

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Office of the Secretary Of Defense **Date:** March 2023

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 6: RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 0605797D8Z I <i>Maintaining Technology Advantage</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
Total Program Element	-	25.884	32.812	38.923	-	38.923	38.100	36.353	37.527	38.259	Continuing	Continuing
043: <i>Technology Innovation Base</i>	-	6.749	15.944	6.685	-	6.685	6.215	6.332	6.521	6.666	Continuing	Continuing
138: <i>S&T Protection</i>	-	6.968	4.454	12.671	-	12.671	13.464	11.952	12.699	12.942	Continuing	Continuing
139: <i>Joint Acquisition Protection Exploitation Cell (JAPEC)</i>	-	6.161	6.953	14.306	-	14.306	13.241	13.082	13.217	13.451	Continuing	Continuing
158: <i>Program and Technology Protection</i>	-	6.006	5.461	5.261	-	5.261	5.180	4.987	5.090	5.200	Continuing	Continuing

Note

New Start (Y/N): N

A. Mission Description and Budget Item Justification

This program supports the Department's initiatives to Build Sustainable and Long-Term Advantage, and Build a Resilient Joint Force and Defense Ecosystem.

This Program Element provides funding to support efforts to maintain the Department of Defense's (DoD)'s technology advantage. Maturing and implementing the Office of the Under Secretary of Defense (Research and Engineering)'s (OUSD(R&E)) technology priorities requires a healthy and capable National Security Innovation Base (NSIB). Additionally, the targeting of U.S. capabilities by our strategic competitors creates the potential to degrade core U.S. military technological advantages through unwanted technology transfer from the industrial innovation base. The technology transfer, including unclassified technology, threatens DoD's ability to maintain the technology advantage required to support the lethality and survivability of the Joint Force.

The DoD is executing a plan to maintain DoD's technology advantage:

- (1) The DoD is promoting strategic technology investments to promote and protect DoD access to new and innovative technology. These investments provide OUSD(R&E)'s ability to determine strategies for future investments to establish and maintain a robust academic and industrial base capable of creating breakthroughs in key areas of basic research, fostering transition and decreasing time to market, and harvesting technologies within the U.S. innovation ecosystem or with likeminded allies.
- (2) Ensure the Department's strategic technology investments are protected against unwanted technology transfer by developing and maintaining the tools and techniques that enable the U.S. engage in technology transfer at the time, place, and parties of our choosing.
- (3) The DoD must combat adversaries' attempts to thwart the U.S. NSIB and associated technology security mechanisms to control technology transfer.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Office of the Secretary Of Defense **Date:** March 2023

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 6: RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 0605797D8Z I <i>Maintaining Technology Advantage</i>
--	---

The Department will support these three efforts by developing the appropriate suite of analytic tools, a data acquisition strategy, and protection activities across the science and technology (S&T) enterprise and programs to address the threat over the long term. S&T protection focuses on ensuring the integrity of the research enterprise through development of policy and conducting adequate due diligence on researchers. Program Protection Planning includes protection of critical program information, critical components and mission functions, and integrates high level security policies and practical expertise to specific RDA practices, systems engineering activities, secure cyber resilient engineering activities, software assurance activities and risk reduction activities. Through this initiative the Department is maturing system security engineering methodologies to protect controlled unclassified information, to include controlled technical information on contractor networks; improve mitigation of supply chain risk management risks; enhance the use of software assurance capability; improve integration of cybersecurity into the engineering processes through secure cyber resilient engineering; mature processes to identify Critical Program Information integration of defense exportability features; expand software assurance capabilities provided by the Joint Federated Assurance Center (JFAC), established in Sec 937 of the National Defense Authorization Act (NDAA) for 2014; and improve program protection planning. This project develops near- and long-term strategies and employs mechanisms to retain the U.S. advantage in current and emerging Critical Technology Areas by addressing the capabilities of the industrial innovation base to develop, test, manufacture, and sustain them. This project also provides support to technology priority leaders in identifying industrial innovation base needs; characterizing and assessing priority technology investments, identifying and mitigating issues and risks impacting the industrial innovation base, and exploiting opportunities to advance technology development, testing, and manufacturing.

