Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Army											Date: March 2019	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0605024A *I Anti-Tamper Technology Support*						
COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	4.009	7.251	8.491	-	8.491	8.691	8.985	9.081	7.249	Continuing	Continuing
FB1: *Anti-Tamper Technology Support*	-	4.009	7.251	8.491	-	8.491	8.691	8.985	9.081	7.249	Continuing	Continuing

Note

Prior to FY17, the Anti-Tamper Technology Support program was funded under APE 0605801A M46.

A. Mission Description and Budget Item Justification

Anti-Tamper (AT) Technology Support. The Protective Technologies (PT) organization is the Army's Technical Center for the DoD AT program, which is focused on preventing exploitation reverse engineering (RE) of U.S. systems lost or captured on the battlefield or sold via Foreign Military Sales (FMS) or Direct Commercial Sales (DCS). In support of this mission, PT's classified efforts are focused on AT Validation and Verification (V&V) activities with Army programs, AT/RE Lab facilities and equipment and AT/RE Lab assessments.

B. Program Change Summary ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	4.094	4.254	7.017	-	7.017
Current President's Budget	4.009	7.251	8.491	-	8.491
Total Adjustments	-0.085	2.997	1.474	-	1.474
• Congressional General Reductions	-0.002	-0.003			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	3.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.083	-			
• Adjustments to Budget Years	-	-	1.474	-	1.474

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2018	FY 2019
Project: FB1: *Anti-Tamper Technology Support*		
Congressional Add: *Anti-Tamper (AT) Congressional Add*	-	3.000
Congressional Add Subtotals for Project: FB1	-	3.000
Congressional Add Totals for all Projects	-	3.000

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Army		**Date:** March 2019
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0605024A *I Anti-Tamper Technology Support*	

Change Summary Explanation

FY 2019 - Congressional general reduction of $.003 million and Congressional Add funds of $3.00 million to allow acceleration of current AT efforts.

FY 2020 increase of $1.474 million supports additional Army directed AT efforts.

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army										Date: March 2019	
Appropriation/Budget Activity 2040 I 7				**R-1 Program Element (Number/Name)** PE 0605024A I *Anti-Tamper Technology Support*						**Project (Number/Name)** FB1 I *Anti-Tamper Technology Support*	
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
FB1: *Anti-Tamper Technology Support*	-	4.009	7.251	8.491	-	8.491	8.691	8.985	9.081	7.249	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Anti-Tamper (AT) Technology Support. The Protective Technologies (PT) organization is the Army's Technical Center for the DoD AT program, which is focused on preventing exploitation reverse engineering (RE) of U.S. systems lost or captured on the battlefield or sold via Foreign Military Sales (FMS) or Direct Commercial Sales (DCS). In support of this mission, PT's classified efforts are focused on AT Validation and Verification (V&V) activities with Army programs, AT/RE Lab facilities and equipment and AT/RE Lab assessments.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Title: Anti-Tamper (AT) Technology Support	4.009	4.159	8.491

Description: AT is a DoD program that encompasses the systems engineering activities intended to prevent and/or delay exploitation of critical technologies in U.S. weapon systems. These activities involve the entire life-cycle of systems acquisition, including research, development, implementation, and testing of AT measures.

FY 2019 Plans:
Build and maintain the PT core team of subject matter experts (SMEs) available for this mission to support the development of and evaluate the AT designs for Army programs. In support of that primary mission, continue to build state-of-the-art RE capabilities to facilitate technical assessments of micro-electronic parts used in the electronic designs of critical Army weapons systems.

FY 2020 Plans:
Will continue to build and maintain the PT core team of subject matter experts (SMEs) available for this ongoing mission to support the development of Army programs and evaluating their AT architectures. In support of that primary mission, PT must and will continue to build and maintain state-of-the-art RE capabilities to facilitate technical assessments to evaluate the vulnerabilities of micro-electronic components used in the electronic designs of Army weapons systems with critical program information (CPI) that requires protection.

