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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 I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1202247F I AF TENCAP							
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	-	37.489	28.413	31.914	0.000	31.914	27.189	21.525	21.846	22.293	Continuing	Continuing
670001: Air Force TENCAP	-	37.489	28.413	31.914	0.000	31.914	27.189	21.525	21.846	22.293	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

## Note

In FY2018, PE 0207247F, AF TENCAP efforts were transferred to PE 1202247F, AF TENCAP, due to the creation of a new Major Force Program for Space. FY2016 and FY2017 funding is now documented in the exhibits for PE 1202247F.

## A. Mission Description and Budget Item Justification

Air Force TENCAP increases warfighter effectiveness through the exploitation of national capabilities and promotes cross-domain integration of these capabilities into military operations/training, intelligence, surveillance and reconnaissance (ISR) activities.

AF TENCAP exploits existing air, space, cyber, national and global ISR, and Non-Traditional ISR (NTISR) for operational and tactical applications by rapidly prototyping and providing capability demonstrations. Projects are designed to transition to warfighters and/or national intelligence agencies for operational use, sustainment and appropriate acquisition Programs of Record for further development. AF TENCAP projects can influence the design and operation of current and future air, space, cyber, national and global ISR and NTISR while providing situational awareness to warfighters, national intelligence agency organizations and units.

Program consists of multiple small projects supporting one of the Air Force Core Function Mission Areas (CFMAs). Projects are executed to provide continued support to the National Warfighter, operational and Tactical Warfighter, and to Special Operations Forces.

In FY2018, PE 0207247F, AF TENCAP efforts were transferred to PE 1202247F, AF TENCAP, due to the creation of a new Major Force Program for Space. FY2016 and FY2017 funding is now documented in the exhibits for PE 1202247F.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1202247F I AF TENCAP				
B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	
Previous President's Budget	31.428	28.413	22.821	0.000	22.821	
Current President's Budget	37.489	28.413	31.914	0.000	31.914	
Total Adjustments	6.061	0.000	9.093	0.000	9.093	
• 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	6.061	0.000				
• SBIR/STTR Transfer	0.000	0.000				
• Other Adjustments	0.000	0.000	9.093	0.000	9.093	
Change Summary Explanation						
- FY16: Below Threshold Reprogramming for \$3.261M for Talon HATE development and \$2.800M for Talon SPITBALL development efforts.						
- FY18: \$9.093M add for Talon SPITBALL development efforts.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2016	FY 2017	FY 2018
Title: Exploitation Applications				9.207	21.004	22.914
Description: Exploiting existing air, space, cyber, national and global ISR, and Non-Traditional ISR (NTISR) for operational and tactical applications by rapidly prototyping, demonstrating capability, and influencing the design and operation of future space, cyber, national and global ISR, and NTISR systems for tactical users.						
FY 2016 Accomplishments:						
- Continued rapid prototype development of the AF TENCAP Portfolio comprised of 30+ Talon projects across the Air Force's twelve CFMA. (Talon is an approved and funded AF TENCAP effort)						
- Executed projects which provided support to the National Warfighter, Operational and Tactical Warfighter, and Special Operations Forces						
FY 2017 Plans:						
- Continue to rapidly prototype projects and focus warfighter support and resource allocation based on AF TENCAP mission/ investment areas as a reflection of CFMAs						

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<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>		<b>R-1 Program Element (Number/Name)</b> PE 1202247F I AF TENCAP		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
- Continue to execute projects which provide continued support to the National Warfighter, Operational and Tactical Warfighter, and Special Operations Forces  - Initiate "Classified Effort"  <b>FY 2018 Plans:</b> - Will continue to rapidly prototype projects and focus warfighter support and resource allocation based on AF TENCAP mission/ investment areas as a reflection of Air Force CFMAs  - Will continue to execute projects which provide continued support to the National Warfighter, Operational and Tactical Warfighter, and Special Operations Forces  - Will continue "Classified Effort"				
<b>Title:</b> Talon HATE  <b>Description:</b> Talon HATE is a technology prototype to evaluate the military utility of a next-generation capability for the F-15C providing multi-domain information to tactical users. Talon HATE will provide a multi-domain environment for enhanced capability to the warfighter.  <b>FY 2016 Accomplishments:</b> - Continued development, testing, and fielding of four multi-domain fused information pods on F-15s  <b>FY 2017 Plans:</b> - Complete development, testing, and fielding of four multi-domain fused information pods on F-15s  <b>FY 2018 Plans:</b> N/A		22.749	6.408	0.000
<b>Title:</b> Talon SPITBALL  <b>Description:</b> Talon SPITBALL is a technology prototype to develop jam-resistant antenna for next-generation aircraft. Talon SPITBALL will enable tactical communications and intelligence for advanced aircraft operating in denied environments.  <b>FY 2016 Accomplishments:</b> - Continued development of jam-resistant antenna effort for advanced aircraft  <b>FY 2017 Plans:</b>		5.533	1.001	9.000