B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	26.807	35.414	36.211	-	36.211
Current President's Budget	25.884	32.812	38.923	-	38.923
Total Adjustments	-0.923	-2.602	2.712	-	2.712
• Congressional General Reductions	-	-0.270			
• Congressional Directed Reductions	-	-2.332			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.919	-			
• Program Adjustments	-0.004	-	2.712	-	2.712

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 043: *Technology Innovation Base*

Congressional Add: *Securing American Science and Technology Program*

Congressional Add Subtotals for Project: 043

Congressional Add Totals for all Projects

	FY 2022	FY 2023
	1.000	-
	1.000	-
	1.000	-

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> / BA 6: <i>RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>	

Change Summary Explanation

FY 2024 increase of \$2.712 million is comprised of a realignment of \$0.788 million to support the Historically Black Colleges and Universities/Minority Serving Institutions program, which is a priority of the Under Secretary of Defense for Research and Engineering (USD(R&E)), \$0.038 million to support departmental priorities, a technical adjustment of \$3.317 million to address the Department's need to develop consistent technology protection guidance and actions across the DoD enterprise by integrating, synchronizing, and deconflicting current and future technology protection guidance and actions applied to technologies supporting DoD military capability and an economic assumption of \$0.221 million.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense										Date: March 2023		
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>				Project (Number/Name) 043 / <i>Technology Innovation Base</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
043: <i>Technology Innovation Base</i>	-	6.749	15.944	6.685	-	6.685	6.215	6.332	6.521	6.666	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Technology Industrial Innovation Base (TIIB) effort develops near- and long-term strategies and employs mechanisms to retain the U.S. advantage in current and emerging modernization technology priorities by addressing the capabilities of the industrial innovation base to develop, test, manufacture, and sustain them. This project provides support to technology priority leaders in identifying industrial innovation base needs; characterizing and assessing priority technology investments, identifying and mitigating issues and risks impacting the industrial innovation base, and exploiting opportunities to advance technology development, testing, and manufacturing. One of TIIB’s main objectives is to create balance between promotion of the industrial innovation base while protecting the technology from interference or exploitation by competitors. This balance will aid the Department’s advancing critical and emergent technologies ahead of competitor nations and actors while sustaining a healthy, resilient, and globally competitive industrial innovation base. This portfolio of activity extends efforts initiated in response to FY 2019 National Defense Authorization Act (NDAA) Section 1793.

This project uses a three-step approach: (1) Assess, (2) Protect/Promote; and (3) Monitor. In the first step, TIIB uses emerging technology assessments to translate technology needs to manufacturing and industrial innovation base requirements in order to identify industrial innovation base issues, risks, and opportunities. TIIB created an assessment methodology that incorporates four types of studies to provide a full overview of the technology from a manufacturing and industrial innovation base point of view. The results of the assessments are used to generate industrial-innovation-base inputs to technology roadmaps, develop an investment plan addressing the needs of the industrial innovation base, and create technology and industrial innovation base protection and promotion strategies (second step of the approach). TIIB leverages DoD and Federal Government tools and initiatives to implement the strategies. In the third step, TIIB uses data analytics to measure the success of mitigation and exploitation strategies, establish trends in the markets, and identify the need for additional assessments or changes in investments and strategies.

