Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Office of the Secretary Of Defense	Date: February 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605798D8Z / *Defense Technology Analysis*

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	-	25.815	27.425	16.875	-	16.875	16.721	15.771	16.010	16.287	Continuing	Continuing
796: *Laboratory Resource Management*	-	6.282	6.110	5.445	-	5.445	5.400	4.767	4.837	4.919	Continuing	Continuing
797: *Defense Technology Analysis*	-	5.930	5.487	8.947	-	8.947	8.866	8.633	8.758	8.902	Continuing	Continuing
798: *Defense Support Teams*	-	2.118	1.962	2.483	-	2.483	2.455	2.371	2.415	2.466	Continuing	Continuing
102: *Data Vulnerability Assessment and Analysis*	-	11.485	13.866	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Note

Project 102 funding is realigned to PE 0605797D8Z beginning in FY 2020.

A. Mission Description and Budget Item Justification

The Under Secretary of Defense for Research and Engineering (USD(R&E)) is the principal staff advisor to the Secretary and Deputy Secretary of Defense for research and engineering (R&E) matters. In this capacity, the USD(R&E) has the responsibility to conduct analyses and studies; develop policies; provide technical leadership, oversight and advice; make recommendations; and issue guidance for Department of Defense (DoD) R&E programs. Additionally, the USD(R&E) provides technical support on R&E aspects of programs subject to review by the Defense Acquisition Board, to include assessments of technology maturity consistent with DoD acquisition policy. The mission of the DoD R&E program is to create, demonstrate, prototype, and apply technology that enables affordable and decisive military superiority. Pursuing the R&E mission requires attention to: (1) identification and development of new technological opportunities; (2) insertion of new technologies into warfighting systems and operations; and (3) management and evaluation of the effectiveness of technology programs. This program element (PE) provides mission support to the Office of the USD(R&E) (OUSD(R&E)) covering a wide range of studies and analysis in support of the R&E program and its impacts to the Department's decision to fund Research, Development, Test and Evaluation (RDT&E) efforts.

The PE provides funding for the Defense Laboratory Office within the USD(R&E). The Defense Laboratory Office mission is to craft policy and provide the oversight necessary to both preserve current and develop future DoD in-house laboratory capability such that they continue to generate mission-critical innovations that increase the U.S. military advantage and enhance U.S. national security. The Defense Laboratory Office advocates and supports the DoD laboratory system in three areas: (1) facilities and infrastructure; (2) personnel and quality of workforce; and (3) technology transfer.

The PE provides engineering, scientific, and analytical support to the USD(R&E) in its responsibility for direction, overall quality, and content of the science and technology (S&T) program and to ensure that the technology being developed is affordable and helps minimize system development risk. The Defense Technology Analysis project conducts assessments and analysis to ensure maximum utilization of research and development funds and to accomplish the overall objectives of the S&T program. Funds are required for technical, analytical and management support, equipment and supplies, travel, and publications.

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Office of the Secretary Of Defense	Date: February 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605798D8Z / *Defense Technology Analysis*

The DoD's key expertise for reviewing and guiding R&E programs resides in the USD(R&E). The USD(R&E) staff augment their responsibilities through their connections to technology experts in various fields throughout academia, industry, and government. The Defense Support Teams project supports the directed responsibilities by building teams of technology experts to conduct program technical assessments. The teams analyze the key engineering problem areas and offer adjustments in the development and test plan; alternate technical approaches; or new technologies that could enable successful development. The teams provide unbiased reviews and gather advice from the Nation's leading technical experts.

This PE also provides funding for Data Vulnerability Assessment and Analysis to establish a joint analysis capability to conduct comprehensive assessments of unclassified information losses, engaging acquisition and intelligence sources to determine consequences and appropriate preventative/mitigation actions.

B. Program Change Summary ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	24.365	24.487	28.392	-	28.392
Current President's Budget	25.815	27.425	16.875	-	16.875
Total Adjustments	1.450	2.938	-11.517	-	-11.517
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	3.000	3.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.503	-			
• FFRDC Reduction	-0.047	-0.062	-	-	-
• Internal Realignment for Higher Priorities	-	-	3.500	-	3.500
• Realignment of Project 102 to PE 0605797D8Z	-	-	-14.936	-	-14.936
• Other Program Adjustments	-	-	-0.081	-	-0.081

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2018	FY 2019
Project: 796: *Laboratory Resource Management*		
Congressional Add: *Program Increase - Defense Technology Transfer*	2.831	2.992
Congressional Add Subtotals for Project: 796	2.831	2.992
Congressional Add Totals for all Projects	2.831	2.992

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Office of the Secretary Of Defense	Date: February 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605798D8Z / *Defense Technology Analysis*

Change Summary Explanation

FY 2020 Internal Realignment for Higher Priorities includes:

$1.500 million adjustment to support Defense Technology Transfer pilot programs executed under Project 796.

