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**Department of Defense  
Fiscal Year (FY) 2021 Budget Estimates**

February 2020



**Chemical and Biological Defense Program**

*Defense-Wide Justification Book Volume 1 of 2*

***Procurement, Defense-Wide***

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Chemical and Biological Defense Program • Budget Estimates FY 2021 • Procurement

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## Chemical and Biological Defense Program Overview

The Chemical and Biological Defense Program (CBDP) is vital to our Nation's ability to counter current and future threats posed by chemical and biological (CB) weapons. The hazards posed by CB weapons remain real and evolving. An increased willingness to use these types of weapons either for assassinations (e.g. Russia and North Korea) or to achieve asymmetric advantages (e.g. Syria and ISIS in Iraq) indicates eroding international norms against the use of CB weapons. This paradigm shift challenges the ability of the Joint Force to operate unencumbered. The proliferation of knowledge and technology, increased ease of access, difficulty in detecting illicit activities, emerging threats, improved delivery capabilities, and our limited ability to anticipate how adversaries might employ Weapons of Mass Destruction (WMD) heighten the risk of attacks against the U.S. or its allies.

The *2018 National Defense Strategy* (NDS) and Department of Defense (DoD) strategic guidance acknowledges an increasingly complex global security environment, characterized by the re-emergence of long-term, strategic competition between nations and the growing potential for strategic surprise stemming from advances in technology and science. The NDS recognizes the effects of WMD and prioritizes efforts to prevent WMD proliferation, defend the homeland from WMD, and manage the consequences of WMD attacks. We must remain vigilant in preparing and responding to threats from near-peer threat actors. Our adversaries' ambitions and increasing dominance in biotechnology, engineering, and computational science create challenges and opportunities for the Joint Force's battlefield superiority. Therefore, we must lean forward into the future to leverage innovation, integrate our collective CB knowledge, and deploy adaptive solutions to mitigate these enhanced and emerging threats.

Considering the international security environment and the objectives of the NDS, the vision for the CBDP is a Joint Force ready to fight and win in CB-contested environments through a coordinated and integrated effort that systematically neutralizes the chemical and biological threats presented by our adversaries. The CBDP will achieve this vision through its mission to enable the lethality of the Joint Force by anticipating future threats and delivering capabilities that ensure the Warfighter fights and wins in CB-contested environments. These capabilities are a part of an integrated and layered defensive capacity that enables countering weapons of mass destruction (CWMD) missions ranging from major combat operations to Defense Support to Civil Authorities (DSCA) domestic incident response. However, in Fiscal Year (FY) 2021, the program will no longer resource radiological passive defense and tactical disablement efforts to focus the CBDP on its core mission of CB defense. The FY 2021 President's Budget Request includes \$1.29 billion aligned against the highest CB defense priorities for the Department, Joint Services, and Combatant Commands to improve near-term Joint Force readiness and modernize the force to address emerging threats.

## **Budget Overview**

This FY 2021 budget request supports the NDS and the DoD Strategy for CWMD and will continue to develop capabilities to increase the resiliency of our warfighters and support efforts to deter, prevent, mitigate, respond to, and recover from CB incidents and hazards in the following areas:

- Prevent Surprise (NDS Pillar: Build a More Lethal Force) - Reduce the risk from emerging threats resulting from advances in technology and the increased proliferation of WMD and enablers. Efforts focus on accelerating characterization and early assessment of possible CB hazards by leveraging advances in technology and artificial intelligence.
- Situational Awareness (NDS Pillar: Build a More Lethal Force) – Improve tactical and operational commanders' decisions by developing and fielding better detection and identification capabilities to conduct CB reconnaissance, surveillance, and site exploitation missions. Developmental efforts focus on increasing detection accuracy, range and effectiveness, ensuring that detection data integrates seamlessly with other non-CB sensor systems and relevant information systems, and integration of sensors onto Service-fielded unmanned platforms.
- Protection (NDS Pillar: Build a More Lethal Force) - Enhance mission performance and provide effective protection against current and emerging threats by rapidly developing and fielding modernized protection capabilities. Developmental efforts focus on advances in materials and systems engineering to enhance protective properties against a broader array of hazards, while reducing CWMD operational challenges and logistical burdens. Approaches focus on modular and customizable solutions that are effective against a broad range of challenges in varied environments.
- Hazard Mitigation (NDS Pillar: Build a More Lethal Force) - Preserve combat power by developing and fielding systems that mitigate exposure to CB hazards and restore combat readiness of critical personnel and platforms. Developmental efforts address personnel decontamination, to include handling mass casualties and human remains, along with materiel decontamination, which includes sensitive equipment and aircraft. Novel decontamination approaches focus on broad decontaminant applicability to CB hazards, while minimizing harm to individuals, equipment, and platforms.
- Medical Countermeasures (NDS Pillar: Build a More Lethal Force) - Improve delivery of medical countermeasures to the warfighter by enhancing development through a platform-based approach to enable cost effective and agile delivery of prophylactic, diagnostic, and therapeutic capabilities for known and emerging threats. Developmental efforts focus on advanced vaccines, therapeutic drugs, and diagnostic capabilities that provide safe and effective medical defenses against biological agents (bacteria, toxins, and viruses), emerging infectious diseases, and traditional and non-traditional chemical agents.

## ***FY 2021 Budget Request Highlights***

- The FY 2021 Research, Development, Test and Evaluation (RDT&E) budget request of \$993.7 Million supports key efforts including:
  - \$294 Million supporting RDT&E efforts advancing environmental detection and medical diagnostic capabilities providing enhanced situational awareness of traditional and non-traditional chemical hazards, as well as traditional and emerging biological hazards.
  - \$156 Million to continue support of research and development of Medical Countermeasures (MCMs), such as vaccines and therapeutics, addressing high-priority biological hazards.
  - \$103 Million to continue support of research and development of MCMs focused on protecting against and treating exposure to traditional and non-traditional chemical agents.
  - \$99 Million to support critical CB defense research, development, and test infrastructure and operations.
  - \$78 Million supporting RDT&E for personnel protection, respiratory and ocular protection, collective protection, and hazard mitigation capabilities against traditional and non-traditional CB agents.
  - \$81 Million supporting MCM platform and manufacturing technologies to streamline and accelerate product delivery and reduce developmental risk. Efforts center on leveraging and sustaining the DoD's Advanced Development and Manufacturing capability. Additionally, it resources efforts to improve domestic incident preparedness and response to a CB incident.
  - \$81 Million supporting basic research and threat agent sciences, advancing fundamental knowledge and experimental research in the life and physical sciences.
  - \$51 Million supporting integrated early warning, biosurveillance, warning & reporting, decision support, and modeling and simulation capabilities.
  - \$20 Million supporting concepts development, technology demonstrations, enhanced capability demonstrations, and Special Operations Forces Rapid Capability Development and Deployment to enhance military operational capabilities with technologies and equipment.

- The FY 2021 Procurement budget request of \$297.1 Million supports key efforts including:
  - \$95 Million to procure modernized respiratory and ocular protection for ground and air forces.
  - \$65 Million to procure modernized Analytical Laboratory Systems to enhance and sustain the National Guard – WMD Civil Support Teams analytical capabilities for DSCA. Funding also supports procurement of the Common Analytical Laboratory System capability to integrate a common suite of commercial- and government-off-the-shelf components to provide a common, modular, and transportable/mobile analytical laboratory system to support DoD field analytic units.
  - \$47 Million to procure CBRN Dismounted Reconnaissance Sets, Kits, and Outfits which allows warfighters to perform CBRN dismounted reconnaissance, surveillance, and site assessment of WMD suspect areas not accessible by traditional CBRN reconnaissance-mounted platforms.
  - \$23 Million to procure modernized collective protection capabilities (Joint Expeditionary Collective Protection, and CB Aircraft Survivability Barrier).
  - \$21 Million to procure Enhanced Maritime Biological Detectors to provide the U.S. Navy improved detection and identification capabilities with decreased operational costs and increased reliability for detection of biological agents.
  - \$5 Million to procure improved air crew ensembles to increase protection against advanced chemical threats and decrease physiological burden.

### ***Summary***

The proliferation of WMD continues to fall among the greatest challenges facing the United States of America, and the Nation must prioritize improving our ability to counter WMD. Currently, eroding international norms regarding CB weapons use, knowledge proliferation in the areas of advanced biotechnology and unmanned systems, and a diminishing distinction between chemical and biological capabilities all fuel the current CB threat environment. The DoD must remain at the leading edge of innovation and develop technologies to address present and future threats. Accordingly, this budget enables the CBDP to increase the lethality of the Joint Force by ensuring that they can fight and win in CB-contested environments, preserving the security and freedom of our Nation.

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Defense-Wide  
FY 2021 President's Budget  
Exhibit P-1 FY 2021 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

16 Jan 2020

Appropriation	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted
Procurement, Defense-Wide	311,437	342,206		
Total Defense-Wide	311,437	342,206		

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Defense-Wide  
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Total Obligational Authority  
(Dollars in Thousands)

16 Jan 2020

Appropriation	FY 2020 Total Enacted (Base+Emerg+ OCO)	FY 2021 Base	FY 2021 OCO for Base Requirements	FY 2021 OCO for Direct War and Enduring Costs
Procurement, Defense-Wide	342,206	297,094		
Total Defense-Wide	342,206	297,094		

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16 Jan 2020

Appropriation

	FY 2021 Total OCO	FY 2021 Total (Base + OCO)
Procurement, Defense-Wide		297,094
Total Defense-Wide		297,094

## UNCLASSIFIED

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Total Obligational Authority  
(Dollars in Thousands)

16 Jan 2020

Organization: Procurement, Defense-Wide	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted
Chemical and Biological Defense Program, CBDP	311,437	342,206		
Total	311,437	342,206		

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16 Jan 2020

Organization: Procurement, Defense-Wide	FY 2020 Total Enacted (Base+Emerg+ OCO)	FY 2021 Base	FY 2021 OCO for Base Requirements	FY 2021 OCO for Direct War and Enduring Costs
Chemical and Biological Defense Program, CBDP	342,206	297,094		
Total	342,206	297,094		

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Organization: Procurement, Defense-Wide

	FY 2021 Total OCO	FY 2021 Total (Base + OCO)
Chemical and Biological Defense Program, CBDP		297,094
Total		297,094

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(Dollars in Thousands)

16 Jan 2020

Appropriation: Procurement, Defense-Wide

Budget Activity	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted
03. Chemical/Biological Defense	311,437	342,206		
Total Procurement, Defense-Wide	311,437	342,206		

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Defense-Wide  
 FY 2021 President's Budget  
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16 Jan 2020

Appropriation: Procurement, Defense-Wide

Budget Activity	FY 2020 Total Enacted (Base+Emerg+ OCO)	FY 2021 Base	FY 2021 OCO for Base Requirements	FY 2021 OCO for Direct War and Enduring Costs
03. Chemical/Biological Defense	342,206	297,094		
Total Procurement, Defense-Wide	342,206	297,094		

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FY 2021 President's Budget  
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(Dollars in Thousands)

16 Jan 2020

Appropriation: Procurement, Defense-Wide

Budget Activity	FY 2021 Total OCO	FY 2021 Total (Base + OCO)
-----	-----	-----
03. Chemical/Biological Defense		297,094
Total Procurement, Defense-Wide		297,094

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Defense-Wide  
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 Total Obligational Authority  
 (Dollars in Thousands)

16 Jan 2020

Appropriation: 0300D Procurement, Defense-Wide

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 Emergency		FY 2020 OCO Enacted		S
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	e
<b>Budget Activity 03: Chemical/Biological Defense</b>											c
											-
CBDP											
81	Chemical Biological Situational Awareness	A	168,918		160,288						U
82	CB Protection & Hazard Mitigation	A	142,519		181,918						U
<b>Total Chemical/Biological Defense</b>											
			311,437		342,206						
<b>Total Procurement, Defense-Wide</b>											
			311,437		342,206						

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 Total Obligational Authority  
 (Dollars in Thousands)

16 Jan 2020

Appropriation: 0300D Procurement, Defense-Wide

Line No	Item Nomenclature	FY 2020				FY 2021				FY 2021	
		Total Enacted (Base+Emerg+ OCO)		FY 2021 Base		OCO for Base Requirements		OCO for Direct War and Enduring Costs		S	e
		Ident Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	c
<b>Budget Activity 03: Chemical/Biological Defense</b>											
<b>CBDP</b>											
81	Chemical Biological Situational Awareness	A	160,288		147,150					U	
82	CB Protection & Hazard Mitigation	A	181,918		149,944					U	
<b>Total Chemical/Biological Defense</b>											
			342,206		297,094						
<b>Total Procurement, Defense-Wide</b>											
			342,206		297,094						

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16 Jan 2020

Appropriation: 0300D Procurement, Defense-Wide

Line No	Item Nomenclature	Ident Code	FY 2021		FY 2021		S e c
			Total OCO	Quantity	Total (Base + OCO)	Cost	
-----	-----	-----	-----	-----	-----	-----	

Budget Activity 03: Chemical/Biological Defense

CBDP

81 Chemical Biological Situational Awareness	A	147,150	U
82 CB Protection & Hazard Mitigation	A	149,944	U
Total Chemical/Biological Defense	-----	297,094	-----
Total Procurement, Defense-Wide	-----	297,094	-----

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***Appropriation 0300D: Procurement, Defense-Wide***

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Line #	BA	BSA	Line Item Number	Line Item Title	Page
81	03	01	7001SA1000	Chemical Biological Situational Awareness.....	Volume 1 - 1
82	03	01	8001PH1000	CB Protection & Hazard Mitigation.....	Volume 1 - 83

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**Line Item Table of Contents (Alphabetically by Line Item Title)**

<b>Line Item Title</b>	<b>Line Item Number</b>	<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Page</b>
CB Protection & Hazard Mitigation	8001PH1000	82	03	01.....	Volume 1 - 83
Chemical Biological Situational Awareness	7001SA1000	81	03	01.....	Volume 1 - 1

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2021 Chemical and Biological Defense Program										<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D: Procurement, Defense-Wide / BA 03: Chemical/Biological Defense / BSA 1: CBDP					<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):			<b>Program Elements for Code B Items:</b> N/A					<b>Other Related Program Elements:</b> N/A							
<b>Line Item MDAP/MAIS Code:</b> N/A															
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>To Complete</b>	<b>Total</b>			
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-			
Gross/Weapon System Cost (\$ in Millions)	259.895	168.918	160.288	147.150	-	147.150	235.163	332.905	348.084	350.442	0.000	2,002.845			
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
Net Procurement (P-1) (\$ in Millions)	259.895	168.918	160.288	147.150	-	147.150	235.163	332.905	348.084	350.442	0.000	2,002.845			
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
<b>Total Obligation Authority (\$ in Millions)</b>	<b>259.895</b>	<b>168.918</b>	<b>160.288</b>	<b>147.150</b>	<b>-</b>	<b>147.150</b>	<b>235.163</b>	<b>332.905</b>	<b>348.084</b>	<b>350.442</b>	<b>0.000</b>	<b>2,002.845</b>			
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>															
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-			
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-			

**Description:**

Enable the warfighter to deter, prevent, protect against, mitigate, respond to, and recover from Chemical, Biological, Radiological, and Nuclear (CBRN) threats and effects as part of an integrated and layered defense. Situational awareness provides the Joint Force the ability to proactively identify hazards from traditional and emerging CBRN threats with a focus on improving the timeliness and confidence of information for decision makers.

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Exhibit P-40, Budget Line Item Justification: PB 2021 Chemical and Biological Defense Program							Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity:				P-1 Line Item Number / Title:					
0300D: Procurement, Defense-Wide / BA 03: Chemical/Biological Defense / BSA 1: CBDP				7001SA1000 / Chemical Biological Situational Awareness					
ID Code (A=Service Ready, B=Not Service Ready):			Program Elements for Code B Items: N/A				Other Related Program Elements: N/A		
Line Item MDAP/MAIS Code: N/A									
Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	G47101 / JOINT WARNING & REPORTING NETWORK (JWARN)		A		- / 4.694	- / 0.502	- / 0.442	- / 0.000	- / -
P-5	JC0208 / JOINT EFFECTS MODEL (JEM)		A		- / 3.905	- / 0.911	- / 0.689	- / 0.000	- / -
P-5	JF0100 / JOINT CHEMICAL AGENT DETECTOR (JCAD)	P-5a	A		- / 12.023	- / 1.698	- / 2.246	- / 0.000	- / -
P-5	SA0042 / JOINT CHEM AGENT DETECTOR SOLID LIQUID ADAPTORS (JCAD SLA)	P-5a	A		- / 0.000	- / 0.000	- / 0.000	- / 6.799	- / -
P-5	JF0108 / JOINT HANDHELD BIO-AGENT IDENTIFIER (JHBI)	P-5a	B		- / 1.520	- / 0.942	- / 1.070	- / 0.000	- / -
P-5	JM8788 / NEXT GENERATION DIAGNOSTICS SYSTEM (NGDS)	P-5a	A		- / 11.566	- / 6.563	- / 4.905	- / 0.970	- / -
P-5	SA0044 / NEXT GEN DIAG 2 MAN PORTABLE DIAGNOSTIC SYSTEM (NGDS 2 MPDS)	P-5a	B		- / 0.000	- / 0.000	- / 0.000	- / 0.455	- / -
P-5	JS0005 / COMMON ANALYTICAL LABORATORY SYSTEM (CALS)	P-5a, P-21	B		- / 37.064	- / 48.317	- / 4.293	- / 37.173	- / -
P-5	SA0025 / ANALYTICAL LABORATORY SYSTEM MODIFICATION (ALS MOD)	P-5a, P-21	B		- / 0.000	- / 0.000	- / 55.158	- / 27.335	- / -
P-5	JS0007 / SPU CBE CHEMICAL BIOLOGICAL INCIDENT RESPONSE FORCE (SPU CBE CBIRF)	P-5a	A		- / 3.623	- / 1.384	- / 1.089	- / 1.083	- / -
P-5	JS0008 / SPU CBE CBRN RESPONSE ENTERPRISE (SPU CBE CRE)	P-5a	A		- / 11.907	- / 2.400	- / 0.000	- / 0.000	- / -
P-5	JS5230 / SOFTWARE SUPPORT ACTIVITY (SSA)		B		- / 0.314	- / 0.094	- / 0.081	- / 0.074	- / -
P-5	JX0210 / DEFENSE BIOLOGICAL PRODUCTS ASSURANCE PROGRAM (DBPAP)		A		- / 1.985	- / 0.975	- / 2.961	- / 2.845	- / -
P-5	JX0301 / BIOSURVEILLANCE PORTAL (BSP)		A		- / 2.327	- / 1.148	- / 1.124	- / 0.000	- / -
P-5	MC0100 / JOINT NBC RECONNAISSANCE SYSTEM (JNBCRS)		A		- / 7.918	- / 0.000	- / 0.300	- / 0.000	- / -
P-5	MC0101 / CBRN DISMOUNTED RECONNAISSANCE SYSTEMS (CBRN DRS)	P-5a, P-21	A		- / 160.086	- / 98.231	- / 58.020	- / 47.393	- / -
P-5	SA0003 / ENHANCED MARITIME BIOLOGICAL DETECTION (EMBD)	P-5a, P-21	B		- / 0.000	- / 0.000	- / 15.243	- / 20.762	- / -
P-5	SA0005 / CBRN SENSOR INTEGRATION ON ROBOTIC PLATFORMS (CSIRP)	P-5a	B		- / 0.000	- / 0.000	- / 1.747	- / 0.503	- / -
P-5	SA0006 / CBRN INFORMATION SYSTEMS (CBRN IS)		B		- / 0.963	- / 0.753	- / 0.276	- / 0.512	- / -
P-5	SA0009 / MOUNTED MANNED PLATFORM RADIOLOGICAL DETECTION SYSTEM (MMPRDS)	P-5a	A		- / 0.000	- / 0.000	- / 1.622	- / 0.000	- / -
P-5	SA0046 / MOUNTED ENHANCED RADAC LONG RANGE IMAGING NETWORKABLE (MERLIN)	P-5a	B		- / 0.000	- / 0.000	- / 0.000	- / 1.246	- / -
P-5	SA0011 / RADIOLOGICAL DETECTION SYSTEM (RDS)	P-5a	A		- / 0.000	- / 0.000	- / 4.065	- / 0.000	- / -
P-5	SA0012 / JOINT PERSONNEL DOSIMETER-INDIVIDUAL (JPD-I)	P-5a	A		- / 0.000	- / 5.000	- / 4.957	- / 0.000	- / -
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 259.895</b>	<b>- / 168.918</b>	<b>- / 160.288</b>	<b>- / 147.150</b>	<b>- / -</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D: Procurement, Defense-Wide / BA 03: Chemical/Biological Defense / BSA 1: CBDP		<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		
<b>Justification:</b> Situational Awareness is a primary objective of the Chemical Biological Defense Program. Operational forces have an immediate need to safely operate, survive, and sustain operations in a Nuclear, Biological, Chemical (NBC) agent threat environment. Contamination Avoidance is necessary to maintain operational efficiency and minimize the need to decontaminate vehicles, equipment, and areas. Advanced nuclear, biological, and chemical defensive equipment is required to enhance US capability to detect and identify threat agents in the battle space and the homeland. Warning, reporting, and reconnaissance efforts will provide a tiered strategy for detection and warning comprised of complementary detection/identification systems to provide theater protection against a large area and point attacks. Additionally, efforts in this BLIN support Special Purpose Unit operations and the National Guard Bureau Weapons of Mass Destruction Civil Support Teams (WMD-CSTs).		
The Chemical Biological Defense Program FY 2021 funding request was reduced by \$4.705 million during the Defense-Wide Review (DWR) to account for programs being terminated or restructured.		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness									<b>Item Number / Title [DODIC]:</b> G47101 / JOINT WARNING & REPORTING NETWORK (JWARN)						
ID Code (A=Service Ready, B=Not Service Ready) : A													MDAP/MAIS Code:						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							4.694		0.502		0.442		0.000		-		0.000		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							4.694		0.502		0.442		0.000		-		0.000		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							<b>4.694</b>		<b>0.502</b>		<b>0.442</b>		<b>0.000</b>		<b>-</b>		<b>0.000</b>		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	
Package Fielding Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	4.694	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
JWARN 2 - System Fielding Support (TPF, FDT, NET)	-	-	0.000	-	-	0.502	-	-	0.442	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Recurring Cost</i>	-	-	<b>4.694</b>	-	-	<b>0.502</b>	-	-	<b>0.442</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>	
<i>Subtotal: Package Fielding Cost</i>	-	-	<b>4.694</b>	-	-	<b>0.502</b>	-	-	<b>0.442</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>	
Gross/Weapon System Cost	-	-	<b>4.694</b>	-	-	<b>0.502</b>	-	-	<b>0.442</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>	
<b>Remarks:</b>																			
The Joint Warning and Reporting Network (JWARN) provides the Joint Forces with a comprehensive Early Warning (EW) analysis and response capability to minimize the effects of hostile Chemical, Biological, Radiological, and Nuclear (CBRN) attacks, incidents and accidents. It provides the operational capability to employ CBRN warning technology which will collect, analyze, identify, locate, report, and disseminate CBRN warnings. JWARN will transition from a Command and Control (C2) platform specific implementation to a Web-based Service Oriented Architecture (SOA) meeting the DoD's evolution to a more comprehensive Common Operating Environment (COE). JWARN 2 will provide an expansion of sensors that will connect to JWARN, increased automation of message handling, improved false alarm filtering, integration of route-planning calculator, and interoperability with additional Command and Control (C2), medical information and evolving Bio-Surveillance systems. JWARN will be located in Command and Control Centers at the appropriate level and will be employed by CBRN defense specialists and other designated personnel to improve the efficiency of limited CBRN personnel assets. This employment will transfer data automatically from existing sensors and to and from the future sensors to provide commanders with the capability to support operational decision making in a CBRN environment. JWARN will integrate existing sensors into a sensor network or host C2 system, but will not provide the sensors that will be employed in the operating environment. JWARN will prioritize and complete resourced Capability Drops to transition into sustainment.																			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> G47101 / JOINT WARNING & REPORTING NETWORK (JWARN)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
Defense-Wide Review (DWR): The Chemical Biological Defense Program (CBDP) FY 2021 funding request was reduced by \$0.393 million to account for program being terminated.		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020																																																																																																																																											
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> JC0208 / JOINT EFFECTS MODEL (JEM)																																																																																																																																											
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>																																																																																																																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Resource Summary</th> <th colspan="3">Prior Years</th> <th colspan="3">FY 2019</th> <th colspan="3">FY 2020</th> <th colspan="3">FY 2021 Base</th> <th colspan="3">FY 2021 OCO</th> <th colspan="3">FY 2021 Total</th> </tr> </thead> <tbody> <tr> <td>Procurement Quantity (<i>Units in Each</i>)</td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td>-</td></tr> <tr> <td>Gross/Weapon System Cost (\$ in Millions)</td><td></td><td></td><td></td><td></td><td>3.905</td><td></td><td></td><td>0.911</td><td></td><td></td><td>0.689</td><td></td><td></td><td>0.000</td><td></td><td></td><td>-</td><td>0.000</td></tr> <tr> <td>Less PY Advance Procurement (\$ in Millions)</td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td>-</td><td>-</td><td>-</td></tr> <tr> <td>Net Procurement (P-1) (\$ in Millions)</td><td></td><td></td><td></td><td></td><td>3.905</td><td></td><td></td><td>0.911</td><td></td><td></td><td>0.689</td><td></td><td></td><td>0.000</td><td></td><td></td><td>-</td><td>0.000</td></tr> <tr> <td>Plus CY Advance Procurement (\$ in Millions)</td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td>-</td><td>-</td><td>-</td></tr> <tr> <td><b>Total Obligation Authority</b> (\$ in Millions)</td><td></td><td></td><td></td><td></td><td><b>3.905</b></td><td></td><td></td><td><b>0.911</b></td><td></td><td></td><td><b>0.689</b></td><td></td><td></td><td><b>0.000</b></td><td></td><td></td><td>-</td><td><b>0.000</b></td></tr> </tbody> </table>													Resource Summary			Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total			Procurement Quantity ( <i>Units in Each</i> )				-			-			-			-			-		-	Gross/Weapon System Cost (\$ in Millions)					3.905			0.911			0.689			0.000			-	0.000	Less PY Advance Procurement (\$ in Millions)					-			-			-			-		-	-	-	Net Procurement (P-1) (\$ in Millions)					3.905			0.911			0.689			0.000			-	0.000	Plus CY Advance Procurement (\$ in Millions)					-			-			-			-		-	-	-	<b>Total Obligation Authority</b> (\$ in Millions)					<b>3.905</b>			<b>0.911</b>			<b>0.689</b>			<b>0.000</b>			-	<b>0.000</b>					
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Software Cost																																																																																																																																																								
Recurring Cost																																																																																																																																																								
Prior/Future combined efforts	-	-	3.905	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																						
JEM 2 - Software & Installation	-	-	0.000	-	-	0.160	-	-	0.121	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																						
<i>Subtotal: Recurring Cost</i>	-	-	<b>3.905</b>	-	-	<b>0.160</b>	-	-	<b>0.121</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>																																																																																																																																						
<i>Subtotal: Software Cost</i>	-	-	<b>3.905</b>	-	-	<b>0.160</b>	-	-	<b>0.121</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>																																																																																																																																						
Package Fielding Cost																																																																																																																																																								
Recurring Cost																																																																																																																																																								
JEM 2 - System Fielding Support (TFP, FDT, NET)	-	-	0.000	-	-	0.557	-	-	0.422	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																						
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.557</b>	-	-	<b>0.422</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>																																																																																																																																						
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Support Cost																																																																																																																																																								
JEM 2 - Technical & Engineering Support	-	-	0.000	-	-	0.194	-	-	0.146	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																						
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.194</b>	-	-	<b>0.146</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>																																																																																																																																						
<b>Gross/Weapon System Cost</b>	-	-	<b>3.905</b>	-	-	<b>0.911</b>	-	-	<b>0.689</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>																																																																																																																																						

