Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Office of the Secretary Of Defense	Date: May 2021
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603342D8Z / *Defense Innovation Unit (DIU)*

COST ($ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	0.000	29.268	35.617	31.873	-	31.873	-	-	-	-	-	-
434: *DIU*	0.000	29.268	35.617	31.873	-	31.873	-	-	-	-	-	-

Note

Defense Innovation Unit Experimental (DIUx) was established in April 2015 and transitioned to DIUx 2.0 in May 2016. Defense Innovation Unit Experimental (DIUx) was transferred from OSD (PE 0602230D8Z) to Washington Headquarters Services (WHS) (PE 0603342D8W). In July 2018, DIUx was realigned from WHS to the Office of the Under Secretary of Defense, Research and Engineering (OUSD(R&E)). In August 2018, Secretary Mattis re-designated DIUx as the Defense Innovation Unit (DIU), removing the “x” (experimental) from the organization name to signify the permanence of the program. Effective FY 2020, DIU funding transferred from WHS to OSD, consistent with the organizational realignment under OUSD(R&E) following the disestablishment of the Office of the USD(Acquisition, Technology, & Logistics). This realignment also integrated the Unit into the broader Department of Defense research and engineering community, which provided opportunities to coordinate and de-conflict similar activities with the military departments, Defense Agencies, Department of Defense laboratories, the Defense Advanced Research Project Agency, the Small Business Innovation Research Program, and other entities in alignment with section 244 of the National Defense Authorization Act for FY 2019.

A. Mission Description and Budget Item Justification

The DIU mission is to strengthen U.S. national security by accelerating the adoption of commercial technology throughout the military and growing the national security innovation base. DIU partners with organizations across the Department of Defense (DoD), from the Services and components to combatant commands and defense agencies, to rapidly prototype and field advanced commercial solutions that address national security challenges. With offices in Silicon Valley, Boston, Austin, and in the Pentagon, DIU connects its DoD partners with leading technology companies across the country.

The 2018 National Defense Strategy asserts that we have returned to an era of inter-state strategic competition with Russia and China, heightening the sense of urgency with which the nation, and Department of Defense (DoD), must reform our acquisition policies and approach to sustaining military-technical superiority. Notably, the critical technologies that forge military-technical superiority are increasingly dual use and rapidly developed by the commercial sector. While adversaries are challenging the U.S. across several dimensions, most importantly, our near peer competitors are at par or ahead of the U.S. in critical technology areas. Consistent with the FY 2020 Office of Management and Budget (OMB)/Office of Science and Technology Policy (OSTP) research and development budget priorities, this new era of competition requires technological superiority to ensure the United States’ ability to project power, maintain international norms and rule of law, to provide credible deterrence, and prevail in conflict.

DIU increases the Department's access to leading-edge commercial technologies and talent, with the ultimate goal of accelerating innovation into the hands of the warfighter. Working across the country, and in collaboration with allied international partners, DIU is developing new ways of doing business, growing our national security innovation base to include more "non-traditional" companies that had previously not collaborated with the military, working with traditional vendors in novel ways to increase efficiency, and challenging innovators to share their knowledge and expertise in support of our nation's defense.

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Through a competitive prototype process, DIU identifies and provides access to technology companies and products on behalf of DoD organizations. Additionally, DIU executes projects to leverage commercial sector technology analogous to military applications thereby increasing dual-use technology agility for the DoD. DIU Prototyping funds facilitate the award of projects that can augment commercial technologies, existing government-owned capabilities, or concepts for defense application.

DIU focus on six technology areas where commercial industry is the lead:
• Advanced Energy and Materials - Leveraging proven advancement in energy and materials technology to enhance capabilities and strengthen resilience across installation and distributed operations.
• Artificial Intelligence (AI)/ Machine Learning (ML) – Applying AI/ML learning to accelerate critical decision making and operation impact.
• Autonomy – Adopting and countering autonomous systems with a focus on human-machine interaction and scalable teaming.
• Cyber – Making enterprise combat information open, accessible, and secure for defense personnel across the globe.
• Human Systems – Optimizing the human system and its enabling platforms through enhanced equipment, innovative training, and novel health applications.
• Space – Developing on-demand access to space, persistent satellite capabilities, and broadband space data transfer.

B. Program Change Summary ($ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	29.398	26.141	26.849	-	26.849
Current President's Budget	29.268	35.617	31.873	-	31.873
Total Adjustments	-0.130	9.476	5.024	-	5.024
• Congressional General Reductions	-	-0.024			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	9.500			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.948	-			
• SBIR/STTR Transfer	-1.073	-			
• Program Adjustment	-	-	5.024	-	5.024
• Cancelled Account	-0.005	-	-	-	-

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2020	FY 2021
Project: 434: *DIU*		
Congressional Add: *Multi Orbital Platform*	-	4.500
Congressional Add: *Small Tactical Imagery Satellites*	-	5.000
Congressional Add Subtotals for Project: 434	-	9.500
Congressional Add Totals for all Projects	-	9.500

Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Office of the Secretary Of Defense	Date: May 2021
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Change Summary Explanation

FY 2021 increase supports Multi Orbital Platform and Small Tactical Imagery Satellites (TacGeo).

