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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Navy **Date:** March 2023

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605024N / <i>Anti-Tamper Technology Support</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	23.033	8.393	7.271	8.340	-	8.340	11.569	10.564	9.918	10.121	Continuing	Continuing
2801: <i>Anti-Tamper</i>	4.180	1.392	1.582	1.626	-	1.626	1.635	1.670	1.704	1.740	Continuing	Continuing
3414: <i>Anti-Tamper Technology Support</i>	18.853	7.001	5.689	6.714	-	6.714	9.934	8.894	8.214	8.381	Continuing	Continuing

A. Mission Description and Budget Item Justification

Develops new and novel Anti-Tamper technologies for all Department of Navy weapon and combat systems. The technologies to be developed will be new countermeasures to prevent reverse engineering of critical U.S. military systems. The technologies include secure processing, sensors, architecture components, and enabling technologies.

This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	8.426	7.271	10.375	-	10.375
Current President's Budget	8.393	7.271	8.340	-	8.340
Total Adjustments	-0.033	0.000	-2.035	-	-2.035
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.033	0.000			
• Program Adjustments	0.000	0.000	-2.114	-	-2.114
• Rate/Misc Adjustments	0.000	0.000	0.079	-	0.079

Change Summary Explanation

FY24 funding decrease due to contract award delays associated with changing to a Multiple Award Contract - Indefinite Delivery / Indefinite Quantity (MAC IDIQ) vehicle due to authorization changes in competitive procedures for Broad Agency Announcements (BAAs).

Schedule 3414: N/A

Schedule 2801: N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy **Date:** March 2023

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605024N / <i>Anti-Tamper Technology Support</i>	Project (Number/Name) 2801 / <i>Anti-Tamper</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
2801: <i>Anti-Tamper</i>	4.180	1.392	1.582	1.626	-	1.626	1.635	1.670	1.704	1.740	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Anti-Tamper Program - Perform as the Navy Technical Process Owner for the Anti-Tamper (AT) systems engineering activity that is intended to prevent and/or delay the exploitation of critical technologies in U.S. Systems. Manage the research, design, development, implementation, and testing of AT measures. Coordinate with Department of Defense AT Executive Agent and implement Department of Navy AT policy in conjunction with the Deputy Assistant Secretary Navy. Manage Security and Information Security requirements commensurate with the requirements of ALL Navy Programs throughout their lifecycles.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: Anti Tamper Support	1.392	1.582	1.626	0.000	1.626
Articles:	-	-	-	-	-
FY 2023 Plans:					
Continue championing new technology with a focused and disciplined approach of development, assessment, evaluation, and transition to meet Navy program AT requirements. Maintain role in Anti-Tamper policy development for implementation and execution by the SYSCOMs incorporating Navy program AT requirements. Provide secure facilities, networks, computers, video/telephone conference and support personnel for collateral and classified operational environments to enable Anti-Tamper implementation and execution by SYSCOM's programs, incorporating AT requirements.					
FY 2024 Base Plans:					
Continue championing new technology with a focused and disciplined approach of development, assessment, evaluation, and transition to meet Navy program AT requirements. Maintain role in Anti-Tamper policy development for implementation and execution by the SYSCOMs incorporating Navy program AT requirements. Provide secure facilities, networks, computers, video/telephone conference and support personnel for collateral and classified operational environments to enable Anti-Tamper implementation and execution by SYSCOM's programs, incorporating AT requirements.					
FY 2024 OCO Plans:					
N/A					
FY 2023 to FY 2024 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605024N / <i>Anti-Tamper Technology Support</i>	Project (Number/Name) 2801 / <i>Anti-Tamper</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Increase will be used to meet Anti-Tamper support demands and SYSCOM AT policy implementation.					
Accomplishments/Planned Programs Subtotals	1.392	1.582	1.626	0.000	1.626

