtotal			-	1.100		3.300		16.100		0.000		16.100	-	-	-
			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	32.495		167.595		293.743		0.000		293.743	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force							Date: May 2017			
Appropriation/Budget Activity 3600 / 4				R-1 Program Element (Number/Name) PE 0207110F / Next Generation Air Dominance			Project (Number/Name) 646007 / 2030+ AIR DOMINANCE AOS			
	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract	
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: FY 2018 Air Force			Date: May 2017		
Appropriation/Budget Activity 3600 / 4		R-1 Program Element (Number/Name) PE 0207110F / <i>Next Generation Air Dominance</i>			Project (Number/Name) 646007 / <i>2030+ AIR DOMINANCE AOS</i>

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	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
Concept Exploration																												
Integration Studies																												
Technology Risk Reduction																												
Analysis of Alternatives																												
FY18 Strategic Planning Choices Presented																												
FY19 Strategic Planning Choices Presented																												
FY20 Strategic Planning Choices Presented																												
FY21 Strategic Planning Choices Presented																												
FY22 Strategic Planning Choices Presented																												
FY23 Strategic Planning Choices Presented																												
FY24 Strategic Planning Choices Presented																												

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force			Date: May 2017
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0207110F / <i>Next Generation Air Dominance</i>	Project (Number/Name) 646007 / <i>2030+ AIR DOMINANCE AOS</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Concept Exploration	1	2016	4	2022
Integration Studies	3	2016	4	2022
Technology Risk Reduction	3	2016	4	2022
Analysis of Alternatives	2	2017	3	2018
FY18 Strategic Planning Choices Presented	1	2016	1	2016
FY19 Strategic Planning Choices Presented	1	2017	1	2017
FY20 Strategic Planning Choices Presented	1	2018	1	2018
FY21 Strategic Planning Choices Presented	1	2019	1	2019
FY22 Strategic Planning Choices Presented	1	2020	1	2020
FY23 Strategic Planning Choices Presented	1	2021	1	2021
FY24 Strategic Planning Choices Presented	1	2022	1	2022

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600 / 4					R-1 Program Element (Number/Name) PE 0207110F / Next Generation Air Dominance				Project (Number/Name) 646203 / Air Dominance Air-to-Air Weapon			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
646203: Air Dominance Air-to-Air Weapon	-	0.000	0.000	1.003	0.000	1.003	3.301	3.301	4.800	4.912	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note This program, BA 04 PE 0207110F, project 646203, AS2030 Weapons, is a new start.												
A. Mission Description and Budget Item Justification Next Generation Air Dominance enables future execution of Air Force air superiority doctrine within the Air Superiority core mission area, as directed in Joint Requirements Oversight Council Memorandum (JROCM) 043-13 and by the CSAF approved Air Superiority 2030 Enterprise Capability Collaboration Team (AS2030 ECCT) Flight Plan. Program efforts mitigate critical capability gaps identified in the March 2011 Air Force Next Generation Tactical Air (TACAIR) Capabilities Based Assessment and revalidated in 2016 by the AS2030 ECCT. This program will provide air superiority capability improvements in the areas of persistence, survivability, lethality, connectivity, interoperability, and affordability. Funding provides program management support; operational concept exploration; technology studies, assessments and development; operational and system architecture development; maturation and risk reduction of air superiority related technologies, which includes weapons systems; and integrated system concept development and demonstration. BA-04 - This program 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.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2016	FY 2017	FY 2018	
Title: AS2030 Weapons									0.000	0.000	1.003	
Description: The 2030+ Air Dominance Weapon Systems candidate concepts will develop, refine and integrate technologies into evolving threat scenarios and environments. Funding supports studies that refine system concepts and operational/system architectures to include family of systems and system of systems are required in support of the strategic choices and technical risk reduction activities that include but not limited to experimentation, integration and building demonstrative prototypes.												
FY 2016 Accomplishments: N/A												
FY 2017 Plans: N/A												
FY 2018 Plans:												

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Appropriation/Budget Activity 3600 / 4				R-1 Program Element (Number/Name) PE 0207110F / Next Generation Air Dominance				Project (Number/Name) 646203 / Air Dominance Air-to-Air Weapon				
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2016	FY 2017	FY 2018
The 2030+ Air Dominance candidate concepts consist of operational analyses, threat studies and technology candidate assessments 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 system of systems. In addition, technical risk reduction activities will be performed to include experimentation, integration and building demonstrative prototypes.												
Accomplishments/Planned Programs Subtotals										0.000	0.000	1.003
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	
Remarks												
D. Acquisition Strategy												
The Next Generation Air Dominance Air-to-Air Weapon acquisition strategy is based on top-down, multi-domain capabilities development planning and oversight framework. Cross-functional teams will conduct war-games and experiments to quantify the operational value of alternative concepts and technologies to provide solutions to current and future air superiority capability gaps.												
E. Performance Metrics												
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.												