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> JC0208 / JOINT EFFECTS MODEL (JEM)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<b>Remarks:</b> The Joint Effects Model 2 (JEM 2) is DoD's only operationally tested and accredited model for predicting hazards associated with the release of contaminants into the environment. JEM 2 is a web-based software program. It is the only accredited DoD computer-based tactical and operational hazard prediction model capable of providing common representation of chemical, biological, radiological, nuclear (CBRN) and toxic industrial chemicals/toxic industrial material hazard areas and effects. It may be used in two variants: as a standalone system, or as a resident application on host command, control, communications, computers, and intelligence systems. JEM 2 is capable of modeling hazards in a variety of scenarios including: counter-force, passive defense, accident and/or incidents, high altitude releases, urban NBC environments, building interiors, and human performance degradation. Battle space commanders and first responders must have a CBRN hazard prediction capability in order to make decisions that will minimize risks of CBRN contamination and enable them to continue mission operations. JEM 2 operates in an integrated fashion with operational and tactical Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems, and in a standalone mode. JEM 2 interfaces and communicates with the other programs such as Joint Warning and Reporting Network (JWARN), weather systems, intelligence systems, and various databases. JEM will prioritize and complete resourced Capability Drops to transition into sustainment.		
Defense-Wide Review (DWR): The Chemical Biological Defense Program (CBDP) FY 2021 funding request was reduced by \$0.718 million to account for program being terminated.		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness									<b>Item Number / Title [DODIC]:</b> JF0100 / JOINT CHEMICAL AGENT DETECTOR (JCAD)						
ID Code (A=Service Ready, B=Not Service Ready) : A													MDAP/MAIS Code:						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							12.023		1.698		2.246		0.000		-		0.000		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							12.023		1.698		2.246		0.000		-		0.000		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							<b>12.023</b>		<b>1.698</b>		<b>2.246</b>		<b>0.000</b>		<b>-</b>		<b>0.000</b>		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	
Hardware Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	12.023	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
M4A1 JCAD - HARDWARE - M4A1 JCAD <sup>(†)</sup>	-	-	0.000	8.460	50	0.423	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
M4A1 JCAD Communication Adaptor <sup>(†)</sup>	-	-	0.000	4.844	250	1.211	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
JCAD SLA KIT - JCAD SLA - Hardware <sup>(†)</sup>	-	-	0.000	-	-	0.000	5.847	275	1.608	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Recurring Cost</i>	-	-	<b>12.023</b>	-	-	<b>1.634</b>	-	-	<b>1.608</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>	
<i>Subtotal: Hardware Cost</i>	-	-	<b>12.023</b>	-	-	<b>1.634</b>	-	-	<b>1.608</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>	
Support Cost																			
Engineering Support (Govt)	-	-	0.000	-	-	0.000	-	-	0.453	-	-	0.000	-	-	-	-	-	0.000	
System Fielding Support (Govt)	-	-	0.000	-	-	0.064	-	-	0.185	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.064</b>	-	-	<b>0.638</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>	
Gross/Weapon System Cost	-	-	12.023	-	-	1.698	-	-	2.246	-	-	0.000	-	-	-	-	-	0.000	

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> JF0100 / JOINT CHEMICAL AGENT DETECTOR (JCAD)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<b>Remarks:</b> The Joint Chemical Agent Detector (JCAD) program employed an incremental acquisition strategy to develop a miniaturized, rugged point chemical agent detector that automatically and simultaneously detects, identifies and alerts in the presence of nerve, blister, and blood chemical warfare agents. In FY19, JCADs and Communication Adaptor Kits were purchased for Joint Urgent Operational Needs (JUONS) 0557. FY20 JCAD Procurement will procure JCAD Solid Liquid Adapters (JCAD SLA) for production verification testing and initial fielding for United States Special Operations Command (USSOCOM) and Joint Services. The contract award is planned for April 2020. In FY21, JCAD transitions to JCAD-SLA. The JCAD SLA effort was a NGCD acceleration effort for USSOCOM and a chemical warfare - pharmaceutical agent development effort initially funded by the FY17 Congressional Add.		
Note: Coordinating Fulfillment of JCAD requirements for Platform/Kit Integration via Other Service Funding or through PM Owned Stock Release.		
(†) indicates the presence of a P-5a		

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness					<b>Item Number / Title [DODIC]:</b> JF0100 / JOINT CHEMICAL AGENT DETECTOR (JCAD)					
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>		<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$ K)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
M4A1 JCAD - HARDWARE - M4A1 JCAD		2019	Smiths Detection / Edgewood, MD		SS / FFP	RDECOM, APG, MD	Dec 2018 <sup>(1)</sup>	Jul 2019	50	8.460	Y		
M4A1 JCAD Communication Adaptor		2019	Smiths Detection / Edgewood, MD		SS / FPIF	RDECOM, APG, MD	Jul 2019	Aug 2020	250	4.844	Y		
JCAD SLA KIT - JCAD SLA - Hardware		2020	Smiths Detection / Edgewood, MD		SS / FFP	RDECOM, APG, MD	Apr 2020	Sep 2020	275	5.847	Y		

Footnotes:

(1) (Option)

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020								
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> SA0042 / JOINT CHEM AGENT DETECTOR SOLID LIQUID ADAPTORS (JCAD SLA)								
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>								
<b>Resource Summary</b>				<b>Prior Years</b>		<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>							
Procurement Quantity ( <i>Units in Each</i> )				-		-		-		-		-		-							
Gross/Weapon System Cost (\$ in Millions)				0.000		0.000		0.000		6.799		-		6.799							
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-							
Net Procurement (P-1) (\$ in Millions)				0.000		0.000		0.000		6.799		-		6.799							
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-							
<b>Total Obligation Authority</b> (\$ in Millions)				0.000		0.000		0.000		6.799		-		6.799							
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares (\$ in Millions)				-		-		-		-		-		-		-					
Gross/Weapon System Unit Cost (\$ in Thousands)				-		-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)			
Hardware Cost																					
Recurring Cost																					
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
JCAD SLA - JCAD-SLA Hardware Procurement <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	5.070	499	2.530	-	-	-	5.070	499	2.530			
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	2.530	-	-	-	-	-	2.530			
<i>Subtotal: Hardware Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	2.530	-	-	-	-	-	2.530			
Support Cost																					
JCAD-SLA Contractor Labor	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.705	-	-	-	-	-	0.705			
System Fielding Support (Gov't)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.883	-	-	-	-	-	1.883			
Program Management Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.886	-	-	-	-	-	0.886			
Engineering Support (Gov't)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.795	-	-	-	-	-	0.795			
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	4.269	-	-	-	-	-	4.269			
<b>Gross/Weapon System Cost</b>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	6.799	-	-	-	-	-	6.799			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> SA0042 / JOINT CHEM AGENT DETECTOR SOLID LIQUID ADAPTORS (JCAD SLA)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<b>Remarks:</b> The Joint Chemical Agent Detector (JCAD) program employed an incremental acquisition strategy to develop a miniaturized, rugged point chemical agent detector that automatically and simultaneously detects, identifies and alerts in the presence of nerve, blister, and blood chemical warfare agents. Production of the M4A1 began April FY11. The JCAD Solid Liquid Adapter (SLA) interfaces with the fielded M4A1 JCAD to allow for solid liquid sampling off surfaces. The SLA kit provides an interim point solution to detect Non-traditional agents (NTAs) and Pharmaceutical Based Agents (PBAs) off surfaces. In FY21, JCAD SLA is captured separately from the primary JCAD line.		
Justification: FY21 funding procures 499 JCAD SLAs, an additional Authorized List (AAL) item to the M4A1 JCAD.		
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program									Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness					Item Number / Title [DODIC]: SA0042 / JOINT CHEM AGENT DETECTOR SOLID LIQUID ADAPTORS (JCAD SLA)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
JCAD SLA - JCAD-SLA Hardware Procurement		2021	Smiths Detection / Edgewood, MD	SS / CPIF	Unknown	Feb 2021	Aug 2021	499	5.070	Y		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020									
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness									<b>Item Number / Title [DODIC]:</b> JF0108 / JOINT HANDHELD BIO-AGENT IDENTIFIER (JHBI)									
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B												<b>MDAP/MAIS Code:</b>									
<b>Resource Summary</b>			<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>							
Procurement Quantity ( <i>Units in Each</i> )						-		-		-		-		-							
Gross/Weapon System Cost (\$ in Millions)						1.520		0.942		1.070		0.000		-		0.000					
Less PY Advance Procurement (\$ in Millions)						-		-		-		-		-		-					
Net Procurement (P-1) (\$ in Millions)						1.520		0.942		1.070		0.000		-		0.000					
Plus CY Advance Procurement (\$ in Millions)						-		-		-		-		-		-					
<b>Total Obligation Authority</b> (\$ in Millions)						<b>1.520</b>		<b>0.942</b>		<b>1.070</b>		<b>0.000</b>		<b>-</b>		<b>0.000</b>					
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares (\$ in Millions)						-		-		-		-		-		-					
Gross/Weapon System Unit Cost (\$ in Thousands)						-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)			
Hardware Cost																					
Recurring Cost																					
Prior/Future combined efforts	-	-	1.520	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
JHBI - Hardware - three9 (devices) <sup>(†)</sup>	-	-	0.000	-	-	0.000	10.000	60	0.600	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Recurring Cost</i>	-	-	<i>1.520</i>	-	-	<i>0.000</i>	-	-	<i>0.600</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
Non Recurring Cost																					
JHBI - Hardware - Gendrive (devices) <sup>(†)</sup>	-	-	0.000	5.259	54	0.284	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
JHBI - Hardware - Auxiliary hardware/ Support Equipment	-	-	0.000	-	-	0.260	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.544</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
<i>Subtotal: Hardware Cost</i>	-	-	<i>1.520</i>	-	-	<i>0.544</i>	-	-	<i>0.600</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
Package Fielding Cost																					
Recurring Cost																					
JHBI - Assays - three9 <sup>(†)</sup>	-	-	0.000	0.077	220	0.017	0.400	640	0.256	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.017</i>	-	-	<i>0.256</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
Non Recurring Cost																					

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness									<b>Item Number / Title [DODIC]:</b> JF0108 / JOINT HANDHELD BIO-AGENT IDENTIFIER (JHBI)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				MDAP/MAIS Code:														
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>		
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
JHBI -Assays-Genedrive <sup>(†)</sup>	-	-	0.000	0.100	700	0.070	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Non Recurring Cost</i>	-	-	0.000	-	-	0.070	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Package Fielding Cost</i>	-	-	0.000	-	-	0.087	-	-	0.256	-	-	0.000	-	-	-	-	-	0.000
Support Cost																		
Program Management Support	-	-	0.000	-	-	0.124	-	-	0.214	-	-	0.000	-	-	-	-	-	0.000
JHBI Support Costs	-	-	0.000	-	-	0.187	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.311	-	-	0.214	-	-	0.000	-	-	-	-	-	0.000
Gross/Weapon System Cost	-	-	1.520	-	-	0.942	-	-	1.070	-	-	0.000	-	-	-	-	-	0.000

**Remarks:**

The Joint Handheld Bio-Agent Identifier (JHBI) program is a Joint Service Acquisition Category (ACAT) III program that addresses an existing United States Special Operations Command (SOCOM) requirement for handheld, multiplexed, environmental, bio-agent identification. The JHBI program will provide handheld bio-collection preparation, and identification systems for the rapid and accurate identification of organisms at the point of contact for multiple mission types. Biomeme developed the "two3" system for Increment 1 and is improving that system to become the "three9" system for Increment 2. Both are highly multiplexed, smart phone-based, Polymerase Chain Reaction (PCR) identification systems. Epistem is developing the "Genedrive", a 9-plex PCR system. The proposed JHBI systems will be handheld, PCR-based, multiplexed devices for the analysis of powder or liquid environmental biological samples and will be supported by tools for quickly collecting and preparing raw biological samples for use on these identifiers. JHBI capabilities will provide Special Operations Forces with timely and accurate identification of eight or more bio-agents at the point of need. Additional capabilities will be developed to meet time-phases or objective requirements. These capabilities may include additional chemical, biological, radiological, and nuclear (CBRN) threat assays, integrated sample preparation capabilities, and supporting capabilities, as required. JHBI Increment 1 is anticipated to serve as a supplemental capability to the man-portable, multiplex, Polymerase Chain Reaction Bio-identifier known as BioFire RAZOR, with Increment 2 fielding the complete replacement of the RAZOR by FY20.

Justification: There is no FY21 PB Request.

RDT&E Code B Item: 0604384BP/Proj CA5

CA5/JHBI: RDT&E FY2018 and Prior - 1.948Million; FY2019 - 1.632 Million

**DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES**

JHBI - three9 System MS C: Jun 2020

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> JF0108 / JOINT HANDHELD BIO-AGENT IDENTIFIER (JHBI)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B JHBI - three9 System Full Operational Capability: Sep 2020		<b>MDAP/MAIS Code:</b>
P5: Cost increase for three9 assays across the fiscal years is based on consolidation of multiple assays together so that each unit is a greater capability thus costing more per unit.		
(†) indicates the presence of a P-5a		

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness					<b>Item Number / Title [DODIC]:</b> JF0108 / JOINT HANDHELD BIO-AGENT IDENTIFIER (JHBI)					
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>		<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$ K)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
JHBI - Hardware - three9 (devices)		2020	Biomeme / Philadelphia, PA		SS / FFP	RDECOM, Natick, MA	May 2020	Aug 2020	60	10.000	Y		
JHBI - Hardware - Genedrive (devices)		2019	Biomeme / Philadelphia, PA		SS / FFP	RDECOM, Natick, MA	Oct 2019	Jan 2020	54	5.259	Y		
JHBI - Assays - three9		2019	Biomeme / Philadelphia, PA		SS / FFP	RDECOM, Natick, MA	Aug 2019	Nov 2019	220	0.077	Y		
JHBI - Assays - three9		2020	Biomeme / Philadelphia, PA		SS / FFP	RDECOM, Natick, MA	Aug 2020	Nov 2020	640	0.400	Y		
JHBI -Assays- Genedrive		2019	EPISTEM - 48 GRAFTON STREET / MANCHESTER, UK		SS / FFP	RDECOM, Natick, MA	Aug 2019	Nov 2019	700	0.100	Y		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020								
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> JM8788 / NEXT GENERATION DIAGNOSTICS SYSTEM (NGDS)								
ID Code (A=Service Ready, B=Not Service Ready) : A													MDAP/MAIS Code:								
<b>Resource Summary</b>			<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>							
Procurement Quantity ( <i>Units in Each</i> )			-			-		-		-		-		-							
Gross/Weapon System Cost (\$ in Millions)			11.566			6.563		4.905		0.970		-		0.970							
Less PY Advance Procurement (\$ in Millions)			-			-		-		-		-		-							
Net Procurement (P-1) (\$ in Millions)			11.566			6.563		4.905		0.970		-		0.970							
Plus CY Advance Procurement (\$ in Millions)			-			-		-		-		-		-							
<b>Total Obligation Authority</b> (\$ in Millions)			<b>11.566</b>			<b>6.563</b>		<b>4.905</b>		<b>0.970</b>		<b>-</b>		<b>0.970</b>							
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares (\$ in Millions)			-			-		-		-		-		-		-					
Gross/Weapon System Unit Cost (\$ in Thousands)			-			-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)			
Hardware Cost																					
Recurring Cost																					
Prior/Future combined efforts	-	-	11.566	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
NGDS - Systems <sup>(t)</sup>	-	-	0.000	39.231	39	1.530	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
NGDS 2 MAN-PORTABLE DIAGNOSTIC AND ASSAYS - Systems <sup>(t)</sup>	-	-	0.000	-	-	0.000	11.000	144	1.584	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Recurring Cost</i>	-	-	<i>11.566</i>	-	-	<i>1.530</i>	-	-	<i>1.584</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
Non Recurring Cost																					
NGDS - Hardware Upgrades	-	-	0.000	-	-	0.350	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.350</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
<i>Subtotal: Hardware Cost</i>	-	-	<i>11.566</i>	-	-	<i>1.880</i>	-	-	<i>1.584</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
Package Fielding Cost																					
Recurring Cost																					
Provisioning - Assay and Reagents	-	-	0.000	-	-	1.246	-	-	0.024	-	-	0.377	-	-	-	-	-	0.377			
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>1.246</i>	-	-	<i>0.024</i>	-	-	<i>0.377</i>	-	-	-	-	-	<i>0.377</i>			
Non Recurring Cost																					
NGDS - Initial Training	-	-	0.000	-	-	0.930	-	-	0.045	-	-	0.000	-	-	-	-	-	0.000			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness									<b>Item Number / Title [DODIC]:</b> JM8788 / NEXT GENERATION DIAGNOSTICS SYSTEM (NGDS)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:														
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
NGDS - Fielding Expense	-	-	0.000	-	-	0.388	-	-	0.149	-	-	0.199	-	-	-	-	-	0.199
TPF	-	-	0.000	-	-	0.000	-	-	1.099	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Non Recurring Cost</i>	-	-	0.000	-	-	1.318	-	-	1.293	-	-	0.199	-	-	-	-	-	0.199
<i>Subtotal: Package Fielding Cost</i>	-	-	<b>0.000</b>	-	-	<b>2.564</b>	-	-	<b>1.317</b>	-	-	<b>0.576</b>	-	-	-	-	-	<b>0.576</b>
Logistics Cost																		
Recurring Cost																		
NGDS - Contractor Logistic Support	-	-	0.000	-	-	0.106	-	-	0.092	-	-	0.307	-	-	-	-	-	0.307
Logistics Program Implementation and Initial Training	-	-	0.000	-	-	0.000	-	-	0.013	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.106</b>	-	-	<b>0.105</b>	-	-	<b>0.307</b>	-	-	-	-	-	<b>0.307</b>
<i>Subtotal: Logistics Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.106</b>	-	-	<b>0.105</b>	-	-	<b>0.307</b>	-	-	-	-	-	<b>0.307</b>
Support Cost																		
NGDS - PMO Support	-	-	0.000	-	-	0.106	-	-	0.046	-	-	0.040	-	-	-	-	-	0.040
NGDS 2 MAN-PORTABLE DIAGNOSTIC AND ASSAYS - PMO Support	-	-	0.000	-	-	0.000	-	-	1.536	-	-	0.000	-	-	-	-	-	0.000
Contractor Web Support	-	-	0.000	-	-	0.000	-	-	0.050	-	-	0.000	-	-	-	-	-	0.000
Proficiency Testing	-	-	0.000	-	-	0.608	-	-	0.084	-	-	0.000	-	-	-	-	-	0.000
Training	-	-	0.000	-	-	0.755	-	-	0.113	-	-	0.000	-	-	-	-	-	0.000
NGDS - Fielding Support	-	-	0.000	-	-	0.544	-	-	0.070	-	-	0.047	-	-	-	-	-	0.047
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>2.013</b>	-	-	<b>1.899</b>	-	-	<b>0.087</b>	-	-	-	-	-	<b>0.087</b>
<i>Gross/Weapon System Cost</i>	-	-	<b>11.566</b>	-	-	<b>6.563</b>	-	-	<b>4.905</b>	-	-	<b>0.970</b>	-	-	-	-	-	<b>0.970</b>
<b>Remarks:</b>																		
The Next Generation Diagnostic System (NGDS) is a family of systems providing increments of diagnostic capabilities over time that address varied chemical, biological and radiological (CBR) threats across the different echelons of the Combat Health Support System. The mission of the NGDS is to provide CBR threat and infectious disease identification and FDA-cleared diagnostics to inform individual patient treatment and CBR situational awareness and disease surveillance. NGDS Increment 1 improves diagnostic capabilities in deployable and laboratory-based combat health support units. NGDS Inc 1 offers improved operational suitability and affordability over legacy systems by developing FDA cleared biological warfare agent (BWA) and infectious disease in vitro diagnostic (IVD) assays on an existing commercial diagnostic device with a well established FDA regulatory history and pipeline of commercial non-BWA infectious disease diagnostic tests. NGDS 2 will complement NGDS 1 by developing diagnostics for unmet biological pathogen and toxin threats, chemical and radiological exposures, and to provide capability to lower echelons of care. NGDS 2 will provide additional capability for diagnosis of CBR-induced diseases,																		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> JM8788 / NEXT GENERATION DIAGNOSTICS SYSTEM (NGDS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
suitable for use in far forward environments, by developing lightweight, portable, and simple-to-use instruments and test kits. In FY21 NGDS has been broken out into two separate program lines; the NGDS (1) program and the NGDS 2 Man Portable Diagnostic System (MPDS) Program.		
Justification: FY21 funds Total Package Fielding (TPF), Contractor Logistics Support, web support and training		
(†) indicates the presence of a P-5a		

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness						<b>Item Number / Title [DODIC]:</b> JM8788 / NEXT GENERATION DIAGNOSTICS SYSTEM (NGDS)			
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
NGDS - Systems		2019	BioFire Dx / Salt Lake City, UT	SS / FFP	ACC-APG-NCD, Ft. Detrick, MD	Jan 2019	Aug 2019	39	39.000	Y		
NGDS 2 MAN-PORTABLE DIAGNOSTIC AND ASSAYS - Systems		2020	TBD / N/A	SS / FP	TBD	Jan 2020	Jul 2020	144	11.000	Y		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness									<b>Item Number / Title [DODIC]:</b> SA0044 / NEXT GEN DIAG 2 MAN PORTABLE DIAGNOSTIC SYSTEM (NGDS 2 MPDS)						
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B													<b>MDAP/MAIS Code:</b>						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							0.000		0.000		0.000		0.455		-		0.455		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							0.000		0.000		0.000		0.455		-		0.455		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							0.000		0.000		0.000		0.455		-		0.455		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	
Hardware Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
NGDS 2 MPDS - Man Portable Diagnostic System (MPDS) <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	10.000	23	0.230	-	-	-	10.000	23	0.230	
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.230</b>	-	-	-	-	-	<b>0.230</b>	
<i>Subtotal: Hardware Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.230</b>	-	-	-	-	-	<b>0.230</b>	
Package Fielding Cost																			
Non Recurring Cost																			
NGDS 2 MPDS - Assay Panels	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.024	-	-	-	-	-	0.024	
<i>Subtotal: Non Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.024</b>	-	-	-	-	-	<b>0.024</b>	
<i>Subtotal: Package Fielding Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.024</b>	-	-	-	-	-	<b>0.024</b>	
Support Cost																			
NGDS 2 MPDS - PMO Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.201	-	-	-	-	-	0.201	
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.201</b>	-	-	-	-	-	<b>0.201</b>	

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020								
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> SA0044 / NEXT GEN DIAG 2 MAN PORTABLE DIAGNOSTIC SYSTEM (NGDS 2 MPDS)							
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B													<b>MDAP/MAIS Code:</b>								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>			
Gross/Weapon System Cost	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.455	-	-	-	-	-	0.455			

**Remarks:**

The Next Generation Diagnostic System (NGDS) 2 program addresses chemical, biological and radiological (CBR) agents and Concepts Of Employments (COEs) that the NGDS 1 Film Array does not address. More than one materiel solution is required to expand the scope of CBR agent diagnostics across multiple echelons of care. NGDS 2 will employ a family of systems approach to bridge identified capability gaps for man-portable diagnostics, immunoassay diagnostics, and chemical diagnostics systems. NGDS 2 Man Portable Diagnostic System (MPDS) will complement NGDS Increment 1 by providing a lightweight, portable, and simple-to-use diagnostic capability to end-users in non-laboratory, far-forward environments. In FY21 NGDS has been broken out into two separate programs; the NGDS (1) program and the NGDS 2 Man Portable Diagnostic System (MPDS) Program.