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

The program will fund project to provide secure facilities, networks, computers, video/telephone conference and support personnel for collateral and Special Program operational environments.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy												Date: March 2023			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 5				PE 0605024N / Anti-Tamper Technology Support				2801 / Anti-Tamper							
Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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
Product Development	WR	NAWCWD : China Lake, CA	3.305	1.092	Nov 2021	1.240	Nov 2022	1.291	Nov 2023	-		1.291	Continuing	Continuing	Continuing
Subtotal			3.305	1.092		1.240		1.291		-		1.291	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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	WR	NAWCWD : China Lake, CA	0.875	0.300	Oct 2021	0.342	Oct 2022	0.335	Nov 2023	-		0.335	Continuing	Continuing	Continuing
Subtotal			0.875	0.300		0.342		0.335		-		0.335	Continuing	Continuing	N/A
Project Cost Totals			4.180	1.392		1.582		1.626		-		1.626	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy **Date:** March 2023

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605024N / <i>Anti-Tamper Technology Support</i>	Project (Number/Name) 2801 / <i>Anti-Tamper</i>
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Proj 2801	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
<i>Anti Tamper</i>																												
Product Development	<i>Anti Tamper Technology Development Plan</i>																											
Intelligence Analysis	<i>Anti Tamper Technology Development Intelligence Analysis</i>																											
Anti Tamper Steering Group	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605024N / <i>Anti-Tamper Technology Support</i>	Project (Number/Name) 2801 / <i>Anti-Tamper</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2801				
Product Development: Anti Tamper Technology Development Plan	1	2022	4	2028
Intelligence Analysis: Anti Tamper Technology Intelligence Analysis	1	2022	4	2028
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 1-2022	1	2022	1	2022
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 3-2022	3	2022	3	2022
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 1-2023	1	2023	1	2023
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 3-2023	3	2023	3	2023
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 1-2024	1	2024	1	2024
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 3-2024	3	2024	3	2024
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 1-2025	1	2025	1	2025
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 3-2025	3	2025	3	2025
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 1-2026	1	2026	1	2026
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 3-2026	3	2026	3	2026
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 1-2027	1	2027	1	2027
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 3-2027	3	2027	3	2027
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 1-2028	1	2028	1	2028
Anti Tamper Steering Group: Anti Tamper Technology Steering Group 3-2028	3	2028	3	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy										Date: March 2023		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0605024N / <i>Anti-Tamper Technology Support</i>				Project (Number/Name) 3414 / <i>Anti-Tamper Technology Support</i>			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
3414: <i>Anti-Tamper Technology Support</i>	18.853	7.001	5.689	6.714	-	6.714	9.934	8.894	8.214	8.381	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project develops new and novel Anti-Tamper technologies for all Department of Navy weapon and combat systems. The technologies to be developed will be new countermeasures to prevent reverse engineering of critical U.S. military systems. The technologies include secure processing, sensors, architecture components, and enabling technologies. Low technology readiness level projects will be tested for maturation and implemented to protect US technologies. Government laboratory expertise will mature in Anti Tamper technologies and techniques. Integration of various techniques will enhance the strength of the protection scheme which limits the opportunities to exploit our technological advantage on the battlefield.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: Anti Tamper Technology Development	7.001	5.689	6.714	0.000	6.714
Articles:	-	-	-	-	-
Description: This project develops new and novel Anti-Tamper technologies for all Department of Navy weapon and combat systems. The technologies to be developed will be new countermeasures to prevent reverse engineering of critical U.S. military systems. The technologies include secure processing, sensors, secure architecture components, and enabling technologies.					
FY 2023 Plans: Continue development of new and novel technologies that will become reverse engineering countermeasures for Department of the Navy (DoN) weapon and combat systems. The project will include awarding technology development contracts and securing engineering support from DoN engineering facilities. Test and perform technical evaluations of low technical readiness level projects for implementation to protect US technologies. Extensively evaluate the technology prototypes and demonstration units in the labs, which will provide increased technical information and feedback to the technology developers.					
FY 2024 Base Plans: Continue development of new and novel technologies that will become reverse engineering countermeasures for Department of the Navy (DoN) weapon and combat systems. The project will include awarding technology development contracts and securing engineering support from DoN engineering facilities. Test and perform technical evaluations of low technical readiness level projects for implementation to protect US technologies.					

