Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force	Date: May 2017
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604858F / *Tech Transition Program*

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	-	264.673	349.304	840.650	0.000	840.650	877.002	727.309	578.073	127.591	Continuing	Continuing
645350: *Experimentation*	-	264.673	64.247	95.613	0.000	95.613	87.862	87.415	87.373	89.164	Continuing	Continuing
645351: *Prototyping*	-	0.000	285.057	745.037	0.000	745.037	789.140	639.894	490.700	38.427	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Technology Transition Program (TTP) provides funding to demonstrate, prototype and experiment with technologies and concepts to enable or accelerate their transition to acquisition programs and/or operational use. TTP addresses the gap between initial technology or concept development and demonstration, and successful acquisition and operational capability implementation. Experimentation explores new concepts and their applications in potential future operating environments within a system-of-systems context. Prototyping enables integration and demonstration of emerging technologies as a bridge between the laboratory and the warfighter. TTP allows acquisition program managers (the capability developers) and warfighters (the capability recipients and end users) to prototype, integrate, and demonstrate candidate technologies and assess them in an operational environment in partnership with Program Executive Officers (PEO), schoolhouses, simulation facilities, and development planning organizations.

For FY18, Project 645350, Transition Prioritization was re-named Experimentation to better describe the efforts in the project.
For FY18, Project 645351, Advanced Engine Development was re-named Prototyping to better describe the efforts in the project.

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	266.514	347.304	497.741	0.000	497.741
Current President's Budget	264.673	349.304	840.650	0.000	840.650
Total Adjustments	-1.841	2.000	342.909	0.000	342.909
• 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	6.722	0.000			
• SBIR/STTR Transfer	-8.563	0.000			
• Other Adjustments	0.000	2.000	342.909	0.000	342.909

Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force	Date: May 2017
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604858F / *Tech Transition Program*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2016	FY 2017
Project: 645350: *Experimentation*		
Congressional Add: *Alternative Energy Research*	20.000	0.000
Congressional Add Subtotals for Project: 645350	20.000	0.000
Congressional Add Totals for all Projects	20.000	0.000

Change Summary Explanation

Reprogramming in FY 2016 reflects technology transition of Auto Ground Collision Avoidance System (Auto GCAS) to Air National Guard F-16 fleet.

$2M FY 2017 Request for Additional Appropriations(RAA) to address Hypersonics Prototyping efforts.

Increase in FY 2018 reflects acceleration of Adaptive Engine Transition Program (AETP), AETP Air Superiority 2030+ study effort, Spectral Halo Pod prototyping, hypersonics prototyping, and low-cost attritable aircraft technology (LCAAT) prototyping.

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 0604858F / *Tech Transition Program*	Project (Number/Name) 645350 / *Experimentation*	

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
645350: *Experimentation*	-	264.673	64.247	95.613	0.000	95.613	87.862	87.415	87.373	89.164	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Experimentation project funds experimentation campaigns to explore new concepts and their applications in potential future operating environments within a system-of-systems context. Concepts and enabling technologies such as artificial intelligence, machine learning, directed energy weapons and multi-domain operations hold great promise, yet their transition to acquisition programs and fielded capabilities is typically hampered due to uncertainties regarding their military application and organizational implications. Implementing successful transition approaches for complex and widely applicable concepts requires a comprehensive and coordinated campaign of learning. Experimentation campaigns enable organizational learning through the methodical and systematic application of experimentation and supporting analysis. Experimentation campaigns are centered on an operational level warfighting concept to provide context for assessment, and use wargaming, simulation, and field experimentation to evolve, refine, and validate the warfighting concept leading to solid, evidentiary-based materiel and non-materiel capability development approaches with associated recommendations. Experimentation campaigns improve the effectiveness of operations by developing concepts and generating new information to address challenging threats of the future which aids the fielding of advanced technologies by providing the credible evidence decision makers need to make sound strategic decisions and investment choices. Experimentation campaigns are directed by the Air Force Capability Development Council to ensure funding supports the highest Air Force priorities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Tech Transition weapon system capability.