FY 2019 to FY 2020 Increase/Decrease Statement:
Funding change supports increased requirement to provide subject matter expertise and systems engineering activities to evaluate and support efforts to prevent or deter reverse engineering of Anti-Tamper architectures on additional Army Acquisition Programs.

Title: FY2019 SBIR/STTR Transfer	-	0.092	-

PE 0605024A: *Anti-Tamper Technology Support*
Army

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		**Date:** March 2019
Appropriation/Budget Activity 2040 *I* 7	**R-1 Program Element (Number/Name)** PE 0605024A *I Anti-Tamper Technology Support*	**Project (Number/Name)** FB1 *I Anti-Tamper Technology Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Description: FY2019 SBIR/STTR Transfer *FY 2019 Plans:* FY2019 SBIR/STTR Transfer *FY 2019 to FY 2020 Increase/Decrease Statement:* FY2019 SBIR/STTR Transfer			
Accomplishments/Planned Programs Subtotals	4.009	4.251	8.491

	FY 2018	FY 2019
Congressional Add: Anti-Tamper (AT) Congressional Add	-	3.000
FY 2019 Plans: Anti-Tamper (AT) Congressional Add		
Congressional Adds Subtotals	-	3.000

C. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

D. Acquisition Strategy
 N/A

E. Performance Metrics
 N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army			Date: March 2019

Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0605024A / Anti-Tamper Technology Support	Project (Number/Name) FB1 / Anti-Tamper Technology Support

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AT CA - Accelerate new Novel Tech Solutions	TBD	AMRDEC : , Redstone Arsenal AL	-	-		3.000	Jan 2019	-		-		-	0.000	3.000	-
Subtotal			-	-		3.000		-		-		-	0.000	3.000	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AT V&V Activities	Various	Redstone Arsenal & Prime Contract locations : Redstone Arsenal	-	1.492	Jul 2018	1.945	Oct 2018	2.947	Oct 2019	-		2.947	0.000	6.384	-
FY2019 SBIR/STTR Transfer	TBD	TBD : TBD	-	-		0.092	Oct 2018	-		-		-	0.000	0.092	-
Subtotal			-	1.492		2.037		2.947		-		2.947	0.000	6.476	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AT/RE Lab Facilities & Equipment	Various	Redstone Arsenal, AL : Redstone Arsenal, AL	-	1.713	Jul 2018	1.352	Oct 2018	3.696	Oct 2019	-		3.696	0.000	6.761	-
Subtotal			-	1.713		1.352		3.696		-		3.696	0.000	6.761	N/A

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Army												**Date:** March 2019		
Appropriation/Budget Activity 2040 *I* 7						**R-1 Program Element (Number/Name)** PE 0605024A *I Anti-Tamper Technology Support*						**Project (Number/Name)** FB1 *I Anti-Tamper Technology Support*		

Test and Evaluation ($ in Millions)				**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 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**
AT/RE Laboratory Assessments	Various	Redstone Arsenal, AL : Redstone Arsenal, AL	-	0.804	Jul 2018	0.862	Oct 2018	1.848	Oct 2019	-		1.848	0.000	3.514	-
Subtotal			-	0.804		0.862		1.848		-		1.848	0.000	3.514	N/A

	Prior Years	**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	4.009		7.251		8.491		-		8.491	0.000	19.751	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army		Date: March 2019
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0605024A / Anti-Tamper Technology Support	**Project (Number/Name)** FB1 / Anti-Tamper Technology Support

Event Name	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
AT V&V Activities																												
AT/RE Lab Facilities and Equipment																												
AT/RE Laboratory Assessments																												
AT Congressional Add - New Novel Tech Solutions																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Army		**Date:** March 2019
Appropriation/Budget Activity 2040 *I* 7	**R-1 Program Element (Number/Name)** PE 0605024A *I Anti-Tamper Technology Support*	**Project (Number/Name)** FB1 *I Anti-Tamper Technology Support*

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
AT V&V Activities	1	2017	4	2024
AT/RE Lab Facilities and Equipment	1	2017	4	2024
AT/RE Laboratory Assessments	1	2017	4	2024
AT Congressional Add - New Novel Tech Solutions	2	2019	4	2019