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

	FY 2022	FY 2023	FY 2024
Title: Technology Industrial Innovation Base	5.749	15.944	6.685
Description: This project uses a three-step approach: (1) Assess, (2) Protect/Promote; and (3) Monitor. In the first step, TIIB uses emerging technology assessments to translate technology needs to manufacturing and industrial innovation base requirements in order to identify industrial innovation base issues, risks, and opportunities. TIIB created an assessment methodology that incorporates four types of studies to provide a full overview of the technology from a manufacturing and industrial innovation base point of view. The results of the assessments are used to generate industrial-innovation-base inputs to technology roadmaps, develop an investment plan addressing the needs of the industrial innovation base, and create technology and industrial innovation base protection and promotion strategies (second step of the approach). TIB leverages DoD and Federal			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>	Project (Number/Name) 043 / <i>Technology Innovation Base</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p>Government tools and initiatives to implement the strategies. In the third step, TIIB uses data analytics to measure the success of mitigation and exploitation strategies, establish trends in the markets, and identify the need for additional assessments or changes in investments and strategies.</p> <p>FY 2023 Plans:</p> <ul style="list-style-type: none"> - Create and implement short-term and long-term strategies to protect and maintain U.S. technology advantage by growing and retaining critical technologies and the innovation base supporting their development, test, manufacturing, and sustainment. - Conduct Industry outreach – including industry days and workshops to define requirements to advance emergent technologies through open-market models and industry-government collaboration. - Sponsor Manufacturing challenges to find solutions to facilitate tech transfer from the labs to the production lines, improve manufacturing process, take advantage of new capabilities related to additive manufacturing and/or the integration of new materials. - Assess market trends and execute financial analysis to determine opportunities for US industry – competition, collaboration with allies, reduction of foreign dependencies. - Assess, promote, protect, and monitor critical technologies and their supply chain. - Manage technology innovation base assessments performed by other DoD and USG Agencies, Federally Funded Research and Development Centers (FFRDCs), University Affiliated Research Center (UARCs), or industry. - Conduct deep dive assessments to identify and address national security innovation base risks, issues, and opportunities related to DoD to include but not limited to: <ul style="list-style-type: none"> - Tools, technologies or techniques associated with development, testing, or manufacturing - Financial health of key industrial partners and suppliers - Workforce need for scientists, engineers, technicians - Single source materials, critical pockets of expertise, impacts to environmental events, exploitation by foreign actors to secure or deter critical elements of the innovation base - Create Technology/Innovation Base strategies for each technology priority area to focus on industrial base affordability, sustainability, and other areas in collaboration with OUSD(R&E) Principal Directors and other stakeholders, as required. - Identify and address new, emerging manufacturing capabilities and technology base gaps that are critical to fielding modernization priorities and other U.S. technological advantage areas, including workforce, engineering and prototyping infrastructure and facilities. - Assessment and strategy development for the hypersonics industrial base in conjunction with projects in PEs 0605518N (Conventional Prompt Strike (Navy)), 0603680D8Z (Defense Manufacturing Science and Technology Program), 0607210D8Z (Industrial Base Analysis and Sustainment Support), 0603680F (Manufacturing Technology Program (Air Force)), and 0902199D8Z (Title III/Defense Production Act Purchases) to reduce the cost of hypersonics weapons materials and production in ongoing development programs. 			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>	Project (Number/Name) 043 / <i>Technology Innovation Base</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p>- Conduct foundational assessments of the Defense Advanced Battery Supply Chain along with funding for DoD battery projects in PEs 0603342D8Z (Defense Innovation Unit (DIU)), 0605798D8Z (Defense Technology Analysis), 0603680D8Z (Defense Wide Manufacturing Science and Technology), 0607210D8Z (Industrial Base Analysis and Sustainment Support), 0603724N (Navy Energy Program), 0603462A (Next Generation Combat Vehicle Advanced Technology, and 0901212N (Service-Wide Support (Not Otherwise Accounted For)).</p> <p>NOTE: Biotechnology protection efforts supporting the Modular Bioindustrial and Resuable (MEMBR) initiative will be executed in P138 and technology protection efforts involving CFIUS, exports controls, and mergers and acquisitions will be executed in P139.</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Identify and address new, emerging manufacturing capabilities and technology base gaps that are critical to fielding modernization priorities and other U.S. technological advantage areas, including workforce, engineering and prototyping infrastructure and facilities. - Advance the emergent technologies and develop a healthy industrial innovation base. - Continue to manage technology innovation base assessments performed by other DoD and USG Agencies, Federally Funded Research and Development Centers (FFRDCs), University Affiliated Research Center (UARCs), or industry. - Continue to conduct deep dive assessments to identify and address national security innovation base risks, issues, and opportunities related to DoD to include but not limited to: <ul style="list-style-type: none"> - Tools, technologies or techniques associated with development, testing, or manufacturing - Financial health of key industrial partners and suppliers - Workforce need for scientists, engineers, technicians - Single source materials, critical pockets of expertise, impacts to environmental events, exploitation by foreign actors to secure or deter critical elements of the innovation base - Continue to create Technology/Innovation Base strategies for each technology priority area to focus on industrial base affordability, sustainability, and other areas in collaboration with OUSD(R&E) Principal Directors and other stakeholders, as required. - Continue to identify and address new, emerging manufacturing capabilities and technology base gaps that are critical to fielding modernization priorities and other U.S. technological advantage areas, including workforce, engineering and prototyping infrastructure and facilities. - Continue to assess and strategize development for the hypersonics industrial base. <p>FY 2023 to FY 2024 Increase/Decrease Statement:</p>			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense	Date: March 2023
--	-------------------------

Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>	Project (Number/Name) 043 / <i>Technology Innovation Base</i>
--	---	---

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
The decrease of \$9.259 million between FY 2023 and FY 2024 is due to a one-time increase in FY 2023 for Hypersonics Industrial Base and Defense Advanced Battery Supply Chain.			
Accomplishments/Planned Programs Subtotals	5.749	15.944	6.685

	FY 2022	FY 2023
Congressional Add: Securing American Science and Technology Program	1.000	-
FY 2022 Accomplishments: This Congressional add will enable expansion of engagements and data-driven analysis to mitigate unwanted technology transfer and foreign influence.		
NOTE: Congressional add will be executed in P138 in FY 2022.		
Congressional Adds Subtotals	1.000	-

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense **Date:** March 2023

Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>	Project (Number/Name) 138 / <i>S&T Protection</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
138: <i>S&T Protection</i>	-	6.968	4.454	12.671	-	12.671	13.464	11.952	12.699	12.942	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

As the Department develops advanced technologies, it must use a rigorous, repeatable methodology to protect technology advantage beyond current Program Protection Planning policy. The production of Technology Area Protection Plans (TAPPs) will generate consistent and balanced protection of critical technology, provide foundational guidance for communicating about the technology to particular audiences, and inform protection and controls integrated with technology promotion activities. This will encompass the lifecycle of basic and applied research, advanced technology development, prototyping, and technology transition to programs. The Department will establish policy to protect critical technology in science and technology (S&T) investments through program protection. The implementation of these policies and TAPPs will have broad impacts across DoD and interagency-wide activities associated with critical technologies, including export controls, foreign investment risk mitigation through the Committee on Foreign Investment in the United States (CFIUS), international agreements, counterintelligence and law enforcement priorities, and development of protection practices with DoD research performers (e.g., the DoD and national laboratories, academia, small businesses, and the broader industrial innovation base).

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

	FY 2022	FY 2023	FY 2024
Title: Science and Technology (S&T) Protection	6.968	4.454	12.671
Description: This project supports efforts to maintain DoD's technology advantage by establishing activities to promote and ensure accountability for mitigating adversary exploitation of technologies critical to national security objectives. This project will develop and oversee S&T policy and practices for informed horizontal protection of emerging and critical technology areas.			
FY 2023 Plans: - Oversee TAPPs for each modernization initiative/critical technology area. - Develop risk review guidelines to mitigate foreign influence in department S&T efforts. - Develop data-driven models and analytical assessment capabilities to proactively identify and prioritize protection and exploitation opportunities to maintain the DoD's technology advantage. - Develop and implement proactive analytic tools supporting the biomanufacturing NSIB to identify strategic competitor programs and entities posing an increased risk of unwanted technology transfer in support of the Modular Bioindustrial and Reusable (MEMBR) efforts.			
FY 2024 Plans: - Update current TAPPs and develop new TAPPs for newly identified Critical Technology Areas. - Develop and institutionalize risk review and due diligence guidelines and efforts that are consistent across the DoD and mitigate foreign influence in S&T efforts.			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>	Project (Number/Name) 138 / <i>S&T Protection</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p>- Assess, improve, and continue the development of new data-driven models and capabilities that enable data-informed identification and implementation of courses of action that balance the promotion and protection of DoD technology advantage.</p> <p>- Continue to develop and implement proactive analytic tools supporting the biomanufacturing NSIB to identify strategic competitor programs and entities posing an increased risk of unwanted technology transfer, and mitigate those risks in support of the Modular Bioindustrial and Reusable (MEMBR) efforts.</p> <p><i>FY 2023 to FY 2024 Increase/Decrease Statement:</i> The increase of \$8.217 between FY 2023 and FY 2024 reflects the Department's need to develop and implement proactive analytic tools supporting the protection of military capabilities that are being developed using emerging technologies, including biotechnology, quantum science, and advanced materials. In previous R-2s, The biotechnology technology protection funds for MEMBR were listed in P043, but are transferred to P138 in this R-2.</p>			
Accomplishments/Planned Programs Subtotals	6.968	4.454	12.671

