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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Washington Headquarters Service **Date:** February 2018

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603342D8W I <i>Defense Innovation Unit Experimental (DIUx)</i>
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COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	29.594	29.364	-	29.364	29.398	29.419	30.037	30.638	Continuing	Continuing
434: <i>DIUx</i>	0.000	0.000	29.594	29.364	-	29.364	29.398	29.419	30.037	30.638	Continuing	Continuing

Note

Defense Innovation Unit Experimental (DIUx) transfer from OSD (PE 0602230D8Z) to WHS (PE 0603342D8W)

The U.S. Department of Defense (DoD) relies on innovation to maintain our nation's ability to deter, and if need be, prevail in conflict. The Defense Innovation Unit Experimental (DIUx) increases the Department's access to leading-edge technologies and talent that reside in the commercial sector, with the ultimate goal of accelerating innovation into the hands of the warfighter. Working across the country, and in collaboration with allied international partners, DIUx is developing new ways of doing business, growing our defense industrial base to include "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.

A. Mission Description and Budget Item Justification

Defense Innovation Unit Experimental (DIUx) was established in April 2015 and DIUx 2.0 in May 2016.

DIUx mission is to accelerate innovation in the commercially-focused technology sector to the warfighter. Initially, DIUx was managed by the Under Secretary of Defense Acquisition, Technology and Logistics, (USD, AT&L) when it was established in July 2015. In May 2016, DIUx was placed under the control of the Secretary of Defense and administratively managed by Washington Headquarters Services (WHS) with a functional realignment of \$148.8 million across the FYDP to WHS.

The DIUx program will fund the development of novel leading-edge technologies emerging from high-tech companies that are not traditional defense contractors. An objective of this program is to obtain innovative ideas from industry that have low technology readiness and are of high priority to DoD leadership. Incoming proposals will be assessed to ensure alignment with the DoD's strategic objectives to increase and strengthen our nation's security.

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B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	0.000	29.594	29.364	-	29.364
Current President's Budget	0.000	29.594	29.364	-	29.364
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation

Initially, DIUx was managed by the Under Secretary of Defense Acquisition, Technology and Logistics, (USD, AT&L) when it was established in July 2015. In May 2016, DIUx was placed under the operational control of the Secretary of Defense and administratively managed by Washington Headquarters Services (WHS),with functional realignment of \$148.8 million across the FYDP Washington Headquarters Services (WHS) beginning in FY 2018.

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Washington Headquarters Service										Date: February 2018		
Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 0603342D8W / <i>Defense Innovation Unit Experimental (DIUx)</i>			Project (Number/Name) 434 / <i>DIUx</i>				
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
434: <i>DIUx</i>	0.000	0.000	29.594	29.364	-	29.364	29.398	29.419	30.037	30.638	Continuing	Continuing

A. Mission Description and Budget Item Justification

DIUx mission is to accelerate innovation to the warfighter by leveraging commercial technology innovations. Initially, this program was managed by the Under Secretary of Defense Acquisition, Technology, and Logistics, (USD, AT&L) with functional realignment of \$148.8 million across the FYDP to Washington Headquarters Services (WHS) beginning in FY 2018. The DIUx program will fund the development of novel leading-edge technologies emerging from high-tech companies that are not traditional defense contractors. An objective of this program is to obtain innovative ideas from industry that have low technology readiness and are of high priority to DoD leadership. Incoming proposals will be assessed to ensure alignment with the DoD's strategic objectives to increase and strengthen our nation's security.

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

	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: Defense Innovation Unit - Experimental (DIUx)	-	29.594	29.364	-	29.364
FY 2018 Plans: The Defense Innovation Unit Experimental (DIUx) is chartered to expand the Department's access to innovative companies and technologies that enable the development of leading-edge, asymmetric capabilities and help spur development of new ways to keep the United States on par or ahead of the nation's most advanced adversaries. The Secretary of Defense's strategic priorities includes improving the Departments lethality through multiple means to include the openness and willingness to evolve by adopting new ideas to ensure a better future for the Department and the Nation. One of the tenets of this priority is to expand the Department's ability to access leading edge technological innovations through commercial partnerships. The funding DIUx executes is critical as it incentivizes non-traditional defense sector companies to work with and invest in advancing DoD future capabilities. Some of the projects undertaken include: - Hardened Network Defense that provides warfighters improved network security by obscuring vital services and data, thereby significantly decreasing the ability of advancing cyber threats to map, attack or exploit tactical systems. - Command, Control, and Situational Awareness web-based software platform that supports user's ability to visualize relevant activities and operational metrics, collaboratively plan and approve defense activities, and monitor/manage subsequent. DIUx projects signal investment targets for venture capital opportunities. While					

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

these are small when compared to the DoD total budget, the 3rd party investment multiplier they generate are without equal.

FY 2019 Base Plans:

The U.S. Department of Defense relies on innovation to maintain our nation's ability to deter, and if need be, prevail in conflict. With outposts in Silicon Valley, Boston Massachusetts, and Austin Texas the Defense Innovation Unit Experimental (DIUx) serves as a bridge between those in the U.S. military executing on some of our nation's toughest security challenges and companies operating at the cutting edge of technology. DIUx is an experiment that continuously repeat how best to identify, contract, and prototype novel innovations through sources traditionally not available to the Department of Defense, with the ultimate goal of accelerating technology into the hands of warfighters and keep them on the cutting edge of technology.

FY 2018 to FY 2019 Increase/Decrease Statement:

FY 2019 Plans Defense Innovation Unit Experimental (DIUx) is one of the Secretary of Defense's priorities in advancing technology, especially artificial intelligence, to help the U.S. Military become more lethal and capable of defending the nation. DIUx's objective is to rapidly solve the problems of our DoD customers and deploy those solutions. Accordingly, DIUx requirements are driven by DoD customers in the Services, Defense Agencies, and Combatant Commands. They come to DIUx with their most challenging and most compelling technological problems. DIUx works to solve challenges and issues for the Department in areas such as Artificial Intelligence and Machine Learning, Autonomy, Human Systems, Information Technology, and Space. DIUx specialized staff carry out the niche functions of its three teams: Venture, Foundry and Engagement. The Venture team identifies emerging commercial technology and explores its military applicability. The Foundry team works with technology that is still maturing and is not yet ready for production and the Engagement Team introduces entrepreneurs to military problems and the military to entrepreneurs.

FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
-	29.594	29.364	-	29.364
Accomplishments/Planned Programs Subtotals				

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

<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019 Base</u>	<u>FY 2019 OCO</u>	<u>FY 2019 Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PE 0901583D8W: O&M	0.000	24.244	40.754	1.000	41.754	40.771	37.637	37.694	37.749	Continuing	Continuing

Remarks

DIUx O&M mission support funding.

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D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Washington Headquarters Service		Date: February 2018
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Remarks
The DIUx program will fund the development of novel leading-edge technologies emerging from high-tech companies that are not traditional defense contractors.

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Washington Headquarters Service		Date: February 2018
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	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>DIUx Partnering</i>																												
Innovation Assessments																												
<i>Technology Assesment</i>																												
Innovation Prototyping																												
<i>Research and Development</i>																												
Delivery coordination																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Washington Headquarters Service		Date: February 2018
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>DIUx Partnering</i>				
Innovation Assessments	4	2018	4	2023
<i>Technology Assesment</i>				
Innovation Prototyping	4	2019	4	2023
<i>Research and Development</i>				
Delivery coordination	3	2020	4	2023