Justification: FY21 funding procures 23 NGDS 2 Man Portable Diagnostic systems for United States Special Operations Command (USSOCOM) train-the-trainer training.

RDT&E Code B Item: 0604384BP/Proj MB5; 0607384BP/Proj MB7

MB5/NGDS 2 MPDS: RDT&E ; FY2021 - 29.424 Million; FY2022 - 12.183 Million; FY2023 - 8.551 Million; FY2024 - 1.481 Million  
 MB7/NGDS 2 MPDS: RDT&E ; FY2025 - 0.224 Million

**DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES**

NGDS 2 MPDS - Man Portable Dx System (MPDS) MS C / LRIP: Aug 2021  
 NGDS 2 MPDS - Man Portable Dx System (MPDS) FRP: Dec 2023  
 NGDS 2 MPDS - Man Portable Dx System SOCOM IOC: Sep 2023

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program									<b>Date:</b> February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness					Item Number / Title [DODIC]: SA0044 / NEXT GEN DIAG 2 MAN PORTABLE DIAGNOSTIC SYSTEM (NGDS 2 MPDS)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
NGDS 2 MPDS - Man Portable Diagnostic System (MPDS)		2021	TBD / N/A	SS / FFP	TBD	Aug 2021	Sep 2021	23	10.000	Y		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020								
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> JS0005 / COMMON ANALYTICAL LABORATORY SYSTEM (CALS)								
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B													<b>MDAP/MAIS Code:</b>								
<b>Resource Summary</b>			<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>							
Procurement Quantity ( <i>Units in Each</i> )						-		-		-		-		-							
Gross/Weapon System Cost (\$ in Millions)						37.064		48.317		4.293		37.173		-		37.173					
Less PY Advance Procurement (\$ in Millions)						-		-		-		-		-		-					
Net Procurement (P-1) (\$ in Millions)						37.064		48.317		4.293		37.173		-		37.173					
Plus CY Advance Procurement (\$ in Millions)						-		-		-		-		-		-					
<b>Total Obligation Authority</b> (\$ in Millions)						<b>37.064</b>		<b>48.317</b>		<b>4.293</b>		<b>37.173</b>		<b>-</b>		<b>37.173</b>					
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares (\$ in Millions)						-		-		-		-		-		-					
Gross/Weapon System Unit Cost (\$ in Thousands)						-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)			
Hardware Cost																					
Recurring Cost																					
Prior/Future combined efforts	-	-	37.064	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
ALS MOD Long Lead Items	-	-	0.000	1,422.208	24	34.133	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
PR 2 - PR2 Bio-Subsystems Hardware <sup>(†)</sup>	-	-	0.000	-	-	0.000	106.579	19	2.025	109.750	28	3.073	-	-	-	109.750	28	3.073			
CALS FC ACS - Production Hardware <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	409.636	11	4.506	-	-	-	409.636	11	4.506			
CALS TV IS - CALS TVIS Hardware <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	2,360.500	4	9.442	-	-	-	2,360.500	4	9.442			
<i>Subtotal: Recurring Cost</i>	-	-	<b>37.064</b>	-	-	<b>34.133</b>	-	-	<b>2.025</b>	-	-	<b>17.021</b>	-	-	-	-	-	<b>17.021</b>			
<i>Subtotal: Hardware Cost</i>	-	-	<b>37.064</b>	-	-	<b>34.133</b>	-	-	<b>2.025</b>	-	-	<b>17.021</b>	-	-	-	-	-	<b>17.021</b>			
Logistics Cost																					
Recurring Cost																					
ALS MOD Fielding	-	-	0.000	-	-	2.671	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
PR 2 - PR2 Bio-Subsystems Fielding	-	-	0.000	-	-	0.000	-	-	0.323	-	-	0.476	-	-	-	-	-	0.476			
PR 2 - PR2 Bio-Subsystems Training	-	-	0.000	-	-	0.000	-	-	0.304	-	-	0.448	-	-	-	-	-	0.448			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness								<b>Item Number / Title [DODIC]:</b> JS0005 / COMMON ANALYTICAL LABORATORY SYSTEM (CALS)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>													
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																	
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>				
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>		
PR 2 - PR2 Bio-Subsystems Consumables <sup>(†)</sup>	-	-	0.000	-	-	0.000	50.263	19	0.955	51.786	28	1.450	-	-	51.786	28	1.450
CALS FC ACS - Fielding	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.081	-	-	-	-	1.081
CALS FC ACS Training	-	-	0.000	-	-	0.000	-	-	0.000	-	-	2.040	-	-	-	-	2.040
CALS TV IS - CALS TVIS Fielding	-	-	0.000	-	-	0.000	-	-	0.000	-	-	4.398	-	-	-	-	4.398
CALS TV IS - CALS TVIS Training	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.090	-	-	-	-	1.090
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>2.671</b>	-	-	<b>1.582</b>	-	-	<b>10.983</b>	-	-	-	-	<b>10.983</b>
<i>Subtotal: Logistics Cost</i>	-	-	<b>0.000</b>	-	-	<b>2.671</b>	-	-	<b>1.582</b>	-	-	<b>10.983</b>	-	-	-	-	<b>10.983</b>
<b>Support Cost</b>																	
ALS MOD Test & Evaluation	-	-	0.000	-	-	2.077	-	-	0.000	-	-	0.000	-	-	-	-	0.000
ALS MOD Engineering Changes	-	-	0.000	-	-	1.629	-	-	0.000	-	-	0.000	-	-	-	-	0.000
ALS MOD Program & Engineering Support	-	-	0.000	-	-	7.807	-	-	0.000	-	-	0.000	-	-	-	-	0.000
PR 2 - PR2 Bio-Subsystems PMO	-	-	0.000	-	-	0.000	-	-	0.686	-	-	0.872	-	-	-	-	0.872
CALS FC ACS Test & Evaluation	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.585	-	-	-	-	1.585
CALS FC ACS System Engineering Program Management	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.895	-	-	-	-	0.895
CALS FC ACS PMO Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	2.129	-	-	-	-	2.129
CALS TV IS - CALS TVIS PMO Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	2.203	-	-	-	-	2.203
CALS TV IS - CALS TVIS System Engineering Program Management	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.485	-	-	-	-	1.485
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>11.513</b>	-	-	<b>0.686</b>	-	-	<b>9.169</b>	-	-	-	-	<b>9.169</b>
<b>Gross/Weapon System Cost</b>	-	-	<b>37.064</b>	-	-	<b>48.317</b>	-	-	<b>4.293</b>	-	-	<b>37.173</b>	-	-	-	-	<b>37.173</b>
<b>Remarks:</b>																	

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> JS0005 / COMMON ANALYTICAL LABORATORY SYSTEM (CALS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
The Common Analytical Laboratory System (CALS) capability integrates a common suite of commercial-and government-off-the-shelf (COTS/GOTS) components to provide a common, modular, and transportable/mobile analytical laboratory system to support Department of Defense (DoD) field analytic units. CALS consists of two (2) variants, Field Confirmatory Analytical Capability Sets (FC ACS) and Theater Validation Integrated System (TV IS), and will support the detection and/or identification of Chemical Warfare Agents (CWAs), Toxic Industrial Chemicals (TICs), Toxic Industrial Materials (TIMs), Biological Warfare Agents (BWAs), and radiological material in environmental samples. Information produced by CALS variants will assist commanders or the local authority with managing and mitigating the effects of a Chemical, Biological, Radiological (CBR) attack or disaster by providing the ability to rapidly develop a common operating picture to determine the appropriate course of action. The systems fielded will be designed to support the specific mission and Concept of Operations (CONOPS) of the gaining unit.		
The CALS FC ACS will be fielded to the various units within the US Army, Navy, Air Force, and National Guard Bureau. FC ACS system is comprised of biological and chemical subsystems. The FC ACS chemical subsystem components include a Gas Chromatograph / Mass Spectrometer (GC/MS), Fourier Transform-Infrared (FT-IR) spectrometer, and Raman spectrometer. The FC ACS biological subsystem components include Lateral Flow Immunoassays (LFIA), Electrochemiluminescence (ECL), and Polymerase Chain Reaction (PCR). Units employing FC ACS, based on their mission requirements, personnel education and training, will be able to provide sample analysis that provides a second layer of analysis for meeting field confirmatory levels as defined in Tactics, Techniques, and Procedures (mission requirements dictate whether Units will receive the bio components, the chem components, or both bio/chem components). These analytical results will support decisions for protection, treatment, decontamination and planning in support of future operations. The PR2 uses electrochemiluminescence (ECL) technology to carry out highly sensitive, multiplexed immunoassays for biothreat agents. ECL immunoassays enable highly sensitive measurement of samples for the presence of bacteria, viruses, and toxins.		
The CALS TV IS will be fielded to the US Army Area Medical Laboratory (AML) and Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) Analytical and Remediation Activity (CARA). The TV IS will provide a higher level of confidence in analytical results than the FC ACS through the use of orthogonal technologies and an expanded analytical suite. The subsystems and associated components of the TV IS will be housed in three (3) common 20-foot ISO containers, which will be integrated onto two (2) M1148 trucks and one (1) M1147 trailer. Sample/specimen receipt, analytical testing, storage of consumables will be performed within the ISO containers. The Prime Movers and power generators are system organic. Operational units, some with and some without CBR technical capability and experience, will deliver unknown and presumptively identified environmental samples for TV IS analysis. TV IS provides operators with the ability to identify the presence of priority targets (as identified by the Services).		
Note: Prior to FY18, CALS consisted of 3 variants. On 03 May 18, the CALS Field Confirmatory Integrated System (FC IS) transitioned to a Modification Work Order (MWO), the Analytical Laboratory System (ALS) Modification (MOD) concept, to address operational readiness issues with the ALS Increment 1 as a result of system obsolescence.		
CALS FY19 funds were prioritized toward the ALS MOD efforts to address the operational readiness issues associated with the obsolescence of the ALS Increment 1 vehicle, shelter, and analytical suite. For FY20 and beyond, ALS MOD funding is captured under Item Number SA0025, to further define the CALS FC IS transition to ALS MOD.		
CALS FY20 funding supports the US Air Force identified urgent key capability gap that resulted in the decision to use FC ACS FY20 procurement funds to purchase 47 Meso Scale Diagnostics PR2 instruments (Bio ECL component). The PR2 uses electrochemiluminescence (ECL) technology to carry out highly sensitive, multiplexed immunoassays for biothreat agents. ECL immunoassays enable highly sensitive measurement of samples for the presence of bacteria, viruses, and toxins.		
The remaining chem/bio subsystem components that an FC ACS system is comprised of will be fielded to all FC ACS Users beginning in FY21 (FY21 funding procures production hardware for 11 FC ACS systems). An FC ACS system consists of the biological and chemical subsystem components defined in the description.		
While the FC ACS program was previously on hold to prevent cost growth, the 17 SEP 2019 Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense (JPEO-CBRND) Acquisition Decision Memorandum (ADM) authorized the FC ACS program to move forward with Production & Deployment (P&D) efforts as stakeholders successfully agreed to an affordable and executable acquisition strategy that addressed an "analytics only" approach to meet the Users mission requirements.		
Justification: FY21 funding procures production hardware for 11 FC ACS systems and 2 TV IS systems. Additionally, FY21 funding includes respective fielding, training, and System Engineering and Program Management (SEPM) support costs for the FC ACS and TV IS systems.		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> JS0005 / COMMON ANALYTICAL LABORATORY SYSTEM (CALS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
RDT&E Code B Item: 0603884BP/Proj CM4; 0604384BP/Proj CM5; 0606384BP/Proj CM7  CM4/CALS: RDT&E FY2018 and Prior - 41.368Million CM5/CALS: RDT&E FY2018 and Prior - 96.627Million; FY2019 - 4.775 Million; FY2020 - 10.146 Million		
DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES		
CALS - Milestone C (TV IS) Decision: Mar 2020 CALS - Full Rate Production Decision (TV IS): Feb 2021 CALS - P&D Contract Award (ACS): Nov 2020 CALS - Production & Deployment Test (ACS) (Jan 2021 to Apr 2021) CALS - Full Rate Production Decision (ACS): Jul 2021		
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness					Item Number / Title [DODIC]: JS0005 / COMMON ANALYTICAL LABORATORY SYSTEM (CALS)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
PR 2 - PR2 Bio-Subsystems Hardware		2020	Meso Scale Diagnostics LLC / Rockville, MD	SS / FFP	Rockville, MD	Jan 2020	May 2020	19	106.579	Y		
PR 2 - PR2 Bio-Subsystems Hardware		2021	Meso Scale Diagnostics LLC / Rockville, MD	SS / FFP	Rockville, MD	Nov 2021	Mar 2022	28	109.750	Y		
CALS FC ACS - Production Hardware		2021	TBD / N/A	C / FFP	TBD	Mar 2021	Jul 2021	11	409.636	Y		Oct 2020
CALS TV IS - CALS TVIS Hardware <sup>(†)</sup>		2021	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Feb 2021	Sep 2021	4	2,360.500	Y		
PR 2 - PR2 Bio-Subsystems Consumables		2020	Defense Biological Product Assurance Office / Frederick, MD	MIPR	ACC-APG-NCD, Ft. Detrick, MD	Jan 2020	Feb 2020	19	50.263	Y		
PR 2 - PR2 Bio-Subsystems Consumables		2021	Defense Biological Product Assurance Office / Frederick, MD	MIPR	ACC-APG-NCD, Ft. Detrick, MD	Oct 2021	Nov 2021	28	51.786	Y		

<sup>(†)</sup> indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																			Date: February 2020																					
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1										P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness										Item Number / Title [DODIC]: JS0005 / COMMON ANALYTICAL LABORATORY SYSTEM (CALS)																				
Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												B A L A N C E									
O C O #	M F R	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P										
CALS TV IS - CALS TVIS Hardware																																								
1	2021	CBDP	4	0	4																																	1	3	
Secondary Distribution	ARMY		4	0	4																																		1	3

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																				Date: February 2020																							
Appropriation / Budget Activity / Budget Sub Activity: 03000D / 03 / 1										P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness										Item Number / Title [DODIC]: JS0005 / COMMON ANALYTICAL LABORATORY SYSTEM (CALS)																							
Cost Elements (Units in Each)								Fiscal Year 2022												Fiscal Year 2023												B A L A N C E											
O C O #	M F R	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P													
CALS TV IS - CALS TVIS Hardware																														0													
1	2021	CBDP	4	1	3	1	1	1																																			
Secondary Distribution	ARMY		4	1	3	1	1	1																																			
																				O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P

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<b>Exhibit P-21, Production Schedule:</b> PB 2021 Chemical and Biological Defense Program									<b>Date:</b> February 2020		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness					<b>Item Number / Title [DODIC]:</b> JS0005 / COMMON ANALYTICAL LABORATORY SYSTEM (CALS)			
<b>MFR Ref #</b>	<b>Manufacturer Name - Location</b>	<b>Production Rates (Each / Month)</b>			<b>Procurement Leadtime (Months)</b>						
		<b>MSR For 2021</b>	<b>1-8-5 For 2021</b>	<b>MAX For 2021</b>	<b>Initial</b>	<b>ALT Prior to Oct 1</b>	<b>ALT After Oct 1</b>	<b>Manufacturing PLT</b>	<b>Total After Oct 1</b>	<b>ALT Prior to Oct 1</b>	<b>ALT After Oct 1</b>
1	Pine Bluff Arsenal - Pine Bluff, AR	1	1	2	0	1	0	0	1	0	0

(†) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020								
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> SA0025 / ANALYTICAL LABORATORY SYSTEM MODIFICATION (ALS MOD)								
ID Code (A=Service Ready, B=Not Service Ready) : B													MDAP/MAIS Code:								
<b>Resource Summary</b>			<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>							
Procurement Quantity ( <i>Units in Each</i> )						-		-		-		-		-							
Gross/Weapon System Cost (\$ in Millions)						0.000		0.000		55.158		27.335		-		27.335					
Less PY Advance Procurement (\$ in Millions)						-		-		-		-		-		-					
Net Procurement (P-1) (\$ in Millions)						0.000		0.000		55.158		27.335		-		27.335					
Plus CY Advance Procurement (\$ in Millions)						-		-		-		-		-		-					
<b>Total Obligation Authority</b> (\$ in Millions)						<b>0.000</b>		<b>0.000</b>		<b>55.158</b>		<b>27.335</b>		<b>-</b>		<b>27.335</b>					
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares (\$ in Millions)						-		-		-		-		-		-					
Gross/Weapon System Unit Cost (\$ in Thousands)						-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)			
Hardware Cost																					
Recurring Cost																					
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
ALS MOD - Production <sup>(†)</sup>	-	-	0.000	-	-	0.000	1,766.304	23	40.625	1,779.000	7	12.453	-	-	-	1,779.000	7	12.453			
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	40.625	-	-	12.453	-	-	-	-	-	12.453			
<i>Subtotal: Hardware Cost</i>	-	-	0.000	-	-	0.000	-	-	40.625	-	-	12.453	-	-	-	-	-	12.453			
Logistics Cost																					
Recurring Cost																					
ALS MOD - Fielding Costs	-	-	0.000	-	-	0.000	-	-	5.006	-	-	6.203	-	-	-	-	-	6.203			
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	5.006	-	-	6.203	-	-	-	-	-	6.203			
<i>Subtotal: Logistics Cost</i>	-	-	0.000	-	-	0.000	-	-	5.006	-	-	6.203	-	-	-	-	-	6.203			
Support Cost																					
ALS MOD - System Test & Evaluation - IA Support																					
ALS MOD - Program and Engineering Support	-	-	0.000	-	-	0.000	-	-	7.809	-	-	8.679	-	-	-	-	-	8.679			
ALS MOD - Engineering Changes	-	-	0.000	-	-	0.000	-	-	1.444	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.000	-	-	9.527	-	-	8.679	-	-	-	-	-	8.679			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020								
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> SA0025 / ANALYTICAL LABORATORY SYSTEM MODIFICATION (ALS MOD)							
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B													<b>MDAP/MAIS Code:</b>								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>			
Gross/Weapon System Cost	-	-	0.000	-	-	0.000	-	-	55.158	-	-	27.335	-	-	-	-	-	27.335			

**Remarks:**  
The Analytical Laboratory System (ALS) Modification (MOD) program was established to address critical analytical equipment obsolescence (Analytical Suite) and system functionality for the National Guard Bureau's (NGB) Civil Support Teams. The ALS MOD capability will be modular, scalable and adaptable to various environmental conditions. Additionally, the ALS MOD will support the specific mission and Concept of Operations (CONOPS) of the gaining unit and will be able to detect and/or identify Chemical Warfare Agents (CWAs), Toxic Industrial Chemicals (TICs), Toxic Industrial Materials (TIMs), Biological Warfare Agents (BWAs), and radiological material in environmental samples.

Previously fielded ALS variants {2002-2005} to the NGB have experienced degraded system performance. Documented ALS system criticalities include obsolete prime movers, shelters, and analytical suite equipment. Services lease prime movers for the ALS MOD effort. The PM will be responsible for modifying the prime mover, modernizing the shelter, analytical suite equipment, to include network and IT equipment, for the ALS MOD.

ALS MOD program supports the evaluation of advancements in CBRN commercial- and government-off-the-shelf (COTS/GOTS) equipment against the current technology baseline of equipment fielded to the (57) WMD-CST Teams. As such, the program will establish a time phased modernization plan to integrate and incorporate advancements in commercially available technology refresh into the CST operating mission set ahead of critical obsolescence. ALS MOD obsolescence will be done in concert with the two CALS variants (Theater Validation Integrated System (TV IS) and Field Confirmatory Analytical Capability Set (FC ACS)).

The ALS MOD will be fielded to the 57 NGB's WMD-CST Teams, the Army's 773rd CST, and USMC's Chemical Biological Incident Response Force.

Note: CALS FY19 funds were used to support the ALS MOD efforts to address the operational readiness issues associated with the obsolescence of the ALS Increment 1 vehicle, shelter, and analytical suite. For FY20 and beyond, ALS MOD funding is captured in this separate P-form budget exhibit. The ALS MOD P-form budget exhibit contains funding that once resided in the CALS P-form budget exhibit, and was transferred over to further define the CALS FC IS transition to ALS MOD.

Justification: FY21 Funding procures long lead items to support production of 6 systems in FY22. Additionally, FY21 funding includes labor and management support costs for the FY21 production build of 23 systems (hardware costs for these 23 systems are captured in FY20 procurement cost elements).