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense **Date:** March 2023

Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>	Project (Number/Name) 139 / <i>Joint Acquisition Protection Exploitation Cell (JAPEC)</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
<i>139: Joint Acquisition Protection Exploitation Cell (JAPEC)</i>	-	6.161	6.953	14.306	-	14.306	13.241	13.082	13.217	13.451	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The DoD established a joint analysis capability (Joint Acquisition Program and Exploitation Cell (JAPEC)) to conduct comprehensive assessments of controlled unclassified technical information losses, and engage acquisition, intelligence, counterintelligence, and law enforcement sources, to determine consequences and appropriate preventative/mitigation actions against unwanted technology transfer. The JAPEC requires the ability to detect and characterize past technology losses, conduct damage assessments of lost information, and provide various insights with predictive value to support and promote activities. Together with supporting organizations, the JAPEC enables comprehensive, detailed assessments of U.S. military technological vulnerability, as well as inform the development and application of effective policies, countermeasures, and enforcement actions to preserve U.S. technical superiority in all warfighting domains. JAPEC must also reach out to select Allies and Partners in order to develop protection efforts across the extended supply chains resulting from the partnerships created by the global S&T community.

JAPEC, and supporting organizations, require an analytic capability to synchronize, integrate, coordinate and inform the DoD efforts in order to protect the acquisition and investment in sensitive U.S. technologies from adversaries and better exploit opportunities to combat adversary activities. JAPEC will conduct trend analysis of protection efforts for the Department's critical acquisition programs and technologies, incorporate findings into protection processes and activities, and analyze losses, to determine consequences and appropriate requirements, acquisition, programmatic, and strategic courses of action to include deterring our strategic competitors and identifying opportunities to promote the NSIB.

This project also manages the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) responsibilities for CFIUS, including the assessments, reviews, and investigations of transactions on the CFIUS docket, as well as the identification of "non-notified" transactions that are not yet formally before CFIUS. This effort involves the initial screening of all CFIUS transactions (approx. 500 per year) to determine OUSD(R&E) equities, coordination with subject matter experts who provide vulnerability and consequence information to support the assessment of risks to national security presented by each transaction affecting OUSD(R&E) mission space. This effort is also supporting the Department of the Treasury, which chairs CFIUS, in its outreach to partners and allies who are standing up similar capabilities, providing advice and technical assistance in those foreign-to-foreign investments which may indirectly affect U.S. national security. This effort is also the focal point for OUSD(R&E) export control activities, managing the activities necessary to provide technical advice to the Defense Technology Security Administration regarding export control regulations and license review policy. This includes prioritization of critical technologies for inclusion in the Commerce Control List and the U.S. Munitions List and the processing of export license applications involving emergent technologies.

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

	FY 2022	FY 2023	FY 2024
Title: Joint Acquisition Protection Exploitation Cell (JAPEC)	6.161	6.953	14.306

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023		
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>	Project (Number/Name) 139 / <i>Joint Acquisition Protection Exploitation Cell (JAPEC)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>Description: Integrate controlled unclassified information, to include Controlled Technical Information (CTI), protection efforts across the DoD to proactively mitigate losses resulting from unwanted technology transfer and exploit opportunities to combat adversaries that may threaten U.S. military advantage.</p> <p>FY 2023 Plans:</p> <ul style="list-style-type: none"> - Continue development and measurement of protection performance measures. - Continue development of data informed exploitation opportunities to combat adversaries that may threaten U.S. military advantage. - Expand partnering and development of international (bilateral/multilateral) protection practices with select allies into multiple DoD modernization areas. - Continued development and operationalization of critical program and technology enhanced protection. - Continue to integrate with national CI and LE efforts to combat unwanted strategic competitor activities. <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Continue development of protection measures and conduct performance measurements of their effectiveness. - Assess implemented exploitation opportunities to combat adversaries that threatened U.S. military advantage and continue the development of new exploitation opportunities. - Expand partnering and development of international (bilateral/multilateral) protection practices with select allies into multiple DoD Critical Technology Areas. - Assess the operationalization of critical program and technology enhanced protections to inform the implementation of further enhanced protections. - Continue integration with national CI and LE efforts to combat unwanted strategic competitor activities. - Develop consistent technology protection guidance and actions across the DoD enterprise by integrating, synchronizing, and deconflicting current and future technology protection guidance and actions applied to technologies supporting DoD military capability. - Assess and improve the implementation of protection strategies involving CFIUS, export controls, intellectual property, and mergers and acquisitions reviews related to Critical Technology Areas. - Monitor the NSIB and the performance of promote and protect activities. <p>FY 2023 to FY 2024 Increase/Decrease Statement: The increase of \$7.353 million between FY 2023 and FY 2024 reflects the Department's need to develop consistent technology protection guidance and actions across the DoD enterprise by integrating, synchronizing, and deconflicting current and future technology protection guidance and actions applied to technologies supporting DoD military capability. Additionally, the</p>				