For FY18, Project 645350, Transition Prioritization was re-named Experimentation to better describe the efforts in the project.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Propulsion Technology Transition	221.603	0.000	0.000	0.000	0.000
Description: Next-generation jet engine technology.					
FY 2016 Accomplishments: Completed various adaptive engine component risk reduction rig tests. Completed additional engine design efforts culminating in a preliminary design update review. Completed manufacturing of core engine components and initiated assembly of core modules for future testing. Completed requirements review. Initiated detailed design efforts.					
FY 2017 Plans: For FY 2017 and beyond, the work from this effort will transition to Project 645351, Prototyping, effort AETP.					
FY 2018 Base Plans:					

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 0604858F / *Tech Transition Program*	**Project (Number/Name)** 645350 / *Experimentation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Not applicable. ***FY 2018 OCO Plans:*** Not applicable.					
Title: Sustainment Technology Transition ***Description:*** Product support and sustainment technologies. ***FY 2016 Accomplishments:*** Continued to transition Auto Ground Collision Avoidance System (Auto GCAS) to Air National Guard F-16 fleet. ***FY 2017 Plans:*** Continue to transition Auto GCAS to Air National Guard F-16 fleet. ***FY 2018 Base Plans:*** In FY 2018 and beyond, this effort will be accomplished under Project 645351, Prototyping, effort Lifecycle Prototyping. ***FY 2018 OCO Plans:*** Not applicable.	6.722	0.368	0.000	0.000	0.000
Title: Experimentation Campaigns ***Description:*** Execution of experimentation campaigns to explore promising concepts and enabling technologies. Activities may include facilitated workshops, wargaming, modeling and simulation, and virtual and hardware prototyping to enable experimentation campaigns. ***FY 2016 Accomplishments:*** Demonstrated the potential of networked, extended range munitions to deliver Close Air Support (CAS) effects and to place manned CAS platforms outside the range of enemy surface fires. Conducted a live fire event using the High Energy Liquid Laser Area Defense System (HELLADS) laser system, demonstrating that emergent and mature technological systems can combine to cue, track, and destroy air targets in defense of the National Capital Region. ***FY 2017 Plans:*** Conduct multiple experimentation campaigns to include assessing needed capabilities for prolonged CAS operations in permissive to some contested environments such as counterinsurgency, counterterrorism, stability operations, and peacekeeping operations; exploring the effects of increased information accessible	16.348	63.879	95.613	0.000	95.613

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 0604858F / *Tech Transition Program*	**Project (Number/Name)** 645350 / *Experimentation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
throughout the entire battlespace; exploring ways and means to defeat the most challenging battlefield threats by investigating a wide range of promising new concepts and enabling technologies. Initiate hypersonics prototyping efforts. ***FY 2018 Base Plans:*** Continue experimentation campaigns to advance multi-domain operations and other high priority areas, as directed by the Air Force Capability Development Council. For FY 2018 and beyond, hypersonics and other prototyping efforts will be accomplished under Project 645351, Prototyping, effort Lifecycle Prototyping. ***FY 2018 OCO Plans:*** Not applicable.					
Accomplishments/Planned Programs Subtotals	244.673	64.247	95.613	0.000	95.613

	FY 2016	FY 2017
Congressional Add: Alternative Energy Research	20.000	0.000
FY 2016 Accomplishments: Conducted Congressionally-directed efforts.		
FY 2017 Plans: Not applicable.		
Congressional Adds Subtotals	20.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Experimentation campaigns will aid the fielding of advanced technologies by providing the credible evidence decision makers need to make sound strategic decisions and investment choices.

The Air Force Capability Development Council directs experimentation campaigns. The Air Force Strategic Development Planning and Experimentation office manages and executes each experimentation campaign. Contracting strategies vary based on the activities of each campaign.

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.