FY 2022 increase supports requirement for the Artificial Intelligence (AI) portfolio.

Exhibit R-2A, RDT&E Project Justification: PB 2022 Office of the Secretary Of Defense			Date: May 2021
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603342D8Z / *Defense Innovation Unit (DIU)*	Project (Number/Name) 434 / *DIU*	

COST ($ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
434: *DIU*	0.000	29.268	35.617	31.873	-	31.873	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Office of the Secretary Of Defense		Date: May 2021
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603342D8Z / *Defense Innovation Unit (DIU)*	**Project (Number/Name)** 434 / *DIU*

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• Human Systems – Optimizing the human system and its enabling platforms through enhanced equipment, innovative training, and novel health applications.
• Space – Developing on-demand access to space, persistent satellite capabilities, and broadband space data transfer.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2020	FY 2021	FY 2022
Title: Defense Innovation Unit (DIU)	29.268	26.117	31.873
Description: The U.S. DoD relies on innovation to maintain our nation's ability to deter, and if need be, prevail in conflict. With outposts in Mountain View, California; Cambridge, Massachusetts; Washington, D.C.; and Austin, Texas, DIU serves as a bridge between those in the U.S. Military executing national security and defense missions with companies developing cutting-edge commercial technology. DIU continuously experiments with methods to identify, contract, prototype, and transition novel commercial solutions from leading companies to the warfighter for applications in headquarters or operational environments and transfer technology with commercial entities that would not otherwise do work with the DoD. The end goal is to accelerate DoD adoption of cutting-edge technology and grow the national security innovation base to support U.S. military-technical superiority.			
FY 2021 Plans: DIU will continue its mission to identify and deliver cutting-edge commercial innovation to the Joint Force. DIU is rapidly prototyping and deploying innovative commercial technologies to fill critical capability gaps identified by DoD partners in the Services, components, Defense Agencies, and Combatant Commands. DIU works to solve challenges and issues for the Department in areas such as artificial intelligence and machine learning, autonomy, human systems, cyber, space, and advanced energy and materials.			
FY 2022 Plans: DIU will continue its mission to identify and deliver cutting-edge commercial innovation to the Joint Force. DIU is rapidly prototyping and deploying innovative commercial technologies to fill critical capability gaps identified by DoD customers in the Services, components, Defense Agencies, and Combatant Commands. DIU works to solve challenges and issues for the			

Exhibit R-2A, RDT&E Project Justification: PB 2022 Office of the Secretary Of Defense		Date: May 2021
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603342D8Z / *Defense Innovation Unit (DIU)*	**Project (Number/Name)** 434 / *DIU*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2020	FY 2021	FY 2022
Department in areas such as artificial intelligence and machine learning, autonomy, human systems, cyber, space, and advanced energy and materials. ***FY 2021 to FY 2022 Increase/Decrease Statement:*** The increase in funding supports prototype automation of data access, test and evaluation, and post-deployment monitoring to allow for continuous comparison (i) amongst artificial intelligence (AI) models built for the same application by multiple developers or (ii) of the same AI model built by the same developer, but over various points in time. Additionally, increased funding would enable DIU to prototype a structure by which end users can access models that have been evaluated in this manner in a straightforward way including access, startup procedure, and pricing model. .			
Accomplishments/Planned Programs Subtotals	29.268	26.117	31.873

	FY 2020	FY 2021
Congressional Add: Multi Orbital Platform ***FY 2021 Plans:*** These funds support ongoing work to create multi-orbit platforms in order to enable the establishment of an in-space logistics network. In particular, the funds will accelerate current DIU efforts related to orbital transfer and hosting platforms, in-space refueling, and supporting interfaces. These efforts take place primarily during preliminary and critical design review, which include some initial assembly integration and testing activities.	-	4.500
Congressional Add: Small Tactical Imagery Satellites ***FY 2021 Plans:*** These funds support multiple tactical imagery efforts, to include the U.S. Army Tactical GEOINT ("TacGEO") project requirements for satellite shipment and storage review and on-orbit checkout; the joint-sponsored "Peacetime Indications & Warnings" project requirement for preliminary and critical design reviews; assembly integration & test, flight readiness review, system checkout; and a new U.S. Army unmanned stratospheric systems project requirements for replicating space-based imagery capabilities from high altitude.	-	5.000
Congressional Adds Subtotals	-	9.500

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
• BA 04; O&M: *PE 0901583D8Z*	17.285	12.397	16.659	-	16.659	-	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2022 Office of the Secretary Of Defense		Date: May 2021
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603342D8Z / *Defense Innovation Unit (DIU)*	**Project (Number/Name)** 434 / *DIU*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost

Remarks

DIU O&M mission support funding; prior year RDT&E funds were in PE 0603342D8W.

D. Acquisition Strategy

N/A