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Exhibit R-2, RDT&E Budget Item Justification: PB 2021 United States Special Operations Command **Date:** February 2020

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 2: Applied Research</i>					PE 1160401BB / <i>SOF Technology Development</i>							
COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	552.604	34.635	37.569	42.464	-	42.464	45.304	46.274	47.388	48.336	Continuing	Continuing
S100: <i>SOF Technology Development</i>	552.604	34.635	37.569	42.464	-	42.464	45.304	46.274	47.388	48.336	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element enables United States Special Operations Command (USSOCOM) to conduct studies and develop laboratory prototypes for applied research and advanced technology development, as well as leverage other organizations' technology projects that may not otherwise be affordable within MFP-11. Applying small incremental amounts of investments to Department of Defense (DoD), other government agencies, and commercial organizations allows USSOCOM to influence the direction of technology development or the schedule against which it is being pursued, and to acquire emerging technologies for Special Operations Forces (SOF). This project provides an investment strategy for USSOCOM to link technology opportunities with capability deficiencies, capability objectives, technology thrust areas, human endurance and sensory performance, and technology development objectives.

B. Program Change Summary (\$ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Previous President's Budget	35.921	40.569	46.674	-	46.674
Current President's Budget	34.635	37.569	42.464	-	42.464
Total Adjustments	-1.286	-3.000	-4.210	-	-4.210
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-3.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.286	-			
• Other Adjustment	-	-	-4.210	-	-4.210

Change Summary Explanation

Funding:

FY 2019: Decrease of \$1.286 million is due to transfer of funds to Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs.

FY 2020: Decrease of \$3.000 million is due to a Congressional directed reduction due to underexecution.

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FY 2021: Decrease of \$4.210 million is due to a comprehensive analysis of future capability by USSOCOM resulting in a reduction of technology concept demonstrations, prototyping, and evaluation of advanced capabilities to better align with the Department's priorities as outlined in the National Defense Strategy (-\$4.210 million).

Schedule: None.

Technical: None.

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Exhibit R-2A, RDT&E Project Justification: PB 2021 United States Special Operations Command **Date:** February 2020

Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 1160401BB / <i>SOF Technology Development</i>	Project (Number/Name) S100 / <i>SOF Technology Development</i>
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COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
S100: <i>SOF Technology Development</i>	552.604	34.635	37.569	42.464	-	42.464	45.304	46.274	47.388	48.336	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project conducts studies and develops laboratory prototypes for applied research and advanced technology developments, and leverages other organizations' technology projects that may not otherwise be affordable within MFP-11. Small incremental co-investments with Department of Defense (DoD), other government agencies, and commercial organizations allow USSOCOM to influence the schedule and direction of technology developments, emerging technologies, and capabilities for Special Operations Forces (SOF), with significant economies of investment. This USSOCOM investment strategy is used to link technology opportunities with capability deficiencies, capability objective, technology thrust areas, and technology objectives. Technology development needs in these areas may be advertised to industry and government research and development agencies via agency announcements and calls for white papers.

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

	FY 2019	FY 2020	FY 2021
<p>Title: SOF Technology Development</p> <p>Description: This project conducts studies and develops laboratory prototypes for applied research and advanced technology developments, and leverages other organizations' technology projects that may not otherwise be affordable within MFP-11. Beginning in FY 2021, this project will continue to exploit and integrate emerging technologies for sensors and surveillance enabling systems. Increases focus on tactical sensors and enabling technologies in support of the Intelligence, Surveillance, and Reconnaissance (ISR) mission set focused leading edge technology, biometric and biotechnology, which is directed towards the development of revolutionary tags, taggants, sensors, communications, and data processing.</p> <p>FY 2020 Plans: Continue ongoing technology development projects in areas such as, but not limited to: enabling power technologies, signature reduction technologies, high data-rate throughput, and advances in lightweight armor and materials. Advance technologies for combat medical equipment, biotechnologies, tactics, human performance, optics, sensor, information sources, and processing improvements, improve human-machine interfaces and display, identify SOF specific machine learning/artificial intelligence, and secure communications. Continue pursuit of methods to reduce operator load and provide advanced protection. Develop technologies for improved and widened window of target engagement (escalation of force), pursue enhancements to technologies that can aid in detection of enemy intentions and status, and continue development and exploration of novel technologies across the electromagnetic spectrum. Based upon agreed technology maturity metrics, transfer successful projects into programs of record. Continue the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes.</p> <p>FY 2021 Plans:</p>	15.833	17.967	38.389

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Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 1160401BB / SOF Technology Development	Project (Number/Name) S100 / SOF Technology Development		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2019	FY 2020	FY 2021
<p>Continues ongoing technology development projects in areas such as, but not limited to: enabling power technologies, signature reduction technologies, high data-rate throughput, and advances in lightweight armor and materials. Advances technologies for combat medical equipment, biotechnologies, tactics, human performance, optics, sensor, information sources, and processing improvements, improves human-machine interfaces and displays, identifies SOF specific machine learning/artificial intelligence, and secure communications. Continues pursuit of methods to reduce operator load and provides advanced protection. Develops technologies for improved and widened window of target engagement (escalation of force), pursues enhancements to technologies that can aid in detection of enemy intentions and status, and continues development and exploration of novel technologies across the electromagnetic spectrum. Continues to exploit and integrate emerging technologies for sensors and surveillance enabling systems. Increases focus on tactical sensors and enabling technologies in support of the Intelligence, Surveillance, and Reconnaissance mission set. Based upon agreed technology maturity metrics, transfers successful projects into programs of record. Continues the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes.</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: Net Increase of \$20.422 million is due to an increase for the integration of SOF Tagging, Tracking, and Locating Technologies (TTL) Project (\$15.862 million) and increase for the integration of Artificial Intelligence (AI) and biotechnologies (\$4.560 million).</p>				
<p>Title: Tagging, Tracking, and Locating Technologies (TTL) Project</p> <p>Description: TTL funds Applied Research projects identified in the USSOCOM Quick Look Capabilities Based Assessments (QL-CBA). TTL applies Intelligence, Surveillance, and Reconnaissance (ISR) focused leading edge technology, biometric and biotechnology, which is directed towards the development of revolutionary tags, taggants, sensors, communications, and data processing in support of the TTL mission.</p> <p>FY 2020 Plans: Complete projects to exploit technology, biotechnology and chemistry for application to TTL and TTL-enabling systems. Complete projects linked to the USSOCOM/DoD TTL and ISR Roadmaps, which are updated via the Joint Chief of Staff (JCS)/J8-approved annual TTL QL-CBA.</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: Decrease of \$15.956 million is due to the transition to the SOF Special Technology Project.</p>		15.008	15.956	-
<p>Title: Classified Sub-Project</p> <p>Description: Classified Sub-Project (provided under separate cover).</p> <p>FY 2020 Plans:</p>		3.794	3.646	4.075

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2019	FY 2020	FY 2021
Details provided under separate cover.				
FY 2021 Plans: Details provided under separate cover.				
FY 2020 to FY 2021 Increase/Decrease Statement: Details provided under separate cover.				
Accomplishments/Planned Programs Subtotals		34.635	37.569	42.464
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				