RDT&E Code B Item: 0607384BP/Proj CM7

CM7/ALS MOD: RDT&E ; FY2020 - 0.847 Million

DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> SA0025 / ANALYTICAL LABORATORY SYSTEM MODIFICATION (ALS MOD)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
ALS MOD FOC: Jun 2022 ALS MOD Production & Deployment (Jun 2019 to Jun 2022) ALS MOD - Fielding Decision Marine Corps & 773rd Civil Support Team: Jul 2020		
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness					Item Number / Title [DODIC]: SA0025 / ANALYTICAL LABORATORY SYSTEM MODIFICATION (ALS MOD)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
ALS MOD - Production <sup>(†)</sup>		2020	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Dec 2020	Jan 2021	23	1,766.304	Y		
ALS MOD - Production <sup>(†)</sup>		2021	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Jun 2021	Dec 2021	7	1,779.000	Y		

(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																			Date: February 2020																				
Appropriation / Budget Activity / Budget Sub Activity: 03000D / 03 / 1										P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness										Item Number / Title [DODIC]: SA0025 / ANALYTICAL LABORATORY SYSTEM MODIFICATION (ALS MOD)																			
Cost Elements (Units in Each)								Fiscal Year 2021												Fiscal Year 2022												B A L A N C E							
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P									
ALS MOD - Production																																							
	1	2020	CBDP	23	0	23			A -	2	2	2	2	2	2	2	2	2	2	2	2	2	1													0			
Secondary Distribution	ARMY : ANG		23	0	23			A -	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1													0			
	1	2021	CBDP	7	0	7																																	0
Secondary Distribution	ARMY		1	0	1																																	0	
	MC		2	0	2																																	0	
	ARMY : ANG		4	0	4																																	0	
								O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P								

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<b>Exhibit P-21, Production Schedule:</b> PB 2021 Chemical and Biological Defense Program									<b>Date:</b> February 2020				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness					<b>Item Number / Title [DODIC]:</b> SA0025 / ANALYTICAL LABORATORY SYSTEM MODIFICATION (ALS MOD)					
<b>MFR Ref #</b>	<b>Manufacturer Name - Location</b>	<b>Production Rates (Each / Month)</b>			<b>Procurement Leadtime (Months)</b>								
		<b>MSR For 2021</b>	<b>1-8-5 For 2021</b>	<b>MAX For 2021</b>	<b>Initial</b>	<b>ALT Prior to Oct 1</b>	<b>ALT After Oct 1</b>	<b>Manufacturing PLT</b>	<b>Total After Oct 1</b>	<b>ALT Prior to Oct 1</b>	<b>ALT After Oct 1</b>	<b>Manufacturing PLT</b>	<b>Total After Oct 1</b>
1	Pine Bluff Arsenal - Pine Bluff, AR	2	2	2	0	1	2	3	0	1	1	1	2

**Remarks:**

Production rates are monthly for all manufacturers

(†) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> JS0007 / SPU CBE CHEMICAL BIOLOGICAL INCIDENT RESPONSE FORCE (SPU CBE CBIRF)							
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>							
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>					
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-					
Gross/Weapon System Cost (\$ in Millions)							3.623		1.384		1.089		1.083		-		1.083			
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-			
Net Procurement (P-1) (\$ in Millions)							3.623		1.384		1.089		1.083		-		1.083			
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-			
<b>Total Obligation Authority</b> (\$ in Millions)							3.623		1.384		1.089		1.083		-		1.083			
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																				
Initial Spares (\$ in Millions)									-		-		-		-		-			
Gross/Weapon System Unit Cost (\$ in Thousands)									-		-		-		-		-			
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																				
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>				
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)		
Hardware Cost																				
Recurring Cost																				
Prior/Future combined efforts	-	-	3.623	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000		
PERSONAL PROTECTIVE EQUIPMENT CLASS 3 - Ensembles <sup>(t)</sup>	-	-	0.000	1.106	686	0.759	1.105	788	0.871	-	-	0.000	-	-	-	-	-	0.000		
PERSONAL PROTECTIVE EQUIPMENT HAZMAT BOOTS - Boots <sup>(t)</sup>	-	-	0.000	0.071	6,960	0.494	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000		
PERSONAL PROTECTIVE EQUIPMENT NIOSH PAPR - Hardware <sup>(t)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	1.700	450	0.765	-	-	-	1.700	450	0.765		
<i>Subtotal: Recurring Cost</i>	-	-	3.623	-	-	1.253	-	-	0.871	-	-	0.765	-	-	-	-	-	0.765		
<i>Subtotal: Hardware Cost</i>	-	-	3.623	-	-	1.253	-	-	0.871	-	-	0.765	-	-	-	-	-	0.765		
Support Cost																				
SPU CBE (CBIRF) Radiological (RAD) Personal Protective	-	-	0.000	-	-	0.094	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000		

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Exhibit P-5, Cost Analysis: PB 2021 Chemical and Biological Defense Program													Date: February 2020												
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1				P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness									Item Number / Title [DODIC]: JS0007 / SPU CBE CHEMICAL BIOLOGICAL INCIDENT RESPONSE FORCE (SPU CBE CBIRF)												
ID Code (A=Service Ready, B=Not Service Ready) : A													MDAP/MAIS Code:												
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																									
Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total									
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)							
Equipment (PPE) Tactics Techniques and Pro...																									
SPU CBE (CBIRF) Engineering and Logistics Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.180	-	-	-	-	0.180								
SPU CBE (CBIRF) Program Management and Support	-	-	0.000	-	-	0.037	-	-	0.218	-	-	0.138	-	-	-	-	0.138								
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.131</b>	-	-	<b>0.218</b>	-	-	<b>0.318</b>	-	-	-	-	<b>0.318</b>								
<b>Gross/Weapon System Cost</b>	-	-	<b>3.623</b>	-	-	<b>1.384</b>	-	-	<b>1.089</b>	-	-	<b>1.083</b>	-	-	-	-	<b>1.083</b>								

**Remarks:**

The Special Purpose Units-Chemical Biological Equipment (SPU-CBE) program provides the integrated Chemical, Biological, Radiological, Nuclear (CBRN) and High-Yield Explosive (CBRNE) rapid response force, which includes the Chemical Biological Incident Response Force (CBIRF), the capability packages that are required for the United States Northern Command to execute Department of Defense Support of Civil Authority (DSCA) missions. The purpose of this program is to address legacy requirements gaps/deficiencies for SPU-CBEs where they exist through the streamlined acquisition of commercial- and government-off-the-shelf (COTS/GOTS) capability upgrades that incorporate proven advancements in technology to satisfy mission performance standards. CBRNE protection is required for CONUS/OCONUS DoD installation physical structures as well as military personnel and others within the perimeter of the military reservation.

P5: Justification: FY21 Program procures 450 National Institute for Occupational Safety and Health (NIOSH) Chemical Biological Radiological and Nuclear (CBRN) Powered Air Purifying Respirators (PAPRs) for replacement of obsolete mission critical equipment.

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program									<b>Date:</b> February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness					Item Number / Title [DODIC]: JS0007 / SPU CBE CHEMICAL BIOLOGICAL INCIDENT RESPONSE FORCE (SPU CBE CBIRF)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
PERSONAL PROTECTIVE EQUIPMENT CLASS 3 - Ensembles		2019	HuntingtonIngalls Mission Driven Innovative Solutions / Huntsville, AL	C / FFP	ACC, APG, MD	Jan 2019	Apr 2019	686	1.106	Y		Dec 2018
PERSONAL PROTECTIVE EQUIPMENT CLASS 3 - Ensembles		2020	HuntingtonIngalls Mission Driven Innovative Solutions / Huntsville, AL	C / FFP	ACC, APG, MD	Dec 2019 <sup>(2)</sup>	Mar 2020	788	1.105	Y		Nov 2019
PERSONAL PROTECTIVE EQUIPMENT HAZMAT BOOTS - Boots		2019	HuntingtonIngalls Mission Driven Innovative Solutions / Huntsville, AL	C / FFP	ACC, APG, MD	Jan 2019	Apr 2019	6,960	0.071	Y		Dec 2018
PERSONAL PROTECTIVE EQUIPMENT NIOSH PAPR - Hardware		2021	TBD / N/A	C / FFP	ACC, APG, MD	Nov 2020	Jun 2021	450	1.700	Y		Oct 2020

**Footnotes:**

<sup>(2)</sup> Option

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness									<b>Item Number / Title [DODIC]:</b> JS0008 / SPU CBE CBRN RESPONSE ENTERPRISE (SPU CBE CRE)						
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							11.907		2.400		0.000		0.000		-		0.000		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							11.907		2.400		0.000		0.000		-		0.000		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							11.907		2.400		0.000		0.000		-		0.000		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	
Hardware Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	11.907	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
SPU CBE CRE - Depot Fielding Support	-	-	0.000	-	-	0.831	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
SPU CBE Engineering and Log Support	-	-	0.000	-	-	0.493	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
SPU CBE - Radiological (RAD) Personal Protective Equipment (PPE) Tactics Techniques and Procedure...	-	-	0.000	-	-	0.194	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
PERSONAL PROTECTION EQUIPMENT CLASS 3 - SPU CBE Personal Protective Equipment - Class 3 <sup>(†)</sup>	-	-	0.000	0.596	770	0.459	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
PERSONAL PROTECTION EQUIPMENT FILTER CANISTER - SPU CBE Personal	-	-	0.000	0.046	7,684	0.353	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020								
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> JS0008 / SPU CBE CBRN RESPONSE ENTERPRISE (SPU CBE CRE)							
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>			
Protective Equipment - Filter Ca... <sup>(†)</sup>																					
<i>Subtotal: Recurring Cost</i>	-	-	11.907	-	-	2.330	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Hardware Cost</i>	-	-	11.907	-	-	2.330	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
Support Cost																					
SPU CBE CRE - Program Management	-	-	0.000	-	-	0.070	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.070	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
<b>Gross/Weapon System Cost</b>	-	-	11.907	-	-	2.400	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			

**Remarks:**

The Integrated Chemical Biological Radiological and Nuclear Response Enterprise (CRE) provides rapid response capability through packages such as the Chemical, Biological, Radiological, Nuclear (CBRN) and High-Yield Explosive (CBRNE) Enhanced Response Force Package (CERFP), to the United States Army Reserve (USAR) Chemical Recon Platoons, Decon Platoons and Defense Support of Civil Authority CBRN Response Force (DCRF), and the 20th Support Command Nuclear Disablement (NDT) and CBRNE Teams. The purpose of this program is to address legacy requirements gaps/deficiencies for Special Purpose Units-Chemical Biological Equipment (SPU-CBE) where they exist through the streamlined acquisition of commercial- and government-off-the-shelf (COTS/GOTS) capability upgrades that incorporate proven advancements in technology to satisfy mission performance standards. CBRNE protection is required for CONUS/OCONUS DoD installation physical structures as well as military personnel and others within the perimeter of the military reservation.

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness					Item Number / Title [DODIC]: JS0008 / SPU CBE CBRN RESPONSE ENTERPRISE (SPU CBE CRE)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
PERSONAL PROTECTION EQUIPMENT CLASS 3 - SPU CBE Personal Protective Equipment - Class 3		2019	Federal Resources Supply Company / Stevensville, MD	C / FFP	ACC, APG, MD	Feb 2019	Oct 2019	770	0.596	Y		Dec 2018
PERSONAL PROTECTION EQUIPMENT FILTER CANISTER - SPU CBE Personal Protective Equipment - Filter Ca...		2019	Federal Resources Supply Company / Stevensville, MD	C / FFP	ACC, APG, MD	Feb 2019	Oct 2019	7,684	0.046	Y		Dec 2018

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness									<b>Item Number / Title [DODIC]:</b> JS5230 / SOFTWARE SUPPORT ACTIVITY (SSA)						
ID Code (A=Service Ready, B=Not Service Ready) : B													MDAP/MAIS Code:						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							0.314		0.094		0.081		0.074		-		0.074		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							0.314		0.094		0.081		0.074		-		0.074		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							<b>0.314</b>		<b>0.094</b>		<b>0.081</b>		<b>0.074</b>		<b>-</b>		<b>0.074</b>		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	
Support Cost																			
Prior/Future combined efforts	-	-	0.314	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
SSA - System Fielding Support (TPF, NET)	-	-	0.000	-	-	0.094	-	-	0.081	-	-	0.074	-	-	-	-	-	0.074	
<i>Subtotal: Support Cost</i>	-	-	<b>0.314</b>	-	-	<b>0.094</b>	-	-	<b>0.081</b>	-	-	<b>0.074</b>	-	-	-	-	-	<b>0.074</b>	
<b>Gross/Weapon System Cost</b>	-	-	<b>0.314</b>	-	-	<b>0.094</b>	-	-	<b>0.081</b>	-	-	<b>0.074</b>	-	-	-	-	-	<b>0.074</b>	
<b>Remarks:</b>																			
The Software Support Activity (SSA) is a user developmental support and service activity supporting all Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense (JPEO-CBRND) systems by providing enterprise-wide services to facilitate net-centric interoperability of systems in acquisition for the Warfighter. The SSA provides the CBRND Warfighter with Joint Service solutions for Cybersecurity/Information Assurance (CS/IA), Integrated Architectures, Data Management/Modeling, Interoperability Certifications, Verification, Validation and Accreditation (VV&A) to support interoperable and integrated net-centric, service-oriented solutions for CBRND systems within the CBPD. The SSA emphasizes development of reference implementations to guide Government and industry system and software developers to ensure that their products meet common interoperability standards.																			
The latest technologies/products include the definition of a Common CBRN Sensor Integration Standard (CCSI) and the CBRN Data Model. These technologies are direct enablers for the development of CBRN integrated sensor networks and the dissemination of CBRN information across all users.																			
The SSA directly supports CBPD Biosurveillance initiatives in providing common service oriented architecture and framework for the collection and dissemination of Biosurveillance information.																			
Justification: FY21 funds SSA system fielding support to the Chemical Biological Defense Program (CBDP) community.																			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> JS5230 / SOFTWARE SUPPORT ACTIVITY (SSA)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness												<b>Item Number / Title [DODIC]:</b> JX0210 / DEFENSE BIOLOGICAL PRODUCTS ASSURANCE PROGRAM (DBPAP)				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A												<b>MDAP/MAIS Code:</b>							
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							1.985		0.975		2.961		2.845		-		2.845		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							1.985		0.975		2.961		2.845		-		2.845		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							1.985		0.975		2.961		2.845		-		2.845		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	
Support Cost																			
Prior/Future combined efforts	-	-	1.985	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	0.000		
DBPAP - Consumables and Reagents, Repository Equipment, Maintenance, and Service Contracts	-	-	0.000	-	-	0.806	-	-	2.961	-	-	2.845	-	-	-	-	2.845		
DBPAP - Quality Assurance/Quality Control Support	-	-	0.000	-	-	0.169	-	-	0.000	-	-	0.000	-	-	-	-	0.000		
<i>Subtotal: Support Cost</i>	-	-	<b>1.985</b>	-	-	<b>0.975</b>	-	-	<b>2.961</b>	-	-	<b>2.845</b>	-	-	-	-	<b>2.845</b>		
<b>Gross/Weapon System Cost</b>	-	-	<b>1.985</b>	-	-	<b>0.975</b>	-	-	<b>2.961</b>	-	-	<b>2.845</b>	-	-	-	-	<b>2.845</b>		

**Remarks:**

The Defense Biological Product Assurance Program (DBPAP) integrates and consolidates DoD reagents (i.e., antibodies/antigens) and biological warfare agent detection requirements plus supports an internal initiative ("TARMAC") that uses state-of-the-art analytical capability for biological threats that will enable the compression of the discovery-to-decision time frame and provide awareness and understanding of the baseline biological threat footprint.

In order to detect biological warfare agents (antigen), a critical reagent (genomics material) may be needed for use in a detection platform. Multiple medical and non-medical platforms require a continuous, quality supply of critical reagents for effective warning to significantly enhance force survivability. They are also required for rapid medical diagnosis to ensure appropriate treatment of exposed personnel. A common set of reagents for relevant platforms are required.

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> JX0210 / DEFENSE BIOLOGICAL PRODUCTS ASSURANCE PROGRAM (DBPAP)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<p>The DBPAP is also responsible for managing the production, storage and validation of Hand Held Assays (HHAs), Polymerase Chain Reaction (PCR) genomic assays, Electrochemiluminescence (ECL) immunoassays, antibodies, and select biological threat agents and genomic reference materials. The DBPAP's PCR assays have been used in the DoD's response effort to the Ebola epidemic in West Africa that began in early 2014. Deployed laboratories from US Army Medical Research Institute of Infectious Diseases (USAMRIID), the Naval Medical Research Center's (NMRC) Biological Defense Research Directorate's (BDRD) Mobile Labs and the 1st Area Medical Lab (AML), as well as interagency partners such as the National Institutes of Health (NIH) National Institute of Allergies and Infectious Disease (NIAID), have all used DBPAP PCR assays to detect Ebola virus during their response missions in West Africa.</p>		
<p>Note: Antibodies, assays, and reference materials are ordered using outside source funding (DoD and other Government agencies).</p> <p>Justification: FY21 funds support repository management (i.e. production, storage, distribution and quality assurance validation) of assays, antibodies, select biological threat agent and genomic reference materials.</p>		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020																																																																																																																																														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> JX0301 / BIOSURVEILLANCE PORTAL (BSP)																																																																																																																																														
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>																																																																																																																																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Resource Summary</th> <th colspan="3">Prior Years</th> <th colspan="3">FY 2019</th> <th colspan="3">FY 2020</th> <th colspan="3">FY 2021 Base</th> <th colspan="3">FY 2021 OCO</th> <th colspan="3">FY 2021 Total</th> </tr> </thead> <tbody> <tr> <td>Procurement Quantity (<i>Units in Each</i>)</td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td>-</td></tr> <tr> <td>Gross/Weapon System Cost (\$ in Millions)</td><td></td><td></td><td></td><td></td><td>2.327</td><td></td><td></td><td>1.148</td><td></td><td></td><td>1.124</td><td></td><td></td><td>0.000</td><td></td><td></td><td>-</td><td></td><td>0.000</td></tr> <tr> <td>Less PY Advance Procurement (\$ in Millions)</td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td>-</td></tr> <tr> <td>Net Procurement (P-1) (\$ in Millions)</td><td></td><td></td><td></td><td></td><td>2.327</td><td></td><td></td><td>1.148</td><td></td><td></td><td>1.124</td><td></td><td></td><td>0.000</td><td></td><td></td><td>-</td><td></td><td>0.000</td></tr> <tr> <td>Plus CY Advance Procurement (\$ in Millions)</td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td>-</td></tr> <tr> <td><b>Total Obligation Authority</b> (\$ in Millions)</td><td></td><td></td><td></td><td></td><td><b>2.327</b></td><td></td><td></td><td><b>1.148</b></td><td></td><td></td><td><b>1.124</b></td><td></td><td></td><td><b>0.000</b></td><td></td><td></td><td>-</td><td></td><td><b>0.000</b></td></tr> </tbody> </table>													Resource Summary			Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total			Procurement Quantity ( <i>Units in Each</i> )				-			-			-			-			-		-	Gross/Weapon System Cost (\$ in Millions)					2.327			1.148			1.124			0.000			-		0.000	Less PY Advance Procurement (\$ in Millions)					-			-			-			-			-	-	Net Procurement (P-1) (\$ in Millions)					2.327			1.148			1.124			0.000			-		0.000	Plus CY Advance Procurement (\$ in Millions)					-			-			-			-			-	-	<b>Total Obligation Authority</b> (\$ in Millions)					<b>2.327</b>			<b>1.148</b>			<b>1.124</b>			<b>0.000</b>			-		<b>0.000</b>					
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Software Cost																																																																																																																																																											
Recurring Cost																																																																																																																																																											
Prior/Future combined efforts	-	-	2.327	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																									
Software and Installation	-	-	0.000	-	-	0.223	-	-	0.281	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																									
<i>Subtotal: Recurring Cost</i>	-	-	2.327	-	-	0.223	-	-	0.281	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																									
<i>Subtotal: Software Cost</i>	-	-	2.327	-	-	0.223	-	-	0.281	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																									
Package Fielding Cost																																																																																																																																																											
Recurring Cost																																																																																																																																																											
System Fielding Support (TFP, FDT, NET)	-	-	0.000	-	-	0.581	-	-	0.562	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																									
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.581	-	-	0.562	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																									
<i>Subtotal: Package Fielding Cost</i>	-	-	0.000	-	-	0.581	-	-	0.562	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																									
Support Cost																																																																																																																																																											
Technical Engineering Support	-	-	0.000	-	-	0.344	-	-	0.281	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																									
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.344	-	-	0.281	-	-	0.000	-	-	-	-	-	0.000																																																																																																																																									
<b>Gross/Weapon System Cost</b>	-	-	<b>2.327</b>	-	-	<b>1.148</b>	-	-	<b>1.124</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>																																																																																																																																									

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> JX0301 / BIOSURVEILLANCE PORTAL (BSP)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<b>Remarks:</b> The Global Biosurveillance Portal (Global-BSP) is a web-based enterprise environment that will facilitate collaboration, communication, and information sharing in support of the detection, management, and mitigation of man-made and naturally occurring biological events. Global-BSP bridges the communication gaps in the Biosurveillance domain to provide a central access point for Biosurveillance information and situational awareness for DoD, interagency and allied partners supporting the early identification and response to biological events. Global-BSP provides an integrated suite of web-based components designed to support public health officers, environmental officers, clinicians, physicians, and Chemical, Biological, Radiological, and Nuclear (CBRN) personnel as they maintain their situational awareness of local, regional, and global biological threats to the force. Global-BSP does not duplicate existing DoD capabilities, but rather leverages existing tools and technologies to provide users across multiple organizations and disciplines with a centralized "one-stop shop" for all of their Biosurveillance resources. The Global-BSP will achieve Full Operational Capability (FOC) in FY20 and commence transition to sustainment.		
Defense-Wide Review (DWR): The Chemical Biological Defense Program (CBDP) FY 2021 funding request was reduced by \$1.000 million to account for program being terminated.		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness								<b>Item Number / Title [DODIC]:</b> MC0100 / JOINT NBC RECONNAISSANCE SYSTEM (JNBCRS)						
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A												<b>MDAP/MAIS Code:</b>						
<b>Resource Summary</b>				<b>Prior Years</b>		<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )				-		-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)				7.918		0.000		0.300		0.000		-		0.000				
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-				
Net Procurement (P-1) (\$ in Millions)				7.918		0.000		0.300		0.000		-		0.000				
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-				
<b>Total Obligation Authority</b> (\$ in Millions)				7.918		0.000		0.300		0.000		-		0.000				
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares (\$ in Millions)				-		-		-		-		-		-				
Gross/Weapon System Unit Cost (\$ in Thousands)				-		-		-		-		-		-				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Support Cost																		
Prior/Future combined efforts	-	-	7.918	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Engineering Support	-	-	0.000	-	-	0.000	-	-	0.300	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Support Cost</i>	-	-	<b>7.918</b>	-	-	<b>0.000</b>	-	-	<b>0.300</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>
Gross/Weapon System Cost	-	-	7.918	-	-	0.000	-	-	0.300	-	-	0.000	-	-	-	-	-	0.000

**Remarks:**

The Joint Nuclear Biological and Chemical Reconnaissance Systems (JNBCRS), including the Stryker Nuclear Biological and Chemical Reconnaissance Vehicles (NBCRV), and Nuclear Biological and Chemical (NBC) equipment suites provide field commanders with point and early warning intelligence for real time field assessment of NBC hazards. The NBC Equipment Suite consists of the Chemical and Biological Mass Spectrometer II (CBMS II), Joint Biological Point Detection System (JBPD), Chemical Vapor Sampling System (CVSS), Training Aids, Devices and Simulation Systems (TADSS), the Sensor Processing Group and associated initial and pipeline spares. The NBC Equipment Suite performs the vital function of detecting, identifying, collecting, reporting, and marking NBC hazards and toxic industrial chemicals. In addition to hardware funding covers Engineering in Support to Production at contractor and Government integrated product team (engineering, test, logistics) support required in FY18, FY19, and FY20 for to support system upgrade efforts.