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense	Date: March 2023
--	-------------------------

Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>	Project (Number/Name) 139 / <i>Joint Acquisition Protection Exploitation Cell (JAPEC)</i>
--	---	---

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
implementation of protection strategies involving CFIUS, export controls, intellectual property, and mergers and acquisitions reviews related to Critical Technology Areas were previously funded from P043, but will now be funded from P139.			
Accomplishments/Planned Programs Subtotals	6.161	6.953	14.306

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

N/A

Remarks

D. Acquisition Strategy

N/A

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense										Date: March 2023		
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>				Project (Number/Name) 158 / <i>Program and Technology Protection</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
158: <i>Program and Technology Protection</i>	-	6.006	5.461	5.261	-	5.261	5.180	4.987	5.090	5.200	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Department of Defense (DoD) must address cybersecurity and supply chain risks to DoD networks, weapons systems, and information stored and processed on both the DoD and the Defense Industrial Base (DIB) unclassified contractor information networks that support DoD programs. Increased reliance on the internet as a vehicle for sharing information, globalization of the supply chain, and advanced persistent threats (APTs) that can evade commercially available security tools and defeat generic security best practices, drives the need for diligent program protection planning and execution. Activities carried out include supporting implementation of DoDI 5000.83, Technology and Program Protection to Maintain Technological Advantage. Program Protection Planning includes protection of classified and unclassified controlled technical information, critical program information, critical components and critical mission functions, and integrates high level security policies and practical expertise to specific acquisition and S&T practices, secure cyber resilient engineering activities, and risk reduction activities. Through this initiative the Department is maturing system security engineering methodologies to protect controlled unclassified information, to include controlled technical information on contractor information networks; improve mitigation and management of information communication technology supply chain risk management risks, improve integration of cybersecurity into the engineering processes through secure cyber resilient engineering methods, improve software assurance practices, mature processes to identify and protect Critical Program Information, mature processes to integrate defense exportability features, and improve program protection planning. Activities carried out, support implementation of DoD Instruction 5200.44 Trusted Systems and Networks with the use of proven mitigation techniques and tools, the ongoing refinement of risk management processes, and creation of needed technology; implementation of DoD Instruction 5200.39 Critical Program Information (CPI) Identification and Protection Within Research, Development, Test, and Evaluation (RDT&E) and DoD Directive 5200.47 Anti Tamper to identify and protect Critical Program Information; and implementation of DoD Instruction 8582.01 Security of Unclassified DoD Information on Non-DoD Information Systems for Safeguarding Controlled Unclassified Information on contractor owned networks.