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 0604858F / *Tech Transition Program*	Project (Number/Name) 645350 / *Experimentation*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Sustainment Technology Transition	SS/FFP	LMCO : Various	-	6.722	Oct 2015	0.368	Jul 2017	0.000		0.000		0.000	Continuing	Continuing	-
Propulsion Technologies - GE	C/CPIF	GE : Evendale, OH	-	63.992	Oct 2015	0.000		0.000		0.000		0.000	Continuing	Continuing	-
Propulsion Technologies - PW	C/CPIF	PW : East Hartford, CT	-	68.348	Oct 2015	0.000		0.000		0.000		0.000	Continuing	Continuing	-
Propulsion Technologies (AETP) - GE	C/CPIF	GE : Evendale, OH	-	39.400	Jun 2016	0.000		0.000		0.000		0.000	Continuing	Continuing	-
Propulsion Technologies (AETP) - PW	C/CPIF	PW : East Hartford, CT	-	39.400	Jun 2016	0.000		0.000		0.000		0.000	Continuing	Continuing	-
Experimentation Campaigns	C/Various	Various : Various	-	16.348	Oct 2015	63.879	Feb 2017	95.613	Feb 2018	0.000		95.613	Continuing	Continuing	-
Congressional Add	C/CPAF	Various : Various	-	20.000	Jun 2017	0.000		0.000		0.000		0.000	Continuing	Continuing	-
		Subtotal	-	254.210		64.247		95.613		0.000		95.613	-	-	-

Remarks

For FY 2017 and beyond, the work under Propulsion Technologies will be reported under Project 645351, effort AETP.
For FY 2018 and beyond, Sustainment Technology Transition will be reported under Project 645351, effort Lifecycle Prototyping.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engine Testing	MIPR	Arnold Engineering Development Complex : Arnold AFB, TN	-	9.434	Oct 2015	0.000		0.000		0.000		0.000	Continuing	Continuing	-

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 0604858F / *Tech Transition Program*	Project (Number/Name) 645350 / *Experimentation*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	9.434		0.000		0.000		0.000		0.000	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	Not specified. : TBD	-	1.029	Jan 2016	0.000		0.000		0.000		0.000	Continuing	Continuing	-
		Subtotal	-	1.029		0.000		0.000		0.000		0.000	-	-	-

Remarks

Further budget details can be provided in the appropriate forum.

	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	-	264.673		64.247		95.613		0.000		95.613	-	-	-

Remarks

N/A

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 0604858F / *Tech Transition Program*	**Project (Number/Name)** 645350 / *Experimentation*

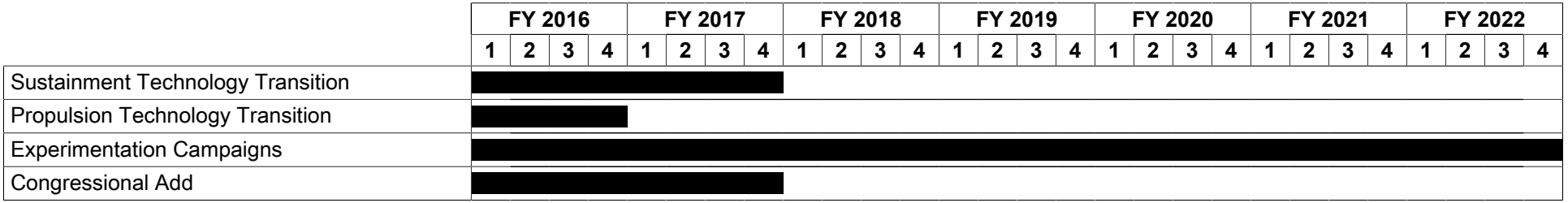

Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force		Date: May 2017
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 0604858F / *Tech Transition Program*	**Project (Number/Name)** 645350 / *Experimentation*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Sustainment Technology Transition	1	2016	4	2017
Propulsion Technology Transition	1	2016	4	2016
Experimentation Campaigns	1	2016	4	2022
Congressional Add	1	2016	4	2017

Note

For FY 2017 and beyond, the work under Propulsion Technologies will be reported under Project 645351, effort AETP.
For FY 2018 and beyond, Sustainment Technology Transition will be reported under Project 645351, effort Lifecycle Prototyping.
For FY 2018 and beyond, hypersonics prototyping efforts will be accomplished under Project 645351, effort Lifecycle Prototyping.

Further schedule details regarding individual experimentation campaigns can be provided in the appropriate forum.

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 0604858F / *Tech Transition Program*	Project (Number/Name) 645351 / *Prototyping*	

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
645351: *Prototyping*	-	0.000	285.057	745.037	0.000	745.037	789.140	639.894	490.700	38.427	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project 645351, Prototyping, enables integration and demonstration of emerging technologies in an operational or operational-like environment in order to capitalize on successful laboratory research and development efforts with high warfighter priority. Integration and demonstration of prototypes also allows leadership to make informed strategy and resource decisions based on the results of such prototype demonstrations. In addition to the current prototyping effort under the AETP effort, future prototyping efforts funded from this Project will aim to capitalize on various emerging warfighter technology areas (e.g. hypersonics, directed energy weapons).