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020								
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> MC0101 / CBRN DISMOUNTED RECONNAISSANCE SYSTEMS (CBRN DRS)								
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>								
<b>Resource Summary</b>				<b>Prior Years</b>		<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>							
Procurement Quantity ( <i>Units in Each</i> )				-		-		-		-		-		-							
Gross/Weapon System Cost (\$ in Millions)				160.086		98.231		58.020		47.393		-		47.393							
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-							
Net Procurement (P-1) (\$ in Millions)				160.086		98.231		58.020		47.393		-		47.393							
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-							
<b>Total Obligation Authority</b> (\$ in Millions)				<b>160.086</b>		<b>98.231</b>		<b>58.020</b>		<b>47.393</b>		<b>-</b>		<b>47.393</b>							
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																					
Initial Spares (\$ in Millions)				-		-		-		-		-		-		-					
Gross/Weapon System Unit Cost (\$ in Thousands)				-		-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)			
Hardware Cost																					
Recurring Cost																					
Prior/Future combined efforts	-	-	160.086	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
CBRN DRS Army Configuration <sup>(†)</sup>	-	-	0.000	1,166.250	24	27.990	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
MARINE CORPS EOD - CBRN DRS USMC EOD MUE Teams <sup>(†)</sup>	-	-	0.000	1,194.000	7	8.358	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
MARINE CORPS EOD - CBRN DRS USMC EOD MARSOC Teams Configuration <sup>(†)</sup>	-	-	0.000	1,202.600	5	6.013	1,000.357	14	14.005	-	-	0.000	-	-	-	-	-	0.000			
MARINE CORPS EOD - CBRN DRS USMC EOD Teams (Explosive Ordnance Disposal Teams) Configuration <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	838.700	20	16.774	-	-	-	838.700	20	16.774			
CBRN DRS Air Force Configuration <sup>(†)</sup>	-	-	0.000	250.650	40	10.026	196.100	50	9.805	201.978	46	9.291	-	-	-	201.978	46	9.291			
CBRN DRS Navy Configuration <sup>(†)</sup>	-	-	0.000	421.190	42	17.690	369.978	45	16.649	-	-	0.000	-	-	-	-	-	0.000			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020													
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness									<b>Item Number / Title [DODIC]:</b> MC0101 / CBRN DISMOUNTED RECONNAISSANCE SYSTEMS (CBRN DRS)													
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>													
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																										
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>										
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>								
SYSTEM ENHANCEMENT PACKAGES (SEP) - SEP - Variant Package 1 <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	10.000	160	1.600	-	-	-	10.000	160	1.600								
<i>Subtotal: Recurring Cost</i>	-	-	160.086	-	-	70.077	-	-	40.459	-	-	27.665	-	-	-	-	-	27.665								
<i>Subtotal: Hardware Cost</i>	-	-	<b>160.086</b>	-	-	<b>70.077</b>	-	-	<b>40.459</b>	-	-	<b>27.665</b>	-	-	-	-	-	<b>27.665</b>								
Logistics Cost																										
Recurring Cost																										
CBRN DRS Contractor Logistics Support (SWA systems - VCA)	-	-	0.000	-	-	0.702	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000								
CBRN DRS 1 - CBRN DRS Acquisition Logistics Product Support (TACOM)	-	-	0.000	-	-	1.452	-	-	0.500	-	-	0.600	-	-	-	-	-	0.600								
CBRN DRS Logistics/ Sustainment Support (PBA)	-	-	0.000	-	-	3.210	-	-	2.000	-	-	2.000	-	-	-	-	-	2.000								
CBRN DRS Contractor Logistics Support (CACI)	-	-	0.000	-	-	0.800	-	-	0.750	-	-	1.400	-	-	-	-	-	1.400								
CBRN DRS Contractor Logistics Support (Leidos)	-	-	0.000	-	-	1.581	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000								
CBRN DRS Initial Spares	-	-	0.000	-	-	1.710	-	-	1.750	-	-	1.750	-	-	-	-	-	1.750								
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>9.455</b>	-	-	<b>5.000</b>	-	-	<b>5.750</b>	-	-	-	-	-	<b>5.750</b>								
<i>Subtotal: Logistics Cost</i>	-	-	<b>0.000</b>	-	-	<b>9.455</b>	-	-	<b>5.000</b>	-	-	<b>5.750</b>	-	-	-	-	-	<b>5.750</b>								
Support Cost																										
CBRN DRS Fielding Support (NET Team Gov't JPM/TACOM)	-	-	0.000	-	-	1.572	-	-	1.245	-	-	1.250	-	-	-	-	-	1.250								
CBRN DRS Purchase Training Support/ILS Package/GFE updates	-	-	0.000	-	-	3.591	-	-	0.240	-	-	1.600	-	-	-	-	-	1.600								
CBRN DRS Contractor Fielding Support	-	-	0.000	-	-	1.187	-	-	1.177	-	-	1.180	-	-	-	-	-	1.180								

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020													
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness									<b>Item Number / Title [DODIC]:</b> MC0101 / CBRN DISMOUNTED RECONNAISSANCE SYSTEMS (CBRN DRS)													
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>													
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																										
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>										
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>								
CBRN DRS Product & Team Support	-	-	0.000	-	-	1.783	-	-	2.500	-	-	2.500	-	-	-	-	-	2.500								
CBRN DRS Government Management Services	-	-	0.000	-	-	4.981	-	-	5.566	-	-	5.568	-	-	-	-	-	5.568								
CBRN DRS Production Engineering Support (FLIR)	-	-	0.000	-	-	2.357	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000								
CBRN DRS Fielding Support (MSCoE)	-	-	0.000	-	-	0.656	-	-	0.600	-	-	0.650	-	-	-	-	-	0.650								
CBRN DRS Engineering Support	-	-	0.000	-	-	2.572	-	-	1.233	-	-	1.230	-	-	-	-	-	1.230								
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>18.699</b>	-	-	<b>12.561</b>	-	-	<b>13.978</b>	-	-	-	-	-	<b>13.978</b>								
<b>Gross/Weapon System Cost</b>	-	-	<b>160.086</b>	-	-	<b>98.231</b>	-	-	<b>58.020</b>	-	-	<b>47.393</b>	-	-	-	-	-	<b>47.393</b>								

**Remarks:**

The Chemical, Biological, Radiological, and Nuclear Dismounted Reconnaissance System (CBRN DRS) provides CBRN Warfighters with a comprehensive suite of protection, detection, identification, sample collection, hazard marking, decontamination, and other support capabilities for use during dismounted reconnaissance and sensitive site assessment missions. The Warfighter will use the CBRN DRS respiratory and percutaneous protection to prevent potential contamination while conducting assessment and exploitation operations. The Warfighters will use the CBRN DRS sensor capabilities to find CBRN and toxic industrial hazards for marking and sampling with other capabilities in the system. Warfighters will also use the decontamination kit to remove contamination from personnel and equipment.

Justification: FY21 funds procure 46 CBRN DRS for the Air Force, 20 Explosive Ordnance Disposal Teams (EOD TMS) for the Marine Corps, and 160 System Enhancement Packages (Variant #1), as well as fielding, engineering, program management, and logistics support.

P5: EOD users will use the system to assess ordnance and improvised explosive devices during render safe operations.

Advancing threats and current capability gaps in sensitive site exploitation capability require a System Enhancement Package (SEP) to the baseline DR SKO systems. Starting in FY21, the SEP effort will produce capability to meet updated requirements to support advancing threats and capability gaps in sensitive site exploitation. Individual sets will be identified and incorporated into the CBRN DRS as engineering change proposals to the base kit. SEPv1 will provide an Improved Biological Detection Set (IBDS). SEP v2 will provide an Improved Protection and Power Set (IPPS). SEP v3 will provide an Improved Chemical Detection Kit. SEP v4 will provide a kit of situational awareness/decision support enhancements called the CBRN Dismounted Tactical Awareness Kit (CBRN DTAK). CBRN DRS systems will be produced at government production facilities. The SEP packages will be configured, produced, and fielded in accordance with priorities and needs of the Services.

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program									<b>Date:</b> February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness					Item Number / Title [DODIC]: MC0101 / CBRN DISMOUNTED RECONNAISSANCE SYSTEMS (CBRN DRS)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
CBRN DRS Army Configuration		2019	FLIR Systems Inc. / Elkridge, MD	C / FFP	RDECOM, Edgewood, MD	Dec 2018 <sup>(3)</sup>	May 2019	24	1,166.250	Y		
MARINE CORPS EOD - CBRN DRS USMC EOD MUE Teams		2019	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Dec 2018	Aug 2019	7	1,194.000	Y		
MARINE CORPS EOD - CBRN DRS USMC EOD MARSOC Teams Configuration		2019	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Dec 2018	Aug 2019	5	1,202.600	Y		
MARINE CORPS EOD - CBRN DRS USMC EOD MARSOC Teams Configuration		2020	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2019	Mar 2020	14	1,000.357	Y		
MARINE CORPS EOD - CBRN DRS USMC EOD Teams (Explosive Ordnance Disposal Teams) Configuration <sup>(†)</sup>		2021	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2020	Sep 2021	20	838.700	Y		
CBRN DRS Air Force Configuration <sup>(†)</sup>		2019	Pine Bluff Arsenal (B) / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2018	Sep 2019	40	250.650	Y		
CBRN DRS Air Force Configuration <sup>(†)</sup>		2020	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2019	May 2020	50	196.100	Y		
CBRN DRS Air Force Configuration <sup>(†)</sup>		2021	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2020	Aug 2021	46	250.652	Y		
CBRN DRS Navy Configuration		2019	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2018	Apr 2019	42	421.190	Y		
CBRN DRS Navy Configuration		2020	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2019	May 2020	45	369.978	Y		
SYSTEM ENHANCEMENT PACKAGES (SEP) - SEP - Variant Package 1		2021	TBD / N/A	C / FFP	Tooele, UT	May 2021	Jul 2021	160	10.000	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Footnotes:**

<sup>(3)</sup> (Option)

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																					Date: February 2020																																																																																																																																																																																																																																																																																																																																																																																						
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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1				P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness						Item Number / Title [DODIC]: MC0101 / CBRN DISMOUNTED RECONNAISSANCE SYSTEMS (CBRN DRS)			
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Pine Bluff Arsenal - Pine Bluff, AR	1	6	24	0	5	3	8	0	1	4		5
2	Pine Bluff Arsenal - Pine Bluff, AR	1	6	24	0	5	3	8	0	1	4		5
3	Pine Bluff Arsenal (B) - Pine Bluff, AR	1	6	24	4	3	5	8	0	3	5		8

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020								
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> SA0003 / ENHANCED MARITIME BIOLOGICAL DETECTION (EMBD)								
ID Code (A=Service Ready, B=Not Service Ready) : B													MDAP/MAIS Code:								
<b>Resource Summary</b>			<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>							
Procurement Quantity ( <i>Units in Each</i> )						-		-		-		-		-							
Gross/Weapon System Cost (\$ in Millions)						0.000		0.000		15.243		20.762		-		20.762					
Less PY Advance Procurement (\$ in Millions)						-		-		-		-		-		-					
Net Procurement (P-1) (\$ in Millions)						0.000		0.000		15.243		20.762		-		20.762					
Plus CY Advance Procurement (\$ in Millions)						-		-		-		-		-		-					
<b>Total Obligation Authority</b> (\$ in Millions)						<b>0.000</b>		<b>0.000</b>		<b>15.243</b>		<b>20.762</b>		<b>-</b>		<b>20.762</b>					
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares (\$ in Millions)						-		-		-		-		-		-					
Gross/Weapon System Unit Cost (\$ in Thousands)						-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)			
Hardware Cost																					
Recurring Cost																					
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
EMBD FRP Hardware Production <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	325.000	28	9.100	-	-	-	325.000	28	9.100			
EMBD LRIP Hardware Production <sup>(†)</sup>	-	-	0.000	-	-	0.000	450.000	10	4.500	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>4.500</i>	-	-	<i>9.100</i>	-	-	-	-	-	<i>9.100</i>			
<i>Subtotal: Hardware Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>4.500</i>	-	-	<i>9.100</i>	-	-	-	-	-	<i>9.100</i>			
Software Cost																					
Recurring Cost																					
EMBD Configuration Management	-	-	0.000	-	-	0.000	-	-	0.750	-	-	0.350	-	-	-	-	-	0.350			
EMBD Software Support	-	-	0.000	-	-	0.000	-	-	0.325	-	-	0.175	-	-	-	-	-	0.175			
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>1.075</i>	-	-	<i>0.525</i>	-	-	-	-	-	<i>0.525</i>			
<i>Subtotal: Software Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>1.075</i>	-	-	<i>0.525</i>	-	-	-	-	-	<i>0.525</i>			
Package Fielding Cost																					
Recurring Cost																					
EMBD Initial Fielding Packages <sup>(†)</sup>	-	-	0.000	-	-	0.000	115.000	10	1.150	110.000	28	3.080	-	-	-	110.000	28	3.080			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> SA0003 / ENHANCED MARITIME BIOLOGICAL DETECTION (EMBD)														
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																											
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>											
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)									
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	1.150	-	-	3.080	-	-	-	-	-	3.080									
<i>Subtotal: Package Fielding Cost</i>	-	-	0.000	-	-	0.000	-	-	1.150	-	-	3.080	-	-	-	-	-	3.080									
Logistics Cost																											
Recurring Cost																											
EMBD Logistics Support	-	-	0.000	-	-	0.000	-	-	1.500	-	-	1.200	-	-	-	-	-	1.200									
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	1.500	-	-	1.200	-	-	-	-	-	1.200									
<i>Subtotal: Logistics Cost</i>	-	-	0.000	-	-	0.000	-	-	1.500	-	-	1.200	-	-	-	-	-	1.200									
Support Cost																											
EMBD Production Contractor Engineering & Management	-	-	0.000	-	-	0.000	-	-	3.542	-	-	3.629	-	-	-	-	-	3.629									
EMBD Government Engineering and System Support	-	-	0.000	-	-	0.000	-	-	1.492	-	-	1.250	-	-	-	-	-	1.250									
EMBD Government Management Services	-	-	0.000	-	-	0.000	-	-	1.984	-	-	1.978	-	-	-	-	-	1.978									
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.000	-	-	7.018	-	-	6.857	-	-	-	-	-	6.857									
<b>Gross/Weapon System Cost</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>15.243</b>	-	-	<b>20.762</b>	-	-	-	-	-	<b>20.762</b>									
<b>Remarks:</b>																											
Enhanced Maritime Biological Detection (EMBD) is a technology refresh to the Joint Biological Point Detection System (JBPD) and provides improved detection capabilities, decreases operational costs while increasing reliability and maintainability. EMBD will provide an improved computer architecture to mitigate future obsolescence in both hardware and software. EMBD is an automated system that rapidly detects, collects and identifies airborne Biological Warfare Agent (BWA) assessed to pose a threat to the Navy. The Capability Production Document (CPD) requires integration of the EMBD on Navy ships and EMBD interoperability with the Navy's command and control infrastructure. EMBD consists of Line Replaceable Units (LRUs) that perform the following core biological defense functions: detection (Rapid Agent Aerosol Detector [RAAD]), collection (Wetted Wall Cyclone (WWC) Collector), identification (Lateral Flow Immunoassay Identifier), sample handling (Fluid Transfer System (FTS)) and a local user interface (Computing and Control Subsystem [CCS]).																											
Justification: FY21 funds procure 28 Full Rate Production (FRP) systems for fielding, production support, logistics support and initial fielding packages.																											
<b>DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES</b>																											
EMBD - EMD Contract Award: Jul 2018 EMBD - MS C: Apr 2020																											

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> SA0003 / ENHANCED MARITIME BIOLOGICAL DETECTION (EMBD)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
EMBD - LRIP Contract Award: May 2020 EMBD - OT&E (Jun 2020 to Jul 2020) EMBD - FRP Decision: Mar 2021 EMBD - FRP Production (Mar 2021 to Jun 2027) EMBD - IOC: Sep 2022 EMBD - FOC: Sep 2028 EMBD - Developmental Test (Nov 2019 to Apr 2019)		

P5: LRIP is an option on the EMD Contract.

(†) indicates the presence of a P-5a

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness					<b>Item Number / Title [DODIC]:</b> SA0003 / ENHANCED MARITIME BIOLOGICAL DETECTION (EMBD)					
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>		<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$ K)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
EMBD FRP Hardware Production <sup>(†)</sup>		2021	TBD / N/A		C / CPFF	TBD	Apr 2021	Jun 2022	28	325.000	Y		
EMBD LRIP Hardware Production		2020	Chemring Detection Systems / Charlotte, NC		C / FPIF	ACC, APG, MD	May 2020 <sup>(4)</sup>	Jul 2021	10	450.000	Y		
EMBD Initial Fielding Packages		2020	Chemring Detection Systems / Charlotte, NC		C / FPIF	ACC, APG, MD	May 2020	Jul 2021	10	115.000	Y		
EMBD Initial Fielding Packages		2021	TBD / N/A		C / CPFF	TBD	Apr 2021	Jun 2022	28	110.000	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Footnotes:**

<sup>(4)</sup> (Option)

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																			Date: February 2020													
Appropriation / Budget Activity / Budget Sub Activity: 03000D / 03 / 1										P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness										Item Number / Title [DODIC]: SA0003 / ENHANCED MARITIME BIOLOGICAL DETECTION (EMBD)												
Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												B A L A N C E	
O C O #	M F R Y	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
EMBD FRP Hardware Production																																
Secondary Distribution	1	2021	CBDP	28	0	28													A -	-	-	-	-	-	-	-	-	-	-	28		
	NAVY		28	0	28														A -	-	-	-	-	-	-	-	-	-	-	28		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																			Date: February 2020												
Appropriation / Budget Activity / Budget Sub Activity:							P-1 Line Item Number / Title:												Item Number / Title [DODIC]:												
0300D / 03 / 1							7001SA1000 / Chemical Biological Situational Awareness												SA0003 / ENHANCED MARITIME BIOLOGICAL DETECTION (EMBD)												
Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												
O C O #	M F R	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022												Calendar Year 2023												
O C O #	M F R	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BALANCE
EMBD FRP Hardware Production																											0				
1	2021	CBDP	28	0	28	-	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0		
Secondary Distribution		NAVY	28	0	28	-	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0		
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness						Item Number / Title [DODIC]: SA0003 / ENHANCED MARITIME BIOLOGICAL DETECTION (EMBD)				
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder				
1	TBD - N/A	4	4	10	0	6	14	20	0	3	14	17	

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
 "A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness								<b>Item Number / Title [DODIC]:</b> SA0005 / CBRN SENSOR INTEGRATION ON ROBOTIC PLATFORMS (CSIRP)							
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B												<b>MDAP/MAIS Code:</b>							
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							0.000		0.000		1.747		0.503		-		0.503		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							0.000		0.000		1.747		0.503		-		0.503		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							0.000		0.000		1.747		0.503		-		0.503		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	
Hardware Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
CSIRP Hardware(t)	-	-	0.000	-	-	0.000	29.116	43	1.252	29.333	15	0.440	-	-	-	29.333	15	0.440	
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	1.252	-	-	0.440	-	-	-	-	-	0.440	
<i>Subtotal: Hardware Cost</i>	-	-	0.000	-	-	0.000	-	-	1.252	-	-	0.440	-	-	-	-	-	0.440	
Support Cost																			
Program Management	-	-	0.000	-	-	0.000	-	-	0.495	-	-	0.063	-	-	-	-	-	0.063	
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.000	-	-	0.495	-	-	0.063	-	-	-	-	-	0.063	
<b>Gross/Weapon System Cost</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>1.747</b>	-	-	<b>0.503</b>	-	-	-	-	-	<b>0.503</b>	
<b>Remarks:</b>																			
Chemical, Biological, Radiological, and Nuclear (CBRN) Sensor Integration on Robotic Platforms (CSIRP) is a rapid prototyping and fielding effort started in FY19 that has focused on small scale purchase of CBRN sensors for use with service identified unmanned platforms in the field. It is Integrating modular CBRN sensor solutions to enhance Service Unmanned Air and Ground Systems Programs of Record (PORs). CSIRP sensors will provide situational awareness across the echelons of command in order to enable freedom of maneuver and action on the battlefield. An integrated CSIRP capability will exploit advances in machine learning and autonomy for greater propulsion, sensing and communication capabilities that enable timely and accurate detection, warning and reporting of CBRN hazards for increased risk reduction opportunities at tactical and operational echelons in mounted and dismounted configurations. With accelerating advances in Robotic and Autonomous Systems (RAS) technologies, CSIRP will give the Joint Force a tremendous opportunity to enhance capabilities and maintain operational advantage in an increasingly lethal and sophisticated operating environment. CSIRP is using a spiral development concept																			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> SA0005 / CBRN SENSOR INTEGRATION ON ROBOTIC PLATFORMS (CSIRP)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
to buy-try-decide as it provides CBRN capability sets to the warfighters unmanned platforms. Different platforms have size, weight and power constraints which will require repackaging of CBRN systems under development as they mature.		
Justification: FY21 funding procures fifteen (15) commercial off the shelf (COTS) Short Range UAV Platform prototypes for evaluation headed into the next Other Transactional Authority (OTA) development phase for Prototype Plan #2.		
RDT&E Code B Item: 0603884BP/Proj CA4; 0604384BP/Proj CA5		
CA4/CSIRP: RDT&E ; FY2019 - 4.804 Million; FY2020 - 7.987 Million; FY2021 - 4.061 Million; FY2022 - 4.178 Million; FY2023 - 6.205 Million; FY2024 - 5.337 Million; FY2025 - 7.017 Million CA5/CSIRP: RDT&E ; FY2021 - 11.251 Million; FY2022 - 12.121 Million; FY2023 - 13.571 Million; FY2024 - 13.227 Million; FY2025 - 12.417 Million DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES		
CSIRP - OTA Request For Information (Sep 2018 to Oct 2018) CSIRP - Materiel Development Decision: Apr 2019 CSIRP - Request for White Papers - Prototyping Plan #1 (Jan 2019 to Feb 2019) CSIRP - OTA Award for Prototyping Plan #1: Aug 2019 CSIRP - Test and Evaluation of Prototypes - Prototyping Plan #1 (Jan 2020 to Jul 2021) CSIRP - Demonstration and Transition Decision - Prototyping Plan #1 (Aug 2021 to Sep 2021) CSIRP - Request for White Papers - Prototyping Plan #2: Feb 2020 CSIRP - OTA Award for Prototyping Plan #2: Jan 2021 CSIRP - Test and Evaluation of Prototypes - Prototyping Plan #2 (Apr 2021 to Aug 2022) CSIRP - Demonstration and Transition Decision - Prototyping Plan #2 (Oct 2022 to Nov 2022) CSIRP - Prototyping Plan #3 (Sep 2022 to Sep 2024)		
P5: Other Transactional Authority (OTA) for development and production of prototype capabilities and hardware for integration on Joint Services unmanned platform programs of record.		
(†) indicates the presence of a P-5a		

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program									<b>Date:</b> February 2020			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness						<b>Item Number / Title [DODIC]:</b> SA0005 / CBRN SENSOR INTEGRATION ON ROBOTIC PLATFORMS (CSIRP)			
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
CSIRP Hardware		2020	Various / UNKNOWN	C / FFP	ACC, NJ	Jul 2020	Oct 2020	43	29.116	Y		
CSIRP Hardware		2021	Various / UNKNOWN	C / FFP	ACC, NJ	Feb 2021	Apr 2021	15	29.333	Y		

**Remarks:**

Production contract(s) will be awarded as follow-on to OTA awarded in FY19.