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605024N / <i>Anti-Tamper Technology Support</i>	Project (Number/Name) 3414 / <i>Anti-Tamper Technology Support</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
<p>Extensively evaluate the technology prototypes and demonstration units in the labs, which will provide increased technical information and feedback to the technology developers. The technology development tasks of QuickSilver (QSD) and Advanced Manufacturing for Technology Protection (AMTP) will consume the additional FY24 funding. QSD is working on transitioning technologies which is above-and-beyond the technical work currently scoped and AMTP has gained so much community interest that the AMTP Consortium is needing to expand the OTA technology demos. These technology development tails are crucial to keeping the technologies headed towards transition.</p> <p>FY 2024 OCO Plans: N/A</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Increase between FY23 and FY24 will be used to fully fund technology development tasks, narrow the technology investment gap and provide the necessary security postures. Extensively evaluate the technology prototypes and provide increased technical information and feedback to the technology developers.</p>					
Accomplishments/Planned Programs Subtotals	7.001	5.689	6.714	0.000	6.714

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

This is a non-ACAT program. The strategy will be to issue technology development contracts and use Department of Navy (DoN) labs for technology development, along with using DoN engineering organizations for engineering support.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy **Date:** March 2023

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605024N / <i>Anti-Tamper Technology Support</i>	Project (Number/Name) 3414 / <i>Anti-Tamper Technology Support</i>
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Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
Primary Hardware Dev	WR	NAWCWD : China Lake, CA	13.221	4.900	Oct 2021	4.004	Oct 2022	4.816	Oct 2023	-		4.816	Continuing	Continuing	Continuing
Subtotal			13.221	4.900		4.004		4.816		-		4.816	Continuing	Continuing	N/A

Remarks
Increase from FY 2023 to FY 2024 will be used to extensively evaluate the technology prototypes and provide increased technical information and feedback to the technology developers.

Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
Developmental Test & Evaluation (DT&E)	WR	NAWCWD : China Lake, CA	5.632	2.101	Oct 2021	1.685	Oct 2022	1.898	Oct 2023	-		1.898	Continuing	Continuing	Continuing
Subtotal			5.632	2.101		1.685		1.898		-		1.898	Continuing	Continuing	N/A

Remarks
Increase from FY 2023 to FY 2024 will be used to extensively evaluate the technology prototypes and provide increased technical information and feedback to the technology developers.

	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	18.853	7.001	5.689	6.714	-	6.714	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy **Date:** March 2023

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605024N / <i>Anti-Tamper Technology Support</i>	Project (Number/Name) 3414 / <i>Anti-Tamper Technology Support</i>
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Proj 3414	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028							
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
<i>Anti Tamper Support</i>																																
<i>Contract Awards</i>	▲					▲				▲				▲					▲				▲					▲				
Technology Development	<i>Anti Tamper Technology Development</i>																															
Lab Support	<i>Anti Tamper Technology Lab Support</i>																															
Gap Analysis	▲					▲				▲				▲					▲				▲					▲				

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605024N / <i>Anti-Tamper Technology Support</i>	Project (Number/Name) 3414 / <i>Anti-Tamper Technology Support</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 3414</i>				
Contract Awards: Anti Tamper Technology Contract Award 2022	2	2022	2	2022
Contract Awards: Anti Tamper Technology Contract Award 2023	2	2023	2	2023
Contract Awards: Anti Tamper Technology Contract Award 2024	2	2024	2	2024
Contract Awards: Anti Tamper Technology Contract Award 2025	2	2025	2	2025
Contract Awards: Anti Tamper Technology Contract Award 2026	2	2026	2	2026
Contract Awards: Anti Tamper Technology Contract Award 2027	2	2027	2	2027
Contract Awards: Anti Tamper Technology Contract Award 2028	2	2028	2	2028
Technology Development: Anti Tamper Technology Development	2	2022	4	2028
Lab Support: Anti Tamper Technology Lab Support	1	2022	1	2028
Gap Analysis: Anti Tamper Technology Gap Analysis 2022	1	2022	1	2022
Gap Analysis: Anti Tamper Technology Gap Analysis 2023	1	2023	1	2023
Gap Analysis: Anti Tamper Technology Gap Analysis 2024	1	2024	1	2024
Gap Analysis: Anti Tamper Technology Gap Analysis 2025	1	2025	1	2025
Gap Analysis: Anti Tamper Technology Gap Analysis 2026	1	2026	1	2026
Gap Analysis: Anti Tamper Technology Gap Analysis 2027	1	2027	1	2027
Gap Analysis: Anti Tamper Technology Gap Analysis 2028	1	2028	1	2028