Prototyping enables a key linkage between research and development in the lab and fielding advanced technologies to the warfighter. Under Project 645351, AETP will serve as a model prototyping effort to reestablish the Air Force's experimentation and prototyping culture. Adaptive engine technology combines fuel efficiency characteristics of high-bypass turbofan engines used by commercial airliners with high performance characteristics of military fighter engines. AETP is maturing fuel-efficient, adaptive-cycle engine technologies and demonstrating flight-weight, prototype adaptive engines. The engine architecture has undergone initial technology development and proof of concept work via the Air Force Research Laboratory's Adaptive Versatile Engine Technology program (ADVENT) and the Adaptive Engine Technology Development program (AETD). As such, the technology is now ready for transition to a prototyping effort under AETP. In like manner, Project 645351 plans to support other prototyping efforts in the future, enabling similar emerging technology transitions.

For FY18, Project 645351, Advanced Engine Development was re-named Prototyping to better describe the efforts in this Project.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Adaptive Engine Transition Program	0.000	285.057	592.851	-	592.851
Description: The adaptive engine architecture relies on a third stream of air that can be modulated into a bypass stream or into the engine's core. Additional bypass air increases fuel efficiency at cruise conditions, increasing range and decreasing tanker demand, while providing additional cooling air for thermal management of onboard electronics. Additional core air produces greater thrust required for higher energy conditions necessary for military fighters (acceleration, supersonic flight). AETP will also mature new materials and component technology which can be individually transitioned to existing legacy platforms. AETP will design and manufacture multiple flight-weight adaptive engine prototypes, complete component rig assessments, characterize materials, and inform manufacturing process improvements. By producing flight-weight prototypes, the program will demonstrate adaptive engine technology can be scaled to meet military fighter engine size requirements, while ensuring appropriate manufacturing- and technology-readiness levels.					

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 0604858F / *Tech Transition Program*	**Project (Number/Name)** 645351 / *Prototyping*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
By performing sea-level, altitude, and durability assessments across multiple power settings, the prototype engines will demonstrate fuel efficiency increases, thrust increases, and new component technologies. These assessments will provide data to quantify the capability and reduce risk in areas such as thermal capacity, reliability, and supportability, among others. AETP has been initiated to reduce lead-time and technology risk for next-generation adaptive engine systems through technology maturation and risk reduction activities. The program is not specific to any one platform; rather, it is aimed at reducing risk in preparation for revolutionary, next-generation propulsion systems for multiple combat aircraft applications. AETP will increase acquisition agility by enabling varying degrees of technology insertion across multiple platforms. ***FY 2016 Accomplishments:*** In FY 2016 and prior, the work leading to this effort was performed under Project 645350, effort Propulsion Technology Transition. ***FY 2017 Plans:*** Conduct detailed design and component rig activities. Continue various detailed design and component rig activities. Continue technology, affordability, and sustainability studies. More details can be provided in an appropriate forum. ***FY 2018 Base Plans:*** Continue detailed design activities. Continue component rig activities. Continue technology, affordability, and sustainability studies. Conduct AETP Air Superiority 2030+ study. More details can be provided in an appropriate forum.					
Title: Lifecycle Prototyping ***Description:*** Lifecycle prototyping, product support and sustainment technologies. ***FY 2016 Accomplishments:*** In FY 2016 and FY 2017, this effort was reported under Project 645350, effort Sustainment Technology Transition. ***FY 2017 Plans:*** N/A ***FY 2018 Base Plans:***	0.000	0.000	152.186	-	152.186

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 0604858F / *Tech Transition Program*	**Project (Number/Name)** 645351 / *Prototyping*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Continue hypersonics prototyping efforts to mature critical enabling technologies required to facilitate successful operations and delivery of effects across the hypersonic regime. Initiate Spectral Halo Pod prototyping effort to enhance exploratory concept which will advance a capability to be used by multi-generation aircraft and also employ multiple domains to disrupt, degrade, and collapse adversarial capabilities. Initiate low cost design and manufacturing of low-cost attritable aircraft technology. Begin flight testing and demonstration of low-cost attritable aircraft prototype with representative payloads and subsystems. May add additional prototyping activities for emerging technologies based on Department guidance. Continue to develop product support and sustainment technologies to support the warfighter and reduce sustainment costs.					
Accomplishments/Planned Programs Subtotals	0.000	285.057	745.037	-	745.037