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>								<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	
- Continue development of jam-resistant antenna effort for advanced aircraft											
<b>FY 2018 Plans:</b> - Will continue development and test of jam-resistant antenna effort for advanced aircraft											
<b>Accomplishments/Planned Programs Subtotals</b>								37.489	28.413	31.914	
<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<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 Complete</u>	<u>Total Cost</u>
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
<b>Remarks</b>											
<b>E. Acquisition Strategy</b>											
Projects are selected based upon needs identified by the program's customers - DOD Departments, Combatant Commands, Components, MAJCOMs, and/or National Intelligence Agencies. Many projects are executed via existing contracts maintained by other agencies; others are executed via Air Force TENCAP contracts established with vendors responding to annual Broad Agency Announcements. The U.S. government organization sponsoring a project is responsible for assuming acquisition, deployment, logistics, sustainment and budgetary responsibilities for the developed capability after it has been successfully demonstrated by Air Force TENCAP.											
AF TENCAP projects typically use an incremental acquisition strategy. AF TENCAP utilizes a disciplined systems engineering approach that allows program team to solve problems through a series of segments. Each increment has to be successful to pursue the following segment which mitigates cost and schedule risk.											
Contracts funded in this program element will be awarded using competitive procedures to the maximum extent possible.											
<b>F. Performance Metrics</b>											
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 / 7						R-1 Program Element (Number/Name) PE 1202247F / AF TENCAP				Project (Number/Name) 670001 / Air Force TENCAP					
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
Exploitation Applications	Various	Various : Various	-	8.707	Dec 2015	19.554	Dec 2016	21.821	Dec 2017	0.000		21.821	Continuing	Continuing	-
Talon HATE	C/CPFF	Boeing : Huntington Beach, CA	-	21.749	Jan 2016	6.158	Jan 2017	0.000		0.000		0.000	0.000	27.907	-
Talon SPITBALL	C/CPFF	Ball Aerospace : Littleton, CO	-	5.533	Dec 2015	1.001	Dec 2016	9.093	Dec 2017	0.000		9.093	Continuing	Continuing	-
Subtotal			-	35.989		26.713		30.914		0.000		30.914	-	-	-
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 Oversight (PMA)	Various	Various : Various	-	0.500	Dec 2015	1.450	Dec 2016	1.000	Dec 2017	0.000		1.000	Continuing	Continuing	-
Program Support - Talon Hate	Various	Various : Various	-	1.000	Jan 2016	0.250	Jan 2017	0.000		0.000		0.000	0.000	1.250	-
Subtotal			-	1.500		1.700		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			-	37.489		28.413		31.914		0.000		31.914	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force							Date: May 2017		
Appropriation/Budget Activity 3600 / 7				R-1 Program Element (Number/Name) PE 1202247F / AF <i>TENCAP</i>		Project (Number/Name) 670001 / Air Force <i>TENCAP</i>			
	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									

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: FY 2018 Air Force</b>			<b>Date: May 2017</b>		
<b>Appropriation/Budget Activity</b> 3600 / 7			<b>R-1 Program Element (Number/Name)</b> PE 1202247F / AF TENCAP		
			<b>Project (Number/Name)</b> 670001 / Air Force TENCAP		

	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
FY 2016 Exploitation Applications Developed																												
FY 2016 Exploitation Applications Tested, Evaluated, and Released																												
FY 2017 Exploitation Applications Developed																												
FY 2017 Exploitation Applications Tested, Evaluated, and Released																												
FY 2018 Exploitation Applications Developed																												
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FY 2021 Exploitation Applications Developed																												
FY 2021 Exploitation Applications Tested, Evaluated, and Released																												
FY 2022 Exploitation Applications Developed																												
Talon HATE Developed																												
Talon HATE Integrated /Tested																												
Talon SPITBALL Developed																												
Talon SPITBALL Integrated/Tested																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Air Force			<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1202247F / AF <i>TENCAP</i>	<b>Project (Number/Name)</b> 670001 / Air Force <i>TENCAP</i>	

## Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
FY 2016 Exploitation Applications Developed	1	2016	2	2017
FY 2016 Exploitation Applications Tested, Evaluated, and Released	2	2017	3	2017
FY 2017 Exploitation Applications Developed	1	2017	2	2018
FY 2017 Exploitation Applications Tested, Evaluated, and Released	2	2018	3	2018
FY 2018 Exploitation Applications Developed	1	2018	2	2019
FY 2018 Exploitation Applications Tested, Evaluated, and Released	2	2019	3	2019
FY 2019 Exploitation Applications Developed	1	2019	2	2020
FY 2019 Exploitation Applications Tested, Evaluated, and Released	2	2020	3	2020
FY 2020 Exploitation Applications Developed	1	2020	2	2021
FY 2020 Exploitation Applications Tested, Evaluated, and Released	2	2021	3	2021
FY 2021 Exploitation Applications Developed	1	2021	2	2022
FY 2021 Exploitation Applications Tested, Evaluated, and Released	2	2022	3	2022
FY 2022 Exploitation Applications Developed	1	2022	4	2022
Talon HATE Developed	1	2016	4	2016
Talon HATE Integrated /Tested	1	2016	2	2017
Talon SPITBALL Developed	1	2016	2	2019
Talon SPITBALL Integrated/Tested	1	2019	4	2019

### Note

Most project selection activities occur approximately per the timelines shown, but some projects are initiated on a rolling basis throughout each year in response to time-sensitive operational requirements.