$2.000 million adjustment for support requirements in the area of Counter-Unmanned Aerial Systems as a result of the USD(R&E) reorganization; executed under Project 797.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Office of the Secretary Of Defense			Date: February 2019
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605798D8Z / *Defense Technology Analysis*	Project (Number/Name) 796 / *Laboratory Resource Management*	

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
796: *Laboratory Resource Management*	-	6.282	6.110	5.445	-	5.445	5.400	4.767	4.837	4.919	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Defense Laboratory Office (DLO) provides advocacy, strategic planning, and policy for the DoD's in-house laboratories. The DoD Laboratory Enterprise consists of more than 60 laboratories with approximately 67,000 employees (approximately 50,000 of whom are scientists and engineers). The Defense Laboratory Office develops plans and investment strategies for laboratory infrastructure, technology transfer programs, and personnel development. Section 211 of the FY 2017 National Defense Authorization Act (NDAA) also transferred the management of the laboratory demonstration program at Science and Technology Reinvention Laboratories (STRLs) from the Under Secretary of Defense for Personnel and Readiness (USD(P&R)) to the Assistant Secretary of Defense for Research and Engineering (ASD(R&E)). Section 218 of the FY 2018 NDAA amended the authority by redesignating management to the Under Secretary of Defense for Research and Engineering (USD(R&E)).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Defense Laboratory Office	3.451	3.118	5.445
Description: Provides advocacy, strategic planning, and policy for the DoD's in-house laboratories. Develops plans and investment strategies for laboratory infrastructure, technology programs, and personnel development. ***FY 2019 Plans:*** • The DLO will conduct strategic planning and policy development for oversight of DoD in-house laboratories and the Laboratory Quality Enhancement Program Panels. • The DLO will continue to process all personnel and laboratory demonstration items and monitor the status of Sec. 233 Management pilot programs in each of the Services. • In addition, the DLO will implement the strategic plan for technology transfer within the Department. ***FY 2020 Plans:*** • The DLO will continue to develop plans, policies and investment strategies for laboratory infrastructure, technology transfer programs, personnel development, and the Laboratory Quality Enhancement Program Panels that supports the in-house Defense Laboratory Enterprise. • The DLO will develop an advanced technical training pilot program to efficiently and effectively provide insight on technology transfer from DoD laboratories to the market. Future initiatives will look at developing a single intellectual property (IP) docketing and tracking system across DoD that will enable real time tracking of the DoD IP portfolio. ***FY 2019 to FY 2020 Increase/Decrease Statement:***			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Office of the Secretary Of Defense		Date: February 2019
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605798D8Z / *Defense Technology Analysis*	**Project (Number/Name)** 796 / *Laboratory Resource Management*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
The increase to FY 2020 from FY 2019 supports the DoD Technology Transfer program.			
Accomplishments/Planned Programs Subtotals	3.451	3.118	5.445

	FY 2018	FY 2019
Congressional Add: Program Increase - Defense Technology Transfer	2.831	2.992
FY 2018 Accomplishments: • Identified innovative, promising and critical technologies in the DoD and Federal laboratories, academia, and the private sector that are in the developmental phase or ready to transfer/transition directly to the warfighter. • Developed and provided manufacturing, design, business guidance and assistance to overcome technical hurdles to transition these technologies for DoD operational use more rapidly, reliably, and cost-effectively. • Performed evaluation of emerging design, development, and manufacturing technology and techniques to evaluate innovative methods to transition technology (i.e., additive manufacturing) and identify and analyze the ability of specific companies to effectively manufacture and deliver innovative technology of interest to the DoD sponsor. • Worked with Program Managers to help transition innovative technologies to the warfighter, including providing systems engineering, material samples, requirements generation, technology scouting, and/or other services associated with improving the transition of technology to the warfighter. • Developed a mature Virtual Industry Day to meet the needs of emerging DoD technology scouting efforts. ***FY 2019 Plans:*** • Initiate innovative technology transfer pilot programs. • Produce engagement tools to highlight mechanisms and enable greater technology transfer to the defense industrial base, non traditional performers and other private sector entities.		
Congressional Adds Subtotals	2.831	2.992