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness									<b>Item Number / Title [DODIC]:</b> SA0006 / CBRN INFORMATION SYSTEMS (CBRN IS)						
ID Code (A=Service Ready, B=Not Service Ready) : B													MDAP/MAIS Code:						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							0.963		0.753		0.276		0.512		-		0.512		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							0.963		0.753		0.276		0.512		-		0.512		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							<b>0.963</b>		<b>0.753</b>		<b>0.276</b>		<b>0.512</b>		<b>-</b>		<b>0.512</b>		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	
Software Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	0.963	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
Technical and Engineering Support	-	-	0.000	-	-	0.753	-	-	0.276	-	-	0.512	-	-	-	-	-	0.512	
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.963</b>	-	-	<b>0.753</b>	-	-	<b>0.276</b>	-	-	<b>0.512</b>	-	-	-	-	-	<b>0.512</b>	
<i>Subtotal: Software Cost</i>	-	-	<b>0.963</b>	-	-	<b>0.753</b>	-	-	<b>0.276</b>	-	-	<b>0.512</b>	-	-	-	-	-	<b>0.512</b>	
<b>Gross/Weapon System Cost</b>	-	-	<b>0.963</b>	-	-	<b>0.753</b>	-	-	<b>0.276</b>	-	-	<b>0.512</b>	-	-	-	-	-	<b>0.512</b>	
<b>Remarks:</b>																			
Chemical Biological Radiological and Nuclear Information Systems (CBRN IS) aligns Chemical Biological Radiological and Nuclear Defense (CBRND) information technologies, capability sets and applications in order to utilize a common software architecture, eliminate duplicative integration effort, produce interoperable system components, and minimize time-to-market of end user capability. CBRN IS provides the Joint warfighter, CBRN community of interest and international partners a collaborative Cloud hosted environment that allows users to collect and disseminate CBRN warning and reporting data, provide detailed CBRN hazard predictions, aid in decision support, and make relevant CBRN defense information available in near-real time. CBRN IS provides an environment that supports the implementation of Integrated Early Warning (IEW) capabilities that allow users to access netted sensor information, data fusion, disease modeling, biosurveillance data, source term estimation data, incident management tools, and planning and analysis capabilities. The CBRN IS enterprise makes CBRN decision aids readily accessible from any desktop through a web browser simplifying interoperability, reducing integration and deployment costs and increases cybersecurity protection.																			
Justification: FY21 supports the continued deployment, technical and engineering support cost associated with hosting CBRN IS on milCloud in support of worldwide accessibility for the warfighter.																			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> SA0006 / CBRN INFORMATION SYSTEMS (CBRN IS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
RDT&E Code B Item: 0604384BP/Proj IS5; 0607384BP/Proj IS7  IS5/CBRN IS: RDT&E FY2018 and Prior - 8.440Million; FY2019 - 2.477 Million; FY2020 - 2.500 Million; FY2021 - 3.131 Million; FY2022 - 2.809 Million; FY2023 - 2.385 Million; FY2024 - 2.384 Million; FY2025 - 2.504 Million IS7/CBRN IS: RDT&E FY2018 and Prior - 0.420Million; FY2019 - 2.259 Million; FY2020 - 1.841 Million; FY2021 - 2.057 Million; FY2022 - 2.449 Million		
DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES  CBRN IS - Product Development (Oct 2018 to Sep 2025) CBRN IS - Operational Assessments (Oct 2018 to Sep 2025) CBRN IS - Developmental Test (Sep 2019 to Sep 2025) CBRN IS - Total Package Fielding (Oct 2018 to Sep 2022)		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness												<b>Item Number / Title [DODIC]:</b> SA0009 / MOUNTED MANNED PLATFORM RADIOLOGICAL DETECTION SYSTEM (MMPRDS)				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A												<b>MDAP/MAIS Code:</b>							
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							0.000		0.000		1.622		0.000		-		0.000		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							0.000		0.000		1.622		0.000		-		0.000		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							0.000		0.000		1.622		0.000		-		0.000		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	
Hardware Cost																			
Non Recurring Cost																			
MMPRDS - MERLIN Hardware <sup>(†)</sup>	-	-	0.000	-	-	0.000	219.600	5	1.098	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Non Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	1.098	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Hardware Cost</i>	-	-	0.000	-	-	0.000	-	-	1.098	-	-	0.000	-	-	-	-	-	0.000	
Package Fielding Cost																			
Non Recurring Cost																			
MMPRDS - Fielding Cost	-	-	0.000	-	-	0.000	-	-	0.265	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Non Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	0.265	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Package Fielding Cost</i>	-	-	0.000	-	-	0.000	-	-	0.265	-	-	0.000	-	-	-	-	-	0.000	
Support Cost																			
MMPRDS - Program Management	-	-	0.000	-	-	0.000	-	-	0.259	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.000	-	-	0.259	-	-	0.000	-	-	-	-	-	0.000	
<i>Gross/Weapon System Cost</i>	-	-	0.000	-	-	0.000	-	-	1.622	-	-	0.000	-	-	-	-	-	0.000	

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> SA0009 / MOUNTED MANNED PLATFORM RADIOLOGICAL DETECTION SYSTEM (MMPRDS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<b>Remarks:</b> The Mounted Manned Platform Radiological Detection Systems (MMPRDS) program includes Mounted Enhanced Radiac Long Range Imaging Networkable (MERLIN) technology packages transitioned from the Defense Threat Reduction Agency (DTRA). MERLIN is a set of externally mounted standoff sensors that support joint radiological/nuclear reconnaissance and surveillance operations. The MMPRDS program will sunset in FY20 and transition to a separate line of effort for MERLIN (Item Number SA0046) beginning in FY21. FY20 Procurement procured 5 MERLINS under the sensor's Countering Weapons of Mass Destruction (CWMD) Other Transaction Authority (OTA) agreement. Production systems supported production verification testing (PVT) and rapid/initial fielding to Stryker Nuclear Biological and Chemical Reconnaissance Vehicles (NBCRV) units via modification work order (MWO) and conditional materiel release. MERLIN-outfitted NBCRVs will receive a preliminary upgrade of their legacy mounted radiological/nuclear sensor payload prior to receiving vehicle-wide Joint Nuclear Biological and Chemical Reconnaissance Systems (JNBRS) sensor suite upgrade.		

(†) indicates the presence of a P-5a

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness					<b>Item Number / Title [DODIC]:</b> SA0009 / MOUNTED MANNED PLATFORM RADIOLOGICAL DETECTION SYSTEM (MMPRDS)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
MMPRDS - MERLIN Hardware		2020	H3D INC / Ann Arbor, MI	C / CPFF	ACC, APG, MD	Oct 2019	Feb 2020	5	219.600	N		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> SA0046 / MOUNTED ENHANCED RADIAC LONG RANGE IMAGING NETWORKABLE (MERLIN)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B													<b>MDAP/MAIS Code:</b>					
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>			
Procurement Quantity ( <i>Units in Each</i> )																		
Gross/Weapon System Cost (\$ in Millions)							0.000		0.000		0.000		1.246				1.246	
Less PY Advance Procurement (\$ in Millions)							-		-		-		-				-	
Net Procurement (P-1) (\$ in Millions)							0.000		0.000		0.000		1.246				1.246	
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-				-	
<b>Total Obligation Authority</b> (\$ in Millions)							0.000		0.000		0.000		1.246				1.246	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																		
Initial Spares (\$ in Millions)							-		-		-		-				-	
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-				-	
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
MERLIN Hardware <sup>(t)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	219.200	5	1.096	-	-	-	219.200	5	1.096
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.096	-	-	-	-	-	1.096
<i>Subtotal: Hardware Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.096	-	-	-	-	-	1.096
Support Cost																		
MERLIN Program Management	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.150	-	-	-	-	-	0.150
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.150	-	-	-	-	-	0.150
Gross/Weapon System Cost	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.246	-	-	-	-	-	1.246
<b>Remarks:</b>																		
The Mounted Enhanced Radiac Long Range Imaging Networkable (MERLIN) is a set of externally mounted standoff sensors that support joint radiological/nuclear reconnaissance and surveillance operations. The MERLIN sensor was initially developed for the Stryker Nuclear Biological and Chemical Reconnaissance Vehicles (NBCRV) sensor suite upgrade under the Mounted Manned Platform Radiological Detection Systems (MMPRDS) program (Item Number SA0009). In FY21, MERLIN is transitioning from the MMPRDS program to a separate line of effort.																		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> SA0046 / MOUNTED ENHANCED RADIAC LONG RANGE IMAGING NETWORKABLE (MERLIN)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
Justification: FY21 Procurement procures five (5) MERLIN sensors to support sensor-level production, integration, and fielding for the Joint Nuclear Biological and Chemical Reconnaissance Systems (JNBCRS) sensor suite upgrade.		
RDT&E Code B Item: 0604384BP/Proj CA5  CA5/MERLIN: RDT&E ; FY2021 - 1.294 Million; FY2022 - 3.346 Million		
DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES  MERLIN - Army Platform Integration OTA: Oct 2020 MERLIN - Army Platform Full Materiel Release: Aug 2022		
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program									<b>Date:</b> February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness					Item Number / Title [DODIC]: SA0046 / MOUNTED ENHANCED RADIAC LONG RANGE IMAGING NETWORKABLE (MERLIN)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
MERLIN Hardware		2021	TBD / N/A	C / CPFF	Aberdeen Proving Ground, MD	Oct 2020	Feb 2021	5	219.200	Y		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness										<b>Item Number / Title [DODIC]:</b> SA0011 / RADIOLOGICAL DETECTION SYSTEM (RDS)						
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							0.000		0.000		4.065		0.000		-		0.000		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							0.000		0.000		4.065		0.000		-		0.000		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							<b>0.000</b>		<b>0.000</b>		<b>4.065</b>		<b>0.000</b>		<b>-</b>		<b>0.000</b>		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	
Hardware Cost																			
Recurring Cost																			
JPEO/JPM SENSORS Assessment	-	-	0.000	-	-	0.000	-	-	0.485	-	-	0.000	-	-	-	-	-	0.000	
RDS Hardware Army Config 2 <sup>(†)</sup>	-	-	0.000	-	-	0.000	20.517	143	2.934	-	-	0.000	-	-	-	-	-	0.000	
RDS - New Equipment Training USMC <sup>(†)</sup>	-	-	0.000	-	-	0.000	4.000	2	0.008	-	-	0.000	-	-	-	-	-	0.000	
RDS Hardware USMC Config 2 <sup>(†)</sup>	-	-	0.000	-	-	0.000	15.143	21	0.318	-	-	0.000	-	-	-	-	-	0.000	
RDS - Sensor Network AdaPtor (SNAP) Cable USMC <sup>(†)</sup>	-	-	0.000	-	-	0.000	0.350	20	0.007	-	-	0.000	-	-	-	-	-	0.000	
RDS Hardware USMC Config 3 <sup>(†)</sup>	-	-	0.000	-	-	0.000	18.412	17	0.313	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>4.065</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>	
<i>Subtotal: Hardware Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>4.065</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>	
<b>Gross/Weapon System Cost</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>4.065</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>	
Remarks:																			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> SA0011 / RADIOLOGICAL DETECTION SYSTEM (RDS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
The Radiological Detection System (RDS) is the first joint solution to provide the Warfighter with the net-ready capability to measure alpha, beta, gamma, neutron, and low energy x-rays. It replaces DoD's legacy RADIAC survey meters (AN/PDR-77, VDR-2, MFR Suite, and ADM-300). The RDS will provide common units of measurement including both conventional and international system units and its open architecture design will enable upgrade of probes over system lifecycle, reducing life-cycle costs.		
Defense-Wide Review (DWR): The Chemical Biological Defense Program FY 2021 funding request was reduced by \$1.248 million to account for program being terminated.		
Note: RDS production will be resourced in FY21 from Service funding; Other Procurement, Army, Budget Activity 03: Other Support Equipment, \$11.301 million and Procurement, Defense Wide \$1.447 million.		
P5: Unit cost for the RDS varies due to the type and quantity of the configurations that are needed in that fiscal year.		
(†) indicates the presence of a P-5a		

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness					<b>Item Number / Title [DODIC]:</b> SA0011 / RADIOLOGICAL DETECTION SYSTEM (RDS)				
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$ K)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
RDS Hardware Army Config 2		2020	VPI / Draper, UT	SS / FPIF	Aberdeen Proving Ground, MD	Apr 2021	Nov 2021	143	20.517	Y		
RDS - New Equipment Training USMC		2020	VPI / Draper, UT	SS / FPIF	Aberdeen Proving Ground, MD	Apr 2021	Nov 2021	2	4.000	Y		
RDS Hardware USMC Config 2		2020	VPI / Draper, UT	SS / FPIF	Aberdeen Proving Ground, MD	Jun 2020	Dec 2020	21	15.143	Y		
RDS - Sensor Network AdaPtor (SNAP) Cable USMC		2020	VPI / Draper, UT	SS / FPIF	Aberdeen Proving Ground, MD	Jun 2021	Dec 2021	20	0.350	Y		
RDS Hardware USMC Config 3		2020	VPI / Draper, UT	SS / FPIF	Aberdeen Proving Ground, MD	Jun 2021	Dec 2021	17	18.412	Y		

**Remarks:**

Contract was competitively awarded to Visionary Products, Inc. (Draper, UT) in September 2016 for development with a FY19 LRIP procurement option and FY20-24 FRP options. The contract was awarded as an Indefinite Delivery/Indefinite Quantity (ID/IQ) with Options for the Low Rate Initial Production Contract and up to a 5-Year Full Rate Production Option. Contracting Office is USA Contracting Command- Aberdeen Proving Ground-W911SR, Edgewood Contracting Division. In FY21 and beyond, the Defense-Wide Review (DWR) reduced this program for higher priorities.

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020									
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness									<b>Item Number / Title [DODIC]:</b> SA0012 / JOINT PERSONNEL DOSIMETER-INDIVIDUAL (JPD-I)									
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A												<b>MDAP/MAIS Code:</b>									
<b>Resource Summary</b>			<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>							
Procurement Quantity ( <i>Units in Each</i> )						-		-		-		-		-							
Gross/Weapon System Cost (\$ in Millions)						0.000		5.000		4.957		0.000		-		0.000					
Less PY Advance Procurement (\$ in Millions)						-		-		-		-		-		-					
Net Procurement (P-1) (\$ in Millions)						0.000		5.000		4.957		0.000		-		0.000					
Plus CY Advance Procurement (\$ in Millions)						-		-		-		-		-		-					
<b>Total Obligation Authority</b> (\$ in Millions)						<b>0.000</b>		<b>5.000</b>		<b>4.957</b>		<b>0.000</b>		<b>-</b>		<b>0.000</b>					
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares (\$ in Millions)						-		-		-		-		-		-					
Gross/Weapon System Unit Cost (\$ in Thousands)						-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)			
Hardware Cost																					
Recurring Cost																					
JPD-I End Item(†)	-	-	0.000	0.238	14,687	3.500	0.324	10,192	3.307	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>3.500</i>	-	-	<i>3.307</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
<i>Subtotal: Hardware Cost</i>	-	-	<i>0.000</i>	-	-	<i>3.500</i>	-	-	<i>3.307</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
Package Fielding Cost																					
Recurring Cost																					
JPD-I - Fielding Support	-	-	0.000	-	-	0.308	-	-	0.630	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.308</i>	-	-	<i>0.630</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
<i>Subtotal: Package Fielding Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.308</i>	-	-	<i>0.630</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
Support Cost																					
JPD-I - Program Management and System Engineering	-	-	0.000	-	-	1.192	-	-	1.020	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Support Cost</i>	-	-	<i>0.000</i>	-	-	<i>1.192</i>	-	-	<i>1.020</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
<b>Gross/Weapon System Cost</b>	-	-	<b>0.000</b>	-	-	<b>5.000</b>	-	-	<b>4.957</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>			
<b>Remarks:</b>																					
The Joint Personal Dosimeter - Individual (JPD-I) will provide a sensor to record and retrieve a Service member's radiation exposure from occupational to tactical levels. This capability provides a Joint solution reducing life-cycle costs while also address lessons learned from Operation Tomodachi. JPD-I provides near-real time display of soldiers radiation exposure to support situational awareness.																					

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness	<b>Item Number / Title [DODIC]:</b> SA0012 / JOINT PERSONNEL DOSIMETER-INDIVIDUAL (JPD-I)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
Defense-Wide Review (DWR): The Chemical Biological Defense Program (CBDP) FY 2021 funding request was reduced by \$0.997 million to account for program being terminated.		
Note: FY19 CBDP funding was combined with \$30 million Army funding for the lowest possible economic order quantity unit cost. FY20 CBDP funding was combined with \$2 million Army funding resulting in a higher unit cost. Army will continue to resource JPD-I in FY21 under Other Procurement, Army, Budget Activity 03 for \$2 million.		
(†) indicates the presence of a P-5a		

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 7001SA1000 / Chemical Biological Situational Awareness					<b>Item Number / Title [DODIC]:</b> SA0012 / JOINT PERSONNEL DOSIMETER-INDIVIDUAL (JPD-I)				
<b>Cost Elements</b>	O C O	FY	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$ K)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
JPD-I End Item		2019	Mirion Technology / Smyrna, GA	SS / FFP	ACC, APG, MD	Aug 2019	Jun 2020	14,687	0.238	Y		
JPD-I End Item		2020	Mirion Technology / Smyrna, GA	SS / FFP	ACC, APG, MD	Jun 2020 <sup>(5)</sup>	Jan 2021	10,192	0.324	Y		
JPD-I End Item		2021	Mirion Technology / Smyrna, GA	SS / FFP	ACC, APG, MD	Jun 2021 <sup>(6)</sup>	Jan 2022	0	0.000	Y		

**Remarks:**

In FY21 and beyond, the Defense-Wide Review (DWR) reduced this program for higher priorities.

**Footnotes:**

<sup>(5)</sup> Option

<sup>(6)</sup> Option

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<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2021 Chemical and Biological Defense Program										<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D: Procurement, Defense-Wide / BA 03: Chemical/Biological Defense / BSA 1: CBDP					<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation										
<b>ID Code</b> (A=Service Ready, B=Not Service Ready):			<b>Program Elements for Code B Items:</b> N/A					<b>Other Related Program Elements:</b> N/A							
<b>Line Item MDAP/MAIS Code:</b> N/A															
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>To Complete</b>	<b>Total</b>			
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-			
Gross/Weapon System Cost (\$ in Millions)	274.665	142.519	181.918	149.944	-	149.944	220.461	222.794	242.173	240.418	0.000	1,674.892			
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
Net Procurement (P-1) (\$ in Millions)	274.665	142.519	181.918	149.944	-	149.944	220.461	222.794	242.173	240.418	0.000	1,674.892			
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
<b>Total Obligation Authority (\$ in Millions)</b>	<b>274.665</b>	<b>142.519</b>	<b>181.918</b>	<b>149.944</b>	<b>-</b>	<b>149.944</b>	<b>220.461</b>	<b>222.794</b>	<b>242.173</b>	<b>240.418</b>	<b>0.000</b>	<b>1,674.892</b>			
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>															
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-			
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-			
<b>Description:</b> Enable the Warfighter to deter, prevent, protect against, mitigate, respond to, and recover from chemical, biological, radiological, and nuclear (CBRN) threats and effects as part of an integrated and layered defense. Protection and Hazard Mitigation provides the Warfighter with Individual and Collective Protection, capabilities for Materiel and Personnel Contamination Mitigation as well as medical countermeasures against the effects of CBRN hazards. The efforts within this BLIN continue to protect against and mitigate CBRN hazard threats from State and non-State actors.															

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Exhibit P-40, Budget Line Item Justification: PB 2021 Chemical and Biological Defense Program								Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity:				P-1 Line Item Number / Title:					
0300D: Procurement, Defense-Wide / BA 03: Chemical/Biological Defense / BSA 1: CBDP				8001PH1000 / CB Protection & Hazard Mitigation					
ID Code (A=Service Ready, B=Not Service Ready):			Program Elements for Code B Items: N/A				Other Related Program Elements: N/A		
<b>Line Item MDAP/MAIS Code:</b> N/A									
Exhibits Schedule				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	JD0050 / DECONTAMINATION FAMILY OF SYSTEMS (DFoS)	P-5a	B		- / 13.002	- / 16.384	- / 17.050	- / 10.804	- / -
P-5	JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)	P-5a	B		- / 0.917	- / 0.000	- / 24.609	- / 3.404	- / -
P-5	JD0404 / CONTAMINATED HUMAN REMAINS SYSTEM (CHRS)	P-5a	B		- / 0.000	- / 0.000	- / 2.107	- / 3.379	- / -
P-5	JI0002 / JS AIRCREW MASK (JSAM)	P-5a, P-21	B		- / 46.080	- / 50.214	- / 56.846	- / 72.550	- / -
P-5	JI0003 / JOINT SERVICE GENERAL PURPOSE MASK (JSGPM)	P-5a, P-21	A		- / 126.225	- / 18.359	- / 13.209	- / 22.402	- / -
P-5	JM6677 / ADVANCED ANTICONVULSANT SYSTEM (AAS)		B		- / 0.000	- / 0.000	- / 3.152	- / 0.000	- / -
P-5	JP1111 / JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECP)	P-5a, P-21	B		- / 23.805	- / 24.552	- / 13.570	- / 14.496	- / -
P-5	JP1112 / CHEMICAL BIOLOGICAL AIRCRAFT SURVIVABILITY BARRIER (CASB)	P-5a, P-21	B		- / 0.000	- / 0.750	- / 5.040	- / 8.243	- / -
P-5	JX0005 / DOD BIOLOGICAL VACCINE PROCUREMENT (VACCINES)		B		- / 0.368	- / 0.183	- / 0.173	- / 0.000	- / -
P-5	MA0400 / PROTECTIVE CLOTHING (JSLIST)	P-5a	A		- / 5.000	- / 2.140	- / 2.000	- / 0.000	- / -
P-5	MA0401 / CBRN UNIFORM INTEGRATED PROTECTION ENSEMBLE (UIPE)	P-5a	A		- / 26.107	- / 12.264	- / 14.984	- / 1.492	- / -
P-5	PHM008 / CBRN UNIFORM INGRD PRTCTN ENSEMBLE FAMILY OF SYSTEMS (UIPE FOS)	P-5a	B		- / 0.000	- / 0.000	- / 1.946	- / 0.000	- / -
P-5	PHM033 / UNIFORM INTEGRATED PROTECTIVE ENSEMBLE GENERAL PURPOSE (UIPE FOS GP)	P-5a	B		- / 0.000	- / 0.000	- / 0.000	- / 1.543	- / -
P-5	PHM034 / UNIFORM INTEGRATED PROTECTION ENSEMBLE FOS AIR (UIPE FOS AIR)	P-5a	B		- / 0.000	- / 0.000	- / 0.000	- / 4.786	- / -
P-5	PHM018 / SPU RAPID CAPABILITY DEVELOPMENT AND DEMO (SPU RCDD)	P-5a	B		- / 0.000	- / 0.000	- / 4.610	- / 5.965	- / -
P-5	PHM035 / MODERNIZATION DECONTAMINATION (MODPROT DE)	P-5a	A		- / 0.000	- / 0.000	- / 0.000	- / 0.880	- / -
P-5	R12301 / CB PROTECTIVE SHELTER (CBPS)	P-5a	A		- / 33.161	- / 17.673	- / 22.622	- / 0.000	- / -
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 274.665</b>	<b>- / 142.519</b>	<b>- / 181.918</b>	<b>- / 149.944</b>	<b>- / -</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**

Operational forces across the continuum of global, contingency, special operations/low intensity conflict, counter narcotics, and other high-risk missions have an immediate need to survive and sustain operations in a CB threat environment. Efforts in this budget line item number (BLIN) provide protective equipment and medical countermeasures that supports protection prior to potential operations and mitigates the hazard if exposed.

The Chemical Biological Defense Program FY 2021 funding request was reduced by \$11.836 million during the Defense-Wide Review (DWR) to account for programs being terminated or restructured.