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 Air Force has awarded two limited source, cost plus incentive fee contracts to General Electric and Pratt & Whitney due to their unique qualifications to design a high performance, flight-weight adaptive turbine engine in the thrust class for AETP. Incentive categories include engine weight, performance factors, and maintainability and supportability, with specific metrics for each area incentivized. The government agency responsible for managing this program is the Air Force Life Cycle Management Center, Propulsion Directorate, Wright-Patterson Air Force Base, Ohio.

For Lifecycle Prototyping efforts beginning in FY 2018, the acquisition strategies are under development.

Miscellaneous emerging prototyping will be based on guidance from Department leadership.

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.

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 0604858F / *Tech Transition Program*	Project (Number/Name) 645351 / *Prototyping*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Adaptive Engine Transition Program - GE	C/CPIF	GE : Evendale, OH	-	0.000		136.000	Jun 2016	314.425	Jun 2016	0.000		314.425	Continuing	Continuing	-
Adaptive Engine Transition Program - PW	C/CPIF	PW : East Hartford, CT	-	0.000		148.000	Jun 2016	277.426	Jun 2016	0.000		277.426	Continuing	Continuing	-
Hypersonics Prototyping	TBD	TBD : TBD	-	0.000		0.000		90.000	Jan 2018	0.000		90.000	Continuing	Continuing	-
Spectral Halo Pod Prototyping	TBD	TBD : TBD	-	0.000		0.000		50.000	Jan 2018	0.000		50.000	Continuing	Continuing	-
Low-Cost Attritable Aircraft Technology Prototyping	TBD	TBD : TBD	-	0.000		0.000		12.186	Jan 2018	0.000		12.186	Continuing	Continuing	-
		Subtotal	-	0.000		284.000		744.037		0.000		744.037	-	-	-

Remarks

In FY 2016 and prior, the work for Advanced Engine Development originally was performed under Project 645350.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	Various : TBD	-	0.000		1.057	Dec 2016	1.000	Dec 2017	0.000		1.000	Continuing	Continuing	-

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 0604858F / *Tech Transition Program*	Project (Number/Name) 645351 / *Prototyping*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	0.000		1.057		1.000		0.000		1.000	-	-	-

	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	-	0.000		285.057		745.037		0.000		745.037	-	-	-

Remarks

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 0604858F / *Tech Transition Program*	**Project (Number/Name)** 645351 / *Prototyping*

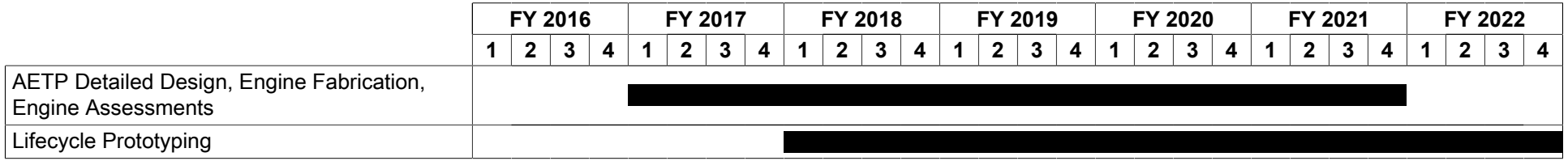

Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force		Date: May 2017
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 0604858F / *Tech Transition Program*	**Project (Number/Name)** 645351 / *Prototyping*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
AETP Detailed Design, Engine Fabrication, Engine Assessments	1	2017	4	2021
Lifecycle Prototyping	1	2018	4	2022

Note

AETP consists of three phases: detailed design, engine fabrication, and engine assessments.

Program deliverables include: military adaptive engine detailed design parameters and models, multiple engine sets of hardware (plus spare parts), matured technologies, major rig assessment data (controls, combustor, etc.), program reviews, and technology, affordability and sustainability studies.

Additional details, including hypersonics, Spectral Halo Pod, low-cost attritable aircraft technology, and other emerging prototyping efforts, can be provided in the appropriate forum.