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2020 Office of the Secretary Of Defense		Date: February 2019
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605798D8Z / *Defense Technology Analysis*	**Project (Number/Name)** 796 / *Laboratory Resource Management*

E. Performance Metrics

The performance of the Laboratory Resource Management project is based on the success of initiatives to implement strategic planning objectives. Measures include the quality and timeliness of policy, plans, guidance, reports, and processes.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Office of the Secretary Of Defense			Date: February 2019
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605798D8Z / *Defense Technology Analysis*	Project (Number/Name) 797 / *Defense Technology Analysis*	

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
797: *Defense Technology Analysis*	-	5.930	5.487	8.947	-	8.947	8.866	8.633	8.758	8.902	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Defense Technology Analysis (DTA) project provides engineering, scientific, and analytical support to the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) in its responsibility for direction, overall quality, and content of the science and technology (S&T) program. Furthermore, it ensures that the technology being developed is affordable and minimizes system development risk. The DTA program conducts assessments and analyses to ensure maximum utilization of research and development funds to accomplish the overall objectives of the S&T program. Funds are required for technical, analytical, management support, travel, and publications.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Defense Technology Analysis	5.930	5.487	8.947
Description: The Defense Technology Analysis (DTA) project provides engineering, scientific, and analytical support to the OUSD(R&E) in its responsibility for direction, overall quality, and content of the S&T program. Furthermore, it ensures that the technology being developed is affordable and minimizes system development risk. ***FY 2019 Plans:*** In FY 2019, the DTA project will provide engineering, scientific, analytical, and managerial support to the OUSD(R&E) in developing strategies, plans, and policies to develop and exploit technology; conducting technology analyses, making recommendations, and developing guidance for S&T plans and programs; reviewing acquisition programs and making recommendations to optimize effectiveness of the DoD investments; and oversight of S&T issues and initiatives and responding to Congressional special interests. ***FY 2020 Plans:*** In FY 2020, the DTA project will continue to provide engineering, scientific, analytical, and managerial support to the OUSD(R&E) in developing strategies, plans, and policies to develop and exploit technology; conducting technology analyses, making recommendations, and developing guidance for S&T plans and programs; reviewing acquisition programs and making recommendations to optimize effectiveness of the DoD investments; and oversight of S&T issues and initiatives and responding to Congressional special interests.			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Office of the Secretary Of Defense		Date: February 2019
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605798D8Z / *Defense Technology Analysis*	**Project (Number/Name)** 797 / *Defense Technology Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
The program will also conduct technology analyses to support R&E program investment decisions. For selected acquisition programs and efforts, respective program issues will be reviewed and technical solutions will be offered to program managers. The maturity of technologies that are candidates for transition to acquisition programs will also be assessed. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The increase in FY 2020 represents a realignment of support requirements as a result of the OUSD(R&E) reorganization.			
Accomplishments/Planned Programs Subtotals	5.930	5.487	8.947

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Several indicators allow the Department to measure the success of the DTA program element. The number of efforts funded and completed satisfactorily and the OUSD(R&E) influence on S&T program decisions serve as valuable indicators of the program's effectiveness. Feedback into the oversight mechanisms of the program to guide investment decisions serve as additional metrics.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Office of the Secretary Of Defense			Date: February 2019
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605798D8Z / *Defense Technology Analysis*	Project (Number/Name) 798 / *Defense Support Teams*	

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
798: *Defense Support Teams*	-	2.118	1.962	2.483	-	2.483	2.455	2.371	2.415	2.466	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Project 798 is realigned to Project 797 within the Defense Technology Analysis program element, 0605798D8Z, beginning in FY 2020.