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation										<b>Item Number / Title [DODIC]:</b> JD0050 / DECONTAMINATION FAMILY OF SYSTEMS (DFoS)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B													<b>MDAP/MAIS Code:</b>					
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>			
Procurement Quantity ( <i>Units in Each</i> )				-			-		-		-		-		-			
Gross/Weapon System Cost (\$ in Millions)				13.002			16.384		17.050		10.804		-		10.804			
Less PY Advance Procurement (\$ in Millions)				-			-		-		-		-		-			
Net Procurement (P-1) (\$ in Millions)				13.002			16.384		17.050		10.804		-		10.804			
Plus CY Advance Procurement (\$ in Millions)				-			-		-		-		-		-			
<b>Total Obligation Authority</b> (\$ in Millions)				<b>13.002</b>			<b>16.384</b>		<b>17.050</b>		<b>10.804</b>		<b>-</b>		<b>10.804</b>			
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares (\$ in Millions)				-			-		-		-		-		-			
Gross/Weapon System Unit Cost (\$ in Thousands)				-			-		-		-		-		-			
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	13.002	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS - LARGE SCALE APPLICATOR REUSABLE - Reusable (Nerve) <sup>(†)</sup>	-	-	0.000	4.480	331	1.483	4.436	495	2.196	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS - LARGE SCALE NERVE TRAINING KITS - Large Scale Nerve Training Kits <sup>(†)</sup>	-	-	0.000	-	-	0.000	0.580	317	0.184	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS - LARGE SCALE APPLICATOR TACTICAL - Tactical (Nerve) <sup>(†)</sup>	-	-	0.000	0.659	364	0.240	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS - NERVE INDICATOR KITS LARGE - Large Scale Nerve Kits <sup>(†)</sup>	-	-	0.000	-	-	0.000	1.393	354	0.493	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS - NERVE INDICATOR KITS SMALL - Small Scale Nerve Kits <sup>(†)</sup>	-	-	0.000	0.164	6,371	1.045	0.220	2,418	0.532	-	-	0.000	-	-	-	-	-	0.000

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> JD0050 / DECONTAMINATION FAMILY OF SYSTEMS (DFoS)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				MDAP/MAIS Code:														
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
DFoS CIDAS NERVE - TACTICAL & LARGE SCALE - Reusable <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	4.500	440	1.980	-	-	-	4.500	440	1.980
DFoS CIDAS NERVE - SMALL SCALE APPLICATOR NERVE - Kits <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	0.172	4,051	0.695	-	-	-	0.172	4,051	0.695
DFoS CIDAS NERVE - LARGE SCALE APPLICATOR NERVE & TRAINING - Kits <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	0.909	673	0.612	-	-	-	0.909	673	0.612
DFoS GPD - DFoS General Purpose Decontaminants <sup>(†)</sup>	-	-	0.000	0.015	173,830	2.642	0.014	291,547	4.081	0.014	276,785	3.875	-	-	-	0.014	276,785	3.875
DFoS JSEW - Equipment Decontamination Wipes <sup>(†)</sup>	-	-	0.000	0.009	656,340	5.839	0.009	383,770	3.636	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Recurring Cost</i>	-	-	13.002	-	-	11.249	-	-	11.122	-	-	7.162	-	-	-	-	-	7.162
Non Recurring Cost																		
DFoS GPD Production Line (Organic Line)	-	-	0.000	-	-	0.000	-	-	1.000	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Non Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	1.000	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Hardware Cost</i>	-	-	13.002	-	-	11.249	-	-	12.122	-	-	7.162	-	-	-	-	-	7.162
Logistics Cost																		
Recurring Cost																		
DFoS CIDAS Nerve Contract Delivery Requirements	-	-	0.000	-	-	0.266	-	-	0.000	-	-	0.035	-	-	-	-	-	0.035
DFoS CIDAS Transportation and Shipping	-	-	0.000	-	-	0.000	-	-	0.100	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS Nerve Transportation and Shipping	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.100	-	-	-	-	-	0.100
DFoS JSEW Contract Delivery Requirements	-	-	0.000	-	-	0.371	-	-	0.150	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.637	-	-	0.250	-	-	0.135	-	-	-	-	-	0.135
<i>Subtotal: Logistics Cost</i>	-	-	0.000	-	-	0.637	-	-	0.250	-	-	0.135	-	-	-	-	-	0.135

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> JD0050 / DECONTAMINATION FAMILY OF SYSTEMS (DFoS)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				MDAP/MAIS Code:														
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>		
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
Support Cost																		
DFoS CIDAS Surveillance Testing	-	-	0.000	-	-	0.000	-	-	0.050	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS Production Lot Testing	-	-	0.000	-	-	0.000	-	-	0.125	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS Engineering Support	-	-	0.000	-	-	0.908	-	-	0.932	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS Program Management Support	-	-	0.000	-	-	0.232	-	-	0.710	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS Nerve Surveillance Testing	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.050	-	-	-	-	-	0.050
DFoS CIDAS Nerve Program Management Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.681	-	-	-	-	-	0.681
DFoS CIDAS Nerve Engineering Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.917	-	-	-	-	-	0.917
DFoS CIDAS Nerve Production Lot Testing	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.167	-	-	-	-	-	0.167
DFoS GPD Production Lot Testing	-	-	0.000	-	-	2.422	-	-	0.415	-	-	0.500	-	-	-	-	-	0.500
DFoS GPD Engineering Support	-	-	0.000	-	-	0.656	-	-	0.600	-	-	0.494	-	-	-	-	-	0.494
DFoS GPD Program Management Support	-	-	0.000	-	-	0.066	-	-	0.939	-	-	0.698	-	-	-	-	-	0.698
DFoS JSEW Engineering Support	-	-	0.000	-	-	0.124	-	-	0.280	-	-	0.000	-	-	-	-	-	0.000
DFoS JSEW Program Management Support	-	-	0.000	-	-	0.090	-	-	0.627	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>4.498</b>	-	-	<b>4.678</b>	-	-	<b>3.507</b>	-	-	-	-	-	<b>3.507</b>
<b>Gross/Weapon System Cost</b>	-	-	<b>13.002</b>	-	-	<b>16.384</b>	-	-	<b>17.050</b>	-	-	<b>10.804</b>	-	-	-	-	-	<b>10.804</b>

**Remarks:**

The Decontamination Family of Systems (DFoS) is comprised of the following programs

DFoS General Purpose Decontaminant (GPD)

DFoS Joint Service Equipment Wipe (JSEW)

DFoS Contamination Indicator Decontamination Assurance System (CIDAS) Nerve

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> JD0050 / DECONTAMINATION FAMILY OF SYSTEMS (DFoS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
The DFoS GPD Program will provide thorough and operational decontamination capabilities for Hardened Military Equipment (HME), to include tactical vehicles, shipboard surfaces, crew-served weapons, and individual weapons, in hostile and non-hostile environments where it is reasonable to expect chemical, biological, radiological, and nuclear (CBRN) and Non-Traditional Agents (NTA) weapons will be employed or Toxic Industrial Materials (TIMs) may be encountered. The DFoS GPD will be employed within the integrated battle space as a means to decontaminate hazards posing threats to military personnel and operations including peacekeeping, stability and support, or consequence management operations. The DFoS GPD will be applied directly to the contaminated surface and be capable of reducing/neutralizing Chemical and Biological (CB) contamination to thorough levels after application. The DFoS GPD will be compatible with hardened materials consistent with those found on a Detailed Equipment Decontamination (DED) line. The DFoS GPD will be safe, suitable and compatible with HME and be operable in all operational environments that have been exposed to CB contamination.		
The DFoS JSEW Program will provide Warfighters with an immediate/operational decontamination capability for sensitive and non-sensitive equipment that has been exposed to chemical agents/contamination. There is currently no documented decontamination capability that is non-destructive to sensitive equipment. The DFoS JSEW will be applied directly to contaminated sensitive and non-sensitive equipment and will be capable of removing gross contamination and reducing contact hazard immediately without leaving a residue. The DFoS JSEW will provide the means to minimize or negate the vulnerability to and effects of chemical attacks for peacekeeping, stability and support or consequence management operations.		
The DFoS CIDAS Nerve Program will provide the Joint Forces with a new capability to reduce the logistics burden of decontamination by indicating presence and location of traditional Nerve and non-traditional chemical agents on militarily relevant surfaces pre- and post-decontamination. It will consist of an indicator and an applicator, for which there will be three applicator configurations (small scale, tactical large scale, and reusable large scale) and two indicator formulations (nerve training and nerve). Post application, the DFoS CIDAS Nerve will not cause material degradation other than that which is allowable in service platforms' specifications to complete primary mission functions.		
Starting in FY21, the DFoS CIDAS program is being broken into separate CIDAS Nerve and CIDAS Blister programs as the capabilities are intended to fulfill distinct solutions to meet Warfighter needs. However, there are no planned Blister efforts funded out of the Procurement appropriation in FY21. The CIDAS Nerve program will address the visual disclosure of traditional and non-traditional nerve agents while the CIDAS Blister program addresses traditional blister agents, two separate threat scenarios that require different materiel solutions.		
Justification: FY21 funds will procure 276,785 gallons of DFoS GPD chemical and biological (CB) agent thorough decontaminant for Hardened Military Equipment (HME). These funds are required for Warfighters to have a thorough decontaminant for HME that has a significantly reduced logistics footprint for tactical vehicles, shipboard surfaces, crew-served weapons, and individual/personal weapons in hostile and non-hostile environments that have been exposed to biological, and traditional and non-traditional chemical agents/contamination.		
FY21 funds will procure 440 DFoS CIDAS Nerve Large Scale Applicators (LSA) reusable, and 4,051 DFoS CIDAS Nerve Small Scale Applicators (SSA), and 673 DFoS CIDAS Nerve LSAs & training kits. These funds are required for Warfighters to have contamination indication/decontamination assurance technology and applicators for visually indicating traditional and nontraditional chemical warfare agents on tactical vehicles, aircraft, ships, crew-served and individual weapons exposed to chemical contamination.		
RDT&E Code B Item: 0604384BP/Proj DE5		
DE5/DFoS CIDAS: RDT&E FY2018 and Prior - 24.653Million; FY2019 - 4.046 Million; FY2020 - 4.626 Million DE5/DFoS GPD: RDT&E FY2018 and Prior - 10.328Million DE5/DFoS JSEW: RDT&E FY2018 and Prior - 3.687Million		
DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES		
DFoS CIDAS - Initial Capability Document: Mar 2011 DFoS CIDAS - CIDAS Milestone A: Aug 2011 DFoS CIDAS - CIDAS Capability Development Document: Sep 2014		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> JD0050 / DECONTAMINATION FAMILY OF SYSTEMS (DFoS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
DFoS CIDAS - CIDAS Milestone B: May 2015 DFoS CIDAS - CIDAS SSA-Nerve Systems Engineering Plan: May 2015 DFoS CIDAS - CIDAS SSA-Nerve Test and Evaluation Master Plan: Jul 2015 DFoS CIDAS - CIDAS Acquisition Decision Memorandum: Jun 2019 DFoS CIDAS - CIDAS Acquisition Program Baseline: Sep 2019 DFoS CIDAS - CIDAS SSA-Nerve Capability Production Document: Feb 2020 DFoS CIDAS - CIDAS LSA Test and Evaluation Master Plan: Feb 2020 DFoS CIDAS - CIDAS SSA-Nerve Life Cycle Sustainment Plan: Aug 2020 DFoS CIDAS - CIDAS SSA-Nerve Milestone C: Sep 2020 DFoS CIDAS - CIDAS SSA-Nerve Full Rate Production (FRP): Sep 2020 DFoS CIDAS - CIDAS SSA-Nerve Initial Operational Capability: Mar 2021 DFoS CIDAS - CIDAS LSA Life Cycle Sustainment Plan: Aug 2021 DFoS CIDAS - CIDAS LSA Systems Engineering Plan: Aug 2021 DFoS CIDAS - CIDAS LSA Capability Development Document: Aug 2021 DFoS CIDAS - CIDAS LSA Full Rate Production: Aug 2021 DFoS CIDAS - CIDAS LSA Initial Operational Capability: Apr 2022 DFoS CIDAS - CIDAS SSA-Nerve Full Operational Capability: Sep 2024 DFoS CIDAS - CIDAS LSA Full Operational Capability: Sep 2026 DFoS GPD - Initial Capability Document: Mar 2011 DFoS GPD - GPD Milestone A: Jul 2011 DFoS GPD - GPD Capability Development Document: Jun 2014 DFoS GPD - GPD Test and Evaluation Master Plan: Oct 2014 DFoS GPD - GPD Capability Production Document: Jan 2017 DFoS GPD - GPD Milestone C: Apr 2017 DFoS GPD - GPD Low Rate Initial Production: Apr 2017 DFoS GPD - GPD Systems Engineering Plan: May 2017 DFoS GPD - GPD Acquisition Decision Memorandum: Jun 2019 DFoS GPD - GPD Acquisition Program Baseline: Sep 2019 DFoS GPD - GPD LRIP Deliveries (Sep 2019 to Dec 2019) DFoS GPD - GPD Initial Operational Capability: Dec 2019 DFoS GPD - GPD Full Rate Production: Mar 2020 DFoS GPD - GPD FRP Deliveries (Mar 2020 to Aug 2024) DFoS GPD - GPD Life Cycle Sustainment Plan: Mar 2020 DFoS GPD - GPD Full Operational Capability: Aug 2024 DFoS JSEW - Initial Capability Document: Mar 2011 DFoS JSEW - JSEW Milestone A: Jun 2011 DFoS JSEW - JSEW Capability Development Document: Oct 2013 DFoS JSEW - JSEW Test and Evaluation Master Plan: Nov 2014 DFoS JSEW - JSEW Milestone C: Nov 2016 DFoS JSEW - JSEW Low Rate Initial Production: Nov 2016 DFoS JSEW - JSEW Systems Engineering Plan: Dec 2016 DFoS JSEW - JSEW Capability Production Document: Jan 2017 DFoS JSEW - JSEW Full Rate Production: Nov 2017		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> JD0050 / DECONTAMINATION FAMILY OF SYSTEMS (DFoS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
DFoS JSEW - JSEW Acquisition Decision Memorandum: Dec 2017 DFoS JSEW - JSEW Acquisition Program Baseline: Dec 2017 DFoS JSEW - JSEW Life Cycle Sustainment Plan: Dec 2017 DFoS JSEW - JSEW Initial Operational Capability (Navy): Mar 2018 DFoS JSEW - JSEW Initial Operational Capability (Army): Mar 2019 DFoS JSEW - JSEW Full Operational Capability: Jun 2020		

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation					Item Number / Title [DODIC]: JD0050 / DECONTAMINATION FAMILY OF SYSTEMS (DFoS)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
DFoS CIDAS - LARGE SCALE APPLICATOR REUSABLE - Reusable (Nerve)		2019	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Jan 2019	Jun 2020	331	4.480	Y		
DFoS CIDAS - LARGE SCALE APPLICATOR REUSABLE - Reusable (Nerve)		2020	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Feb 2020	Jun 2021	495	4.436	Y		
DFoS CIDAS - LARGE SCALE NERVE TRAINING KITS - Large Scale Nerve Training Kits		2020	FLIR Systems Inc. / Pittsburgh, PA	C / FP	ACC-APG, Natick, MA	Feb 2020 <sup>(1)</sup>	Jun 2020	317	0.580	Y		
DFoS CIDAS - LARGE SCALE APPLICATOR TACTICAL - Tactical (Nerve)		2019	Tooele Army Depot / Tooele, UT	MIPR	Tooele, UT	Mar 2019	Mar 2020	364	0.659	Y		
DFoS CIDAS - NERVE INDICATOR KITS LARGE - Large Scale Nerve Kits		2020	FLIR Systems Inc. / Pittsburgh, PA	C / FP	ACC-APG, Natick, MA	Feb 2020 <sup>(2)</sup>	Jun 2020	354	1.393	Y		
DFoS CIDAS - NERVE INDICATOR KITS SMALL - Small Scale Nerve Kits		2019	FLIR Systems Inc. / Pittsburgh, PA	C / FP	ACC-APG, Natick, MA	Feb 2020 <sup>(3)</sup>	Aug 2020	6,371	0.164	Y		
DFoS CIDAS - NERVE INDICATOR KITS SMALL - Small Scale Nerve Kits		2020	FLIR Systems Inc. / Pittsburgh, PA	C / FP	ACC-APG, Natick, MA	Feb 2020 <sup>(4)</sup>	May 2021	2,418	0.220	Y		
DFoS CIDAS NERVE - TACTICAL & LARGE SCALE - Reusable		2021	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2020	Jun 2021	440	4.500	Y		
DFoS CIDAS NERVE - SMALL SCALE APPLICATOR NERVE - Kits		2021	FLIR Systems Inc. / Pittsburgh, PA	C / FP	ACC-APG, Natick, MA	Nov 2020 <sup>(5)</sup>	May 2021	4,051	0.172	Y		
DFoS CIDAS NERVE - LARGE SCALE APPLICATOR NERVE & TRAINING - Kits		2021	FLIR Systems Inc. / Pittsburgh, PA	C / FP	ACC-APG, Natick, MA	Nov 2020 <sup>(6)</sup>	May 2021	673	0.909	Y		
DFoS GPD - DFoS General Purpose Decontaminants		2019	MQM Solutions / Cleveland, OH	C / FFP	ACC-APG, Natick, MA	May 2019	Sep 2019	173,830	0.015	Y		Aug 2018
DFoS GPD - DFoS General Purpose Decontaminants		2020	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2019	Nov 2020	291,547	0.014	Y		
DFoS GPD - DFoS General Purpose Decontaminants		2021	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2020	Nov 2021	276,785	0.014	Y		
DFoS JSEW - Equipment Decontamination Wipes		2019	STERIS Corporation / Mentor, OH	C / FFP	ACC-APG, Natick, MA	Feb 2019 <sup>(7)</sup>	Jan 2020	656,340	0.009	Y		
DFoS JSEW - Equipment Decontamination Wipes		2020	STERIS Corporation / Mentor, OH	C / FFP	ACC-APG, Natick, MA	Jan 2020 <sup>(8)</sup>	Mar 2020	383,770	0.009	Y		

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program	<b>Date:</b> February 2020	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> JD0050 / DECONTAMINATION FAMILY OF SYSTEMS (DFoS)

**Footnotes:**

- (1) Option
- (2) Option
- (3) Option
- (4) Option
- (5) Option
- (6) Option
- (7) Option
- (8) Option

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020								
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation										<b>Item Number / Title [DODIC]:</b> JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)								
ID Code (A=Service Ready, B=Not Service Ready) : B													MDAP/MAIS Code:								
<b>Resource Summary</b>			<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>							
Procurement Quantity ( <i>Units in Each</i> )						-		-		-		-		-							
Gross/Weapon System Cost (\$ in Millions)						0.917		0.000		24.609		3.404		-		3.404					
Less PY Advance Procurement (\$ in Millions)						-		-		-		-		-		-					
Net Procurement (P-1) (\$ in Millions)						0.917		0.000		24.609		3.404		-		3.404					
Plus CY Advance Procurement (\$ in Millions)						-		-		-		-		-		-					
<b>Total Obligation Authority</b> (\$ in Millions)						<b>0.917</b>		<b>0.000</b>		<b>24.609</b>		<b>3.404</b>		<b>-</b>		<b>3.404</b>					
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares (\$ in Millions)						-		-		-		-		-		-					
Gross/Weapon System Unit Cost (\$ in Thousands)						-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
Cost Elements	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)			
Hardware Cost																					
Recurring Cost																					
Prior/Future combined efforts	-	-	0.917	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
JBADS Hardware <sup>(†)</sup>	-	-	0.000	-	-	0.000	7,500.000	1	7.500	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.917</i>	-	-	<i>0.000</i>	-	-	<i>7.500</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
Non Recurring Cost																					
JBADS - Modification/Refurbishment	-	-	0.000	-	-	0.000	-	-	1.000	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>1.000</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
<i>Subtotal: Hardware Cost</i>	-	-	<i>0.917</i>	-	-	<i>0.000</i>	-	-	<i>8.500</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>0.000</i>			
Package Fielding Cost																					
Non Recurring Cost																					
JBADS - FRP Preparation and Reviews	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.740	-	-	-	-	-	1.740			
JBADS - Total Package Fielding	-	-	0.000	-	-	0.000	-	-	0.800	-	-	0.000	-	-	-	-	-	0.000			
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>0.800</i>	-	-	<i>1.740</i>	-	-	-	-	-	<i>1.740</i>			
<i>Subtotal: Package Fielding Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>0.800</i>	-	-	<i>1.740</i>	-	-	-	-	-	<i>1.740</i>			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program														<b>Date:</b> February 2020									
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation										<b>Item Number / Title [DODIC]:</b> JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)									
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B							<b>MDAP/MAIS Code:</b>																
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																							
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>							
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)					
Support Cost																							
JBADS - Engineering Support	-	-	0.000	-	-	0.000	-	-	2.037	-	-	1.229	-	-	-	-	-	-	1.229				
JBADS - Program Management	-	-	0.000	-	-	0.000	-	-	2.486	-	-	0.435	-	-	-	-	-	-	0.435				
JBADS - Incentive Fee	-	-	0.000	-	-	0.000	-	-	1.000	-	-	0.000	-	-	-	-	-	-	0.000				
JBADS - Production Contractor Engineering and Logistics Support	-	-	0.000	-	-	0.000	-	-	7.344	-	-	0.000	-	-	-	-	-	-	0.000				
JBADS - Production Verification Testing	-	-	0.000	-	-	0.000	-	-	2.442	-	-	0.000	-	-	-	-	-	-	0.000				
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>15.309</b>	-	-	<b>1.664</b>	-	-	-	-	-	-	<b>1.664</b>				
<b>Gross/Weapon System Cost</b>	-	-	<b>0.917</b>	-	-	<b>0.000</b>	-	-	<b>24.609</b>	-	-	<b>3.404</b>	-	-	-	-	-	-	<b>3.404</b>				
<b>Remarks:</b>																							
The Joint Biological Agent Decontamination System (JBADS) will provide the capability to conduct biological agent decontamination of the interior and exterior of the C-130 aircraft. The JBADS is a capability set that will include a shelter to encapsulate an airframe, a decontamination delivery system (e.g. hot-humid air-blower, etc.), environmental control and monitoring system(s), and other ancillary components required to ensure efficacious biological agent decontamination. It will provide the capability to decontaminate biologically contaminated airframes to safe levels and allow more rapid return to service. Future capability may address biological decontamination of other airframes and vehicles.																							
Justification: In FY21, JBADS procurement funds support Full Rate Production (FRP) preparations and reviews, such as System Verification Review (SVR), Logistics Demonstration, and preparing documentation for Milestone C/Full Rate Production (FRP)/Full Materiel Release activities.																							
RDT&E Code B Item: 0603884BP/Proj DE4; 0604384BP/Proj DE5																							
DE4/JBADS: RDT&E FY2018 and Prior - 4.300Million																							
DE5/JBADS: RDT&E FY2018 and Prior - 13.666Million; FY2019 - 10.918 Million; FY2020 - 0.222 Million; FY2021 - 4.799 Million																							
DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES																							
JBADS - Initial Capability Document: Mar 2011																							
JBADS - Capability Development Document: Nov 2016																							
JBADS - Systems Engineering Plan: Jan 2017																							
JBADS - MS B: May 2017																							

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
JBADS - Test and Evaluation Master Plan: Jun 2017 JBADS - Life Cycle Sustainment Plan: Aug 2017 JBADS - Request for Proposal: Apr 2018 JBADS - Contractor Specification Testing (Jan 2019 to Dec 2019) JBADS - MIL-STD 810-G Testing (Jul 2019 to Sep 2019) JBADS - Acquisition Decision Memorandum (ADM): Sep 2019 JBADS - Acquisition Program Baseline: Sep 2019 JBADS - First System Build (Dec 2019 to May 2020) JBADS - Product Verification Testing (PVT) (May 2020 to Aug 2020) JBADS - Full Rate Production (FRP): Mar 2022 JBADS - Initial Operational Capability (IOC): Mar 2022 JBADS - Milestone C: Mar 2022 JBADS - Full Operational Capability: Mar 2024		
(†) indicates the presence of a P-5a		

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation						<b>Item Number / Title [DODIC]:</b> JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)			
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
JBADS Hardware		2020	AeroClave / Winter Park, FL	C / CPIF	Natick, MA	Nov 2019	May 2020	1	7,500.000	N		Apr 2018
<b>Remarks:</b> In FY20, the system will be delivered, tested, modified/refurbished then fielded in FY22.												