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

	FY 2022	FY 2023	FY 2024
Title: Program and Technology Protection	6.006	5.461	5.261
Description: This project provides system security engineering and secure cyber resilient engineering policy, guidance and technical implementation assessments to inform and reduce risks in sharing and storing Controlled Technical Information and data, improve mitigation of supply chain risk management risks, improve integration of cybersecurity into the engineering processes, integrate defense exportability and anti-tamper practices, mature processes to identify Critical Program Information and improve program protection planning. Activities carried out support engineering implementation of DoD instruction 5000.83, Technology and Program Protection to Maintain Technological Advantage; DoD Instruction 5200.44 Trusted Systems and Networks with the use of proven mitigation techniques and tools, the ongoing refinement of risk management processes; implementation of DoD Instruction 5200.39 Critical Program Information (CPI) Identification and Protection Within RDT&E and			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>	Project (Number/Name) 158 / <i>Program and Technology Protection</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p>DoD Directive 5200.47E Anti Tamper to identify and protect Critical Program Information; and implementation of DoD Instruction 8582.01 Security of Unclassified DoD Information on Non-DoD Information Systems for Safeguarding Controlled Unclassified Information on contractor owned networks.</p> <p>FY 2023 Plans: Continue to provide support to Independent Technical Review Assessment and Cyber Vulnerability Review Assessment teams in conduct of broad program protection planning activities to assess: - Conduct of criticality analyses to determine supply chain risk management protections. - Conduct of Critical Program Information analysis to determine anti-tamper protections. - Conduct of secure cyber resilient engineering activities to determine technical cyber risks.</p> <p>Advance the state of the practice of systems security engineering and secure cyber resilient engineering: - Continue activities to support EO 14028, Improving the Nation’s Cybersecurity. - Continue development of methodologies to identify and mitigate system security risk, to include cybersecurity and supply chain risk. - Continue to develop courseware, refine guidance, provide training, and outreach with government and industry. - Continue to refine guidance, tools and mitigation approaches to mitigate capability, system and technology risks.</p> <p>Safeguard Controlled Unclassified Information, including Controlled Technical Information: - Continue to refine implementation and guidance of marking and dissemination of distribution of technical information. - Continue to refine safeguarding information protection methods for contractor unclassified information networks.</p> <p>Safeguard Critical Program Information: - Continue to refine implementation, guidance and tools to identify Critical Program Information. - Continue to refine Anti-Tamper protections methods to safeguard Critical Program Information.</p> <p>Defense exportability features integration: - Continue to mature processes, methods and guidance for defense exportability features integration. - Continue to develop and refine defense exportability protection methods to improve planning for the exportability of U.S. Defense systems.</p> <p>FY 2024 Plans: Continue to:</p>			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>	Project (Number/Name) 158 / <i>Program and Technology Protection</i>

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

	FY 2022	FY 2023	FY 2024
<p>Provide support to Independent Technical Review Assessment and Cyber Vulnerability Review Assessment teams in conduct of broad program protection planning activities to assess:</p> <ul style="list-style-type: none"> - Conduct of criticality analyses to determine supply chain risk management protections. - Conduct of Critical Program Information analysis to determine anti-tamper protections. - Conduct of secure cyber resilient engineering activities to determine technical cyber risks. <p>Advance the state of the practice of systems security engineering and secure cyber resilient engineering:</p> <ul style="list-style-type: none"> - Continue activities to support EO 14028, Improving the Nation’s Cybersecurity. - Continue development of methodologies to identify and mitigate system security risk, to include cybersecurity and supply chain risk. - Continue to develop courseware, refine guidance, provide training, and outreach with government and industry. - Continue to refine guidance, tools and mitigation approaches to mitigate capability, system and technology risks. <p>Safeguard Controlled Unclassified Information, including Controlled Technical Information:</p> <ul style="list-style-type: none"> - Continue to refine implementation and guidance of marking and dissemination of distribution of technical information. - continue to refine safeguarding information protection methods for contractor unclassified information networks. <p>Safeguard Critical Program Information:</p> <ul style="list-style-type: none"> - Continue to refine implementation, guidance and tools to identify Critical Program Information. - Continue to refine Anti-Tamper protections methods to safeguard Critical Program Information. <p>Defense exportability features integration:</p> <ul style="list-style-type: none"> - Continue to mature processes, methods and guidance for defense exportability features integration. - Continue to develop and refine defense exportability protection methods to improve planning for the exportability of U.S. Defense systems. <p><i>FY 2023 to FY 2024 Increase/Decrease Statement:</i></p>			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense	Date: March 2023
--	-------------------------

Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605797D8Z / <i>Maintaining Technology Advantage</i>	Project (Number/Name) 158 / <i>Program and Technology Protection</i>
--	---	--

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
The decrease of \$0.200 million between FY 2023 and FY 2024 reflects fluctuation in assessment numbers and scope of duties, and maintenance of FY 2024 execution of assessment tasks and support of new emerging technology assignments.			
Accomplishments/Planned Programs Subtotals	6.006	5.461	5.261

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

N/A

Remarks

D. Acquisition Strategy

N/A