A. Mission Description and Budget Item Justification

The Department's key expertise for reviewing and guiding research and engineering (R&E) programs resides in the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)). The OUSD(R&E) staff augment their responsibilities through connections to technology experts in various fields throughout academia, industry, and government. The Defense Support Teams project supports the directed responsibilities by building teams of technology experts to conduct program technical health check-ups. The teams analyze the key engineering problem areas and offer adjustments in the development and test plans, alternate technical approaches, or new technologies that could enable successful development. The teams provide unbiased reviews and gather advice from the Nation's leading technical experts.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Defense Support Teams	2.118	1.962	2.483
Description: The Defense Support Teams project supports the directed responsibilities by building teams of technology experts to conduct program technical health check-ups. The teams analyze the key problem areas and offer adjustments in the development plans, alternate technical approaches, or new technologies that could enable successful development. The teams provide unbiased reviews and gather advice from the Nation's leading technical experts.			
FY 2019 Plans: In FY 2019, support teams will be established and technology analyses conducted to support R&E program investment decisions. For selected acquisition programs and efforts, the teams will review in technical detail the respective program issues and offer technical solutions to program managers. The support teams will assess the maturity of technologies that are candidates for transition to acquisition programs.			
FY 2020 Plans: In FY 2020, support teams will be established and technology analyses conducted to support R&E program investment decisions. For selected acquisition programs and efforts, the teams will review in technical detail the respective program issues and offer technical solutions to program managers. The support teams will assess the maturity of technologies that are candidates for transition to acquisition programs.			
FY 2019 to FY 2020 Increase/Decrease Statement:			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Office of the Secretary Of Defense		Date: February 2019
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605798D8Z / *Defense Technology Analysis*	**Project (Number/Name)** 798 / *Defense Support Teams*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
The increase from FY 2019 to FY 2020 reflects minor budget adjustments.			
Accomplishments/Planned Programs Subtotals	2.118	1.962	2.483

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Several indicators allow the Department to measure the success of the Defense Technology Analysis (DTA) PE. The number of technological introspections, as evidenced by completed support teams and OUSD(R&E) influence on acquisition decisions, serve as valuable indicators of the program's effectiveness. The establishment and outputs of Defense Support Teams are additional indicators of program metrics. To guide investment decisions, feedback into the oversight mechanisms of the science and technology (S&T) program serve as additional metrics.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Office of the Secretary Of Defense			Date: February 2019
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605798D8Z / *Defense Technology Analysis*	Project (Number/Name) 102 / *Data Vulnerability Assessment and Analysis*	

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
102: *Data Vulnerability Assessment and Analysis*	-	11.485	13.866	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Most DoD technical information resides on unclassified networks where it is at risk of being targeted for cyber espionage campaigns. Protecting DoD unclassified controlled technical information is a high priority for the Department, and is critical to preserving intellectual property and competitive capabilities of our national industrial base. To maintain full confidence in our systems, the Department must also assess the effect the loss of this information has on our warfighting capabilities. DoD contractors who produce or access controlled technical information must incorporate security standards on their networks and report cyber-intrusion incidents that result in the loss of this information. These requirements are important, but insufficient in the face of a determined adversary. The Department must take steps to understand the impacts of losses and rethink how we safeguard our capabilities. This information, while unclassified, includes data and intellectual property concerning defense systems requirements, concepts of operations, technologies, designs, engineering, systems production, and component manufacturing.

This project supports protection of unclassified controlled technical information, and an analysis of losses, to determine consequences and appropriate requirements, acquisition, programmatic, and strategic courses of action.

In FY 2020, this funding is transferred to the Maintaining Technology Advantage PE 0605797D8Z, in accordance with the new OUSD(R&E) re-organization.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Data Vulnerability Program	11.485	13.866	-
Description: The Data Vulnerability Assessment and Analysis project will establish a joint analysis capability to conduct comprehensive assessments of controlled unclassified technical information losses, and will engage acquisition and intelligence sources, to determine consequences and appropriate preventative/mitigation actions.			
FY 2019 Plans: In FY 2019, the program will incorporate changes into governance models and documents to accommodate changes from the Maintaining DoD Technological Advantage CFT and the FY 2017 NDAA Section 901 reorganization. The program will adjust manning for proactive protection efforts linked to the Department's critical acquisition programs and technologies. In addition, it will collect and integrate the Department's critical acquisition programs and tier for proactive protection efforts and conduct trend analysis on the Department's critical acquisition programs and technologies to incorporate findings into the nomination/protection			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Office of the Secretary Of Defense		Date: February 2019
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605798D8Z / *Defense Technology Analysis*	**Project (Number/Name)** 102 / *Data Vulnerability Assessment and Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
processes. The program will finalize colocation with DC3 and DoD DAMO and continue to advance analytic tool suite capabilities and build common data model. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** Level of effort is consistent between FY 2019 and FY 2020. Small changes reflect minor budget fluctuations.			
Accomplishments/Planned Programs Subtotals	11.485	13.866	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

The Data Vulnerability Assessment and Analysis metric is the number of completed cases.