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> JD0404 / CONTAMINATED HUMAN REMAINS SYSTEM (CHRS)						
ID Code (A=Service Ready, B=Not Service Ready) : B													MDAP/MAIS Code:						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							0.000		0.000		2.107		3.379		-		3.379		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							0.000		0.000		2.107		3.379		-		3.379		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							<b>0.000</b>		<b>0.000</b>		<b>2.107</b>		<b>3.379</b>		<b>-</b>		<b>3.379</b>		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	
Hardware Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
CHRT <sup>(†)</sup>	-	-	0.000	-	-	0.000	10.500	100	1.050	10.500	250	2.625	-	-	-	-	10.500	250	2.625
CHRT Sealing Systems <sup>(†)</sup>	-	-	0.000	-	-	0.000	16.000	5	0.080	16.000	5	0.080	-	-	-	-	16.000	5	0.080
CHRT Training Assets	-	-	0.000	-	-	0.000	-	-	0.458	-	-	0.237	-	-	-	-	-	-	0.237
CHRT Surveillance Set Asides	-	-	0.000	-	-	0.000	-	-	0.250	-	-	0.000	-	-	-	-	-	-	0.000
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>1.838</b>	-	-	<b>2.942</b>	-	-	-	-	-	-	<b>2.942</b>
<i>Subtotal: Hardware Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>1.838</b>	-	-	<b>2.942</b>	-	-	-	-	-	-	<b>2.942</b>
Support Cost																			
CHRT - Program Management and Support	-	-	0.000	-	-	0.000	-	-	0.269	-	-	0.437	-	-	-	-	-	-	0.437
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.269</b>	-	-	<b>0.437</b>	-	-	-	-	-	-	<b>0.437</b>
<b>Gross/Weapon System Cost</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>2.107</b>	-	-	<b>3.379</b>	-	-	-	-	-	-	<b>3.379</b>
Remarks:																			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> JD0404 / CONTAMINATED HUMAN REMAINS SYSTEM (CHRS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
The Contaminated Human Remains System (CHRS) program will procure systems with the capability to protect personnel handling and processing Chemical Biological Radiological (CBR) contaminated remains for safe transport from Outside the Continental United States (OCONUS) to Continental United States (CONUS). The CHRS program provides the warfighter the capability to safely handle, transport, and temporarily store or inter contaminated human remains in a theater of operations or in the United States.		
The CHRS will address one capability identified within the Contamination Mitigation (ConMit) Initial Capabilities Document (ICD): a Contaminated Human Remains Transfer Case (CHRT) packaging solution to safely send back chemical, biological, or radiological contaminated human remains to the Continental United States. The CHRT is a triple layer hazardous material transport container that must adhere to federal and international requirements for transport.		
Justification: FY21 Procures 250 Contaminated Human Remains Transfer Case (CHRT) systems, 5 CHRT sealing systems and training assets in order to support Initial Operational Capability (IOC) in FY21 and Full Operational Capability (FOC) in FY22.		
RDT&E Code B Item: 0603884BP/Proj DE4; 0604384BP/Proj DE5		
DE4/CHRS: RDT&E FY2018 and Prior - 7.430Million; FY2019 - 2.495 Million DE5/CHRS: RDT&E ; FY2020 - 2.118 Million		
DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES		
CHRS - Developmental Test (DT) (Oct 2018 to Nov 2019) CHRS - Capability Development Document (CDD) - CHRT: Feb 2019 CHRS - Critical Design Review (CDR) - CHRT: Aug 2019 CHRS - Operational Test (OT) - CHRT: Sep 2019 CHRS - Joint Independent Logistics Assessment (JILA) - CHRT (Feb 2020 to Apr 2020) CHRS - Type Classification/Material Release - CHRT: Jun 2020 CHRS - MS C- CHRT: Jun 2020 CHRS - Full Rate Production (FRP) - CHRT: Jun 2020 CHRS - Initial Operational Capability (IOC) - CHRT: May 2021 CHRS - Full Operational Capability (FOC) - CHRT: Jun 2022		
(†) indicates the presence of a P-5a		

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation					<b>Item Number / Title [DODIC]:</b> JD0404 / CONTAMINATED HUMAN REMAINS SYSTEM (CHRS)				
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$ K)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
CHRT		2020	TBD / N/A	C / FFP	ACC, APG, MD	May 2020	Dec 2021	100	10.500	Y		Feb 2020
CHRT		2021	TBD / N/A	C / FFP	ACC, APG, MD	Nov 2020	Jan 2021	250	0.420	Y		
CHRT Sealing Systems		2020	TBD / N/A	C / FFP	ACC, APG, MD	May 2020	Dec 2021	5	16.000	Y		Feb 2020
CHRT Sealing Systems		2021	TBD / N/A	C / FFP	ACC, APG, MD	Nov 2020	Jan 2021	5	3.200	Y		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020									
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> JI0002 / JS AIRCREW MASK (JSAM)									
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B												<b>MDAP/MAIS Code:</b>									
<b>Resource Summary</b>			<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>							
Procurement Quantity ( <i>Units in Each</i> )			-			-		-		-		-		-		-					
Gross/Weapon System Cost (\$ in Millions)			46.080			50.214		56.846		72.550		-		72.550							
Less PY Advance Procurement (\$ in Millions)			-			-		-		-		-		-		-					
Net Procurement (P-1) (\$ in Millions)			46.080			50.214		56.846		72.550		-		72.550							
Plus CY Advance Procurement (\$ in Millions)			-			-		-		-		-		-		-					
<b>Total Obligation Authority</b> (\$ in Millions)			<b>46.080</b>			<b>50.214</b>		<b>56.846</b>		<b>72.550</b>		-		<b>72.550</b>							
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares (\$ in Millions)			-			-		-		-		-		-		-					
Gross/Weapon System Unit Cost (\$ in Thousands)			-			-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>					
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)			
Hardware Cost																					
Recurring Cost																					
Prior/Future combined efforts	-	-	37.524	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000			
JSAM RW - MPU-5 Hardware - FRP(†)	3.470	1,692	5.871	3.324	5,110	16.986	3.483	1,344	4.681	3.548	4,298	15.249	-	-	-	3.548	4,298	15.249			
JSAM SA - M69 - Hardware - FRP(†)	1.459	1,840	2.685	1.600	5,272	8.435	1.625	12,000	19.500	1.667	11,100	18.503	-	-	-	1.667	11,100	18.503			
JSAM TA - Mask Systems- FRP(†)	-	-	0.000	7.642	840	6.419	7.839	840	6.585	8.954	840	7.521	-	-	-	8.954	840	7.521			
<i>Subtotal: Recurring Cost</i>	-	-	<b>46.080</b>	-	-	<b>31.840</b>	-	-	<b>30.766</b>	-	-	<b>41.273</b>	-	-	-	-	-	<b>41.273</b>			
<i>Subtotal: Hardware Cost</i>	-	-	<b>46.080</b>	-	-	<b>31.840</b>	-	-	<b>30.766</b>	-	-	<b>41.273</b>	-	-	-	-	-	<b>41.273</b>			
Logistics Cost																					
Recurring Cost																					
JSAM RW - Config Mgmt/Tech Manuals	-	-	0.000	-	-	0.326	-	-	0.020	-	-	0.259	-	-	-	-	-	0.259			
JSAM RW - Logistics Support	-	-	0.000	-	-	0.471	-	-	0.217	-	-	0.222	-	-	-	-	-	0.222			
JSAM RW - NET Training/Training Equipment	-	-	0.000	-	-	0.015	-	-	0.015	-	-	0.015	-	-	-	-	-	0.015			
JSAM RW - Initial Spares/Fielding Components	-	-	0.000	-	-	0.704	-	-	0.000	-	-	0.312	-	-	-	-	-	0.312			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation								<b>Item Number / Title [DODIC]:</b> JI0002 / JS AIRCREW MASK (JSAM)														
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B												<b>MDAP/MAIS Code:</b>														
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																										
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>										
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>								
JSAM SA M69- Training and Support Equipment	-	-	0.000	-	-	3.080	-	-	3.793	-	-	3.850	-	-	-	-	-	3.850								
JSAM SA M69 - New Equipment Training	-	-	0.000	-	-	0.300	-	-	1.000	-	-	1.500	-	-	-	-	-	1.500								
JSAM SA M69 - Initial Spares/Components	-	-	0.000	-	-	0.143	-	-	1.973	-	-	4.307	-	-	-	-	-	4.307								
JSAM TA - Initial Spares/ Support Equipment	-	-	0.000	-	-	1.136	-	-	0.884	-	-	0.523	-	-	-	-	-	0.523								
JSAM TA - New Equipment Training/ Training Equipment	-	-	0.000	-	-	0.016	-	-	0.656	-	-	0.672	-	-	-	-	-	0.672								
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>6.191</b>	-	-	<b>8.558</b>	-	-	<b>11.660</b>	-	-	-	-	-	<b>11.660</b>								
<i>Subtotal: Logistics Cost</i>	-	-	<b>0.000</b>	-	-	<b>6.191</b>	-	-	<b>8.558</b>	-	-	<b>11.660</b>	-	-	-	-	-	<b>11.660</b>								
<b>Support Cost</b>																										
JSAM RW - Program Management	-	-	0.000	-	-	3.775	-	-	0.985	-	-	2.336	-	-	-	-	-	2.336								
JSAM RW - Engineering Support	-	-	0.000	-	-	0.778	-	-	0.265	-	-	0.276	-	-	-	-	-	0.276								
JSAM SA M69- Production Support	-	-	0.000	-	-	2.177	-	-	3.111	-	-	3.400	-	-	-	-	-	3.400								
JSAM SA M69 - Program Management	-	-	0.000	-	-	2.028	-	-	4.621	-	-	5.000	-	-	-	-	-	5.000								
JSAM SA M69 - Engineering Support	-	-	0.000	-	-	1.849	-	-	2.248	-	-	2.361	-	-	-	-	-	2.361								
JSAM TA - Production Support	-	-	0.000	-	-	0.000	-	-	1.450	-	-	1.208	-	-	-	-	-	1.208								
JSAM TA - Program Management	-	-	0.000	-	-	1.576	-	-	3.244	-	-	3.412	-	-	-	-	-	3.412								
JSAM TA - Engineering Support	-	-	0.000	-	-	0.000	-	-	1.598	-	-	1.624	-	-	-	-	-	1.624								
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>12.183</b>	-	-	<b>17.522</b>	-	-	<b>19.617</b>	-	-	-	-	-	<b>19.617</b>								
<b>Gross/Weapon System Cost</b>	-	-	<b>46.080</b>	-	-	<b>50.214</b>	-	-	<b>56.846</b>	-	-	<b>72.550</b>	-	-	-	-	-	<b>72.550</b>								

**Remarks:**

The Joint Service Aircrew Mask (JSAM) system is a lightweight Chemical, Biological, Radiological and Nuclear (CBRN) protective mask consisting of mask, filter, blower (except JSAM SA), and accessories incorporating state-of-the-art technology to protect U.S. Forces from anticipated threats. The JSAM systems will be developed to support multiple aircraft platforms which will integrate with aircraft subsystems: Aircrew Life Support Equipment (ALSE), seating, portable aircrew systems, restraint systems, Night Vision Goggles (NVGs), and communications systems. The mask is optimized to minimize impact on the wearer's performance, maximize its ability to interface with aircrew protective clothing, and provide improved field of view when compared to current protective masks.

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> JI0002 / JS AIRCREW MASK (JSAM)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
The JSAM for Rotary Wing (JSAM RW - MPU-5) aircraft will provide head, eye, respiratory, and CB protection and "don in flight" capability for general purpose, rotary wing aircrew in all four Services and the US Coast Guard. The JSAM for Tactical Aircraft (JSAM TA) will provide CB pressure breathing for altitude and anti-G protection. The JSAM for Strategic Aircraft (JSAM SA - M69) will provide CB protection for aircrew positions that only need pressure breathing for altitude. Both the JSAM TA and JSAM SA will provide flame resistance; JSAM TA will provide demist/emergency demist.		
Justification: FY21 will procure 4,298 JSAM RW production masks, and support items to reach United States Army (USA), United States Navy (USN) and United States Marine Corps (USMC) Full Operational Capability (FOC) in 2024. FY21 will procure 11,100 JSAM SA production masks, including initial spares, to be used for fielding to various Service aircraft to meet FOC in 2024. JSAM SA will conduct New Equipment Training (NET), procure spare parts and support equipment. FY21 will also procure 840 JSAM TA production masks including transit cases, and spares/support equipment to meet FOC for United States Air Force (USAF) in 2021 and to reach United States Navy (USN)/United States Marine Corp (USMC) FOC in 2024.		
RDT&E Code B Item: 0604384BP/Proj IP5		
IP5/JSAM RW: RDT&E FY2018 and Prior - 23.896Million IP5/JSAM SA: RDT&E FY2018 and Prior - 18.325Million; FY2019 - 1.627 Million; FY2020 - 1.127 Million; FY2021 - 1.145 Million; FY2022 - 0.208 Million IP5/JSAM TA: RDT&E FY2018 and Prior - 16.622Million; FY2019 - 2.018 Million		
DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES		
JSAM RW - Milestone A: Sep 2000 JSAM RW - Milestone B: Nov 2002 JSAM RW - Capability Development Document: Apr 2012 JSAM RW - Milestone C: Jan 2015 JSAM RW - Low Rate Initial Production: Jan 2015 JSAM RW - Capability Production Document: Jan 2015 JSAM RW - Systems Engineering Plan: Jan 2015 JSAM RW - Test and Evaluation Master Plan: Mar 2015 JSAM RW - USA/USAF Full Rate Production: Dec 2016 JSAM RW - Life Cycle Sustainment Plan: Mar 2017 JSAM RW - USAF Initial Operability Capability: Feb 2018 JSAM RW - USN/USMC Full Rate Production: Apr 2018 JSAM RW - USAF Full Operational Capability: Dec 2018 JSAM RW - USN/USMC Initial Operational Capability: Apr 2019 JSAM RW - USA Initial Operational Capability: May 2019 JSAM RW - Acquisition Decision Memorandum: Jun 2019 JSAM RW - Acquisition Program Baseline: Sep 2019 JSAM RW - USA/USN/USMC Full Operational Capability: Sep 2024 JSAM SA - Milestone B: Apr 2013 JSAM SA - Capability Development Document: Feb 2014 JSAM SA - Capability Production Document: Oct 2016 JSAM SA - Milestone C Low Rate Initial Production: Oct 2016 JSAM SA - DT/OT (Capability, Integration, Airworthiness Certification) (Dec 2017 to Dec 2021)		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> JI0002 / JS AIRCREW MASK (JSAM)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
JSAM SA - USN/ USAF Full Rate Production: Apr 2018 JSAM SA - Production Contract Award: Jan 2019 JSAM SA - USAF Fielding Decision ADM: Jun 2019 JSAM SA - Acquisition Program Baseline: Sep 2019 JSAM SA - Initial Operational Capability (IOC): Sep 2020 JSAM SA - Full Operational Capability (FOC): Mar 2025 JSAM TA - AP22P (A) Safe to Fly Certification (Dec 2014 to Jun 2020) JSAM TA - Integrated (Developmental/Operational) Testing (DT/OT) (Dec 2015 to Mar 2019) JSAM TA - AP22P (A) ECP Integration (Dec 2015 to Dec 2018) JSAM TA - Capability Development Document Update (CDD): May 2019 JSAM TA - MS C: Sep 2019 JSAM TA - Full Rate Production (FRP): Sep 2019 JSAM TA - Initial Operational Capability(IOC): Mar 2021 JSAM TA - USN/USMC Full Operational Capability (FOC): Sep 2024		
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation					Item Number / Title [DODIC]: JI0002 / JS AIRCREW MASK (JSAM)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
JSAM RW - MPU-5 Hardware - FRP(t)		2018	AVOX Systems Inc. / Lancaster, NY	C / FFP	ACC, APG, MD	Jun 2019	Feb 2020	1,692	3.470	Y		Aug 2018
JSAM RW - MPU-5 Hardware - FRP(t)		2019	AVOX Systems Inc. / Lancaster, NY	C / FFP	ACC, APG, MD	Sep 2019 <sup>(9)</sup>	Apr 2021	1,745	3.324	Y		
JSAM RW - MPU-5 Hardware - FRP(t)		2019	AVOX Systems Inc. (B) / Lancaster, NY	C / FFP	ACC, APG, MD	Jun 2019 <sup>(10)</sup>	Jun 2020	3,365	3.324	Y		
JSAM RW - MPU-5 Hardware - FRP(t)		2020	AVOX Systems Inc. (B) / Lancaster, NY	C / FFP	ACC, APG, MD	Feb 2020 <sup>(11)</sup>	Aug 2021	1,344	3.483	Y		
JSAM RW - MPU-5 Hardware - FRP(t)		2021	AVOX Systems Inc. (B) / Lancaster, NY	C / FFP	ACC, APG, MD	Dec 2020 <sup>(12)</sup>	Jan 2022	4,298	3.548	Y		
JSAM SA - M69 - Hardware - FRP(t)		2018	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	ACC, APG, MD	Jan 2019	Jul 2019	1,840	1.459	Y		Jul 2018
JSAM SA - M69 - Hardware - FRP(t)		2019	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	ACC, APG, MD	Jan 2019	Dec 2019	5,272	1.459	Y		
JSAM SA - M69 - Hardware - FRP(t)		2020	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	ACC, APG, MD	Feb 2020 <sup>(13)</sup>	Jul 2020	12,000	1.625	Y		
JSAM SA - M69 - Hardware - FRP(t)		2021	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	ACC, APG, MD	Jan 2021 <sup>(14)</sup>	Jul 2021	11,100	1.667	Y		
JSAM TA - Mask Systems- FRP(t)		2019	Cam Lock Limited / Aldershot Hampshire, UK	SS / FFP	NAVAIR, Patuxent River, MD	Sep 2019	Feb 2020	840	7.176	Y	Jun 2019	
JSAM TA - Mask Systems- FRP		2020	Cam Lock Limited / Aldershot Hampshire, UK	SS / FFP	NAVAIR, Patuxent River, MD	Jul 2020 <sup>(15)</sup>	Jan 2021	840	7.839	Y		
JSAM TA - Mask Systems- FRP(t)		2021	Cam Lock Limited / Aldershot Hampshire, UK	SS / FFP	NAVAIR, Patuxent River, MD	Dec 2020 <sup>(16)</sup>	May 2021	840	8.954	Y		

(t) indicates the presence of a P-21

**Remarks:**

JSAM for Rotary Wing (JSAM RW) had two contract awards in FY19.

**Footnotes:**

- (9) Delivery Order
- (10) Delivery Order
- (11) Delivery Order
- (12) Delivery Order
- (13) Delivery Order
- (14) Delivery Order
- (15) Delivery Order

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> JI0002 / JS AIRCREW MASK (JSAM)

(16) Delivery Order

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																			Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity:							P-1 Line Item Number / Title:												Item Number / Title [DODIC]:														
0300D / 03 / 1							8001PH1000 / CB Protection & Hazard Mitigation												JI0002 / JS AIRCREW MASK (JSAM)														
Cost Elements (Units in Thousands)										Fiscal Year 2019										Fiscal Year 2020													
O C R O #	M F R Y	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L A N C E			
JSAM RW - MPU-5 Hardware - FRP																																	
1	2018	CBDP	1.692	.000	1.692																										.000		
Secondary Distribution	ARMY	1.692	.000	1.692																												.000	
1	2019	CBDP	1.745	.000	1.745																											1.745	
Secondary Distribution	ARMY	1.745	.000	1.745																												1.745	
2	2019	CBDP	3.365	.000	3.365																											2.177	
Secondary Distribution	ARMY	1.892	.000	1.892																												.895	
MC	1.473	.000	1.473																													1.282	
2	2020	CBDP	1.344	.000	1.344																											1.344	
Secondary Distribution	ARMY	.476	.000	.476																												.476	
MC	.868	.000	.868																													.868	
2	2021	CBDP	4.298	.000	4.298																											4.298	
Secondary Distribution	ARMY	1.620	.000	1.620																												1.620	
MC	1.927	.000	1.927																													1.927	
NAVY	.751	.000	.751																													.751	
JSAM SA - M69 - Hardware - FRP																																	
3	2018	CBDP	1.840	.000	1.840																											.000	
Secondary Distribution	AF	1.440	.000	1.440																												.000	
NAVY	.400	.000	.400																													.000	
3	2019	CBDP	5.272	.000	5.272																											.000	
Secondary Distribution	ARMY	.400	.000	.400																												.000	
AF	3.869	.000	3.869																													.000	
NAVY	1.003	.000	1.003																													.000	
3	2020	CBDP	12.000	.000	12.000																											9.000	
Secondary Distribution	ARMY	.464	.000	.464																												.464	
AF	11.067	.000	11.067																													8.067	
NAVY	.469	.000	.469																													.469	
3	2021	CBDP	11.100	.000	11.100																											11.100	
Secondary Distribution	AF	11.100	.000	11.100																												11.100	
JSAM TA - Mask Systems- FRP																																	
4	2019	CBDP	.840	.000	.840																												.220
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																			Date: February 2020																								
Appropriation / Budget Activity / Budget Sub Activity:										P-1 Line Item Number / Title:										Item Number / Title [DODIC]:																							
0300D / 03 / 1										8001PH1000 / CB Protection & Hazard Mitigation										JI0002 / JS AIRCREW MASK (JSAM)																							
Cost Elements (Units in Thousands)										Fiscal Year 2019										Fiscal Year 2020																							
O C R O #	M F R Y	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019										Calendar Year 2020																											
O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L A N C E																			
Secondary Distribution	MC	.410	.000	.410																																					.110		
NAVY	.430	.000	.430																																					.110			
4 2021	CBDP	.840	.000	.840																																				.840			
Secondary Distribution	MC	.670	.000	.670																																				.670			
NAVY	.170	.000	.170																																					.170			
										O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P										

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**Exhibit P-21, Production Schedule:** PB 2021 Chemical and Biological Defense Program

**Date:** February 2020

**Appropriation / Budget Activity / Budget Sub Activity:**

0300D / 03 / 1

**P-1 Line Item Number / Title:**

8001PH1000 / CB Protection & Hazard Mitigation

**Item Number / Title [DODIC]:**

JI0002 / JS AIRCREW MASK (JSAM)

Cost Elements (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022														
O C R O #	M F R Y	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT		Calendar Year 2021												Calendar Year 2022														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
JSAM RW - MPU-5 Hardware - FRP																																	
1	2018	CBDP	1.692	1.692	.000																												.000
Secondary Distribution		ARMY	1.692	1.692	.000																												.000
1	2019	CBDP	1.745	.000	1.745	-	-	-	-	-	-		.343	.360	.360	.360	.322															.000	
Secondary Distribution		ARMY	1.745	.000	1.745	-	-	-	-	-	-		.343	.360	.360	.360	.322													.000			
2	2019	CBDP	3.365	1.188	2.177	.360	.360	.360	.360	.360	.360		.360	.017																.000			
Secondary Distribution		ARMY	1.892	.997	.895	.360	.360	.175	-	-	-																			.000			
MC		MC	1.473	.191	1.282	-	-	.185	.360	.360	.360		.360	.017																.000			
2	2020	CBDP	1.344	.000	1.344	-	-	-	-	-	-																			.000			
Secondary Distribution		ARMY	.476	.000	.476	-	-	-	-	-	-																		.000				
MC		MC	.868	.000	.868	-	-	-	-	-	-																		.000				
2	2021	CBDP	4.298	.000	4.298		A	-	-	-	-																			.000			
Secondary Distribution		ARMY	1.620	.000	1.620		A	-	-	-	-																		.000				
MC		MC	1.927	.000	1.927		A	-	-	-	-																		.000				
NAVY		NAVY	.751	.000	.751		A	-	-	-	-																		.000				
JSAM SA - M69 - Hardware - FRP																															1.058		
3	2018	CBDP	1.840	1.840	.000																										.000		
Secondary Distribution		AF	1.440	1.440	.000																										.000		
NAVY		NAVY	.400	.400	.000																										.000		
3	2019	CBDP	5.272	5.272	.000																										.000		
Secondary Distribution		ARMY	.400	.400	.000																									.000			
AF		AF	3.869	3.869	.000																									.000			
NAVY		NAVY	1.003	1.003	.000																									.000			
3	2020	CBDP	12.000	3.000	9.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.000					
Secondary Distribution		ARMY	.464	.000	.464	.464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.000					
AF		AF	11.067	3.000	8.067	.067	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.000					
NAVY		NAVY	.469	.000	.469	.469	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.000					
3	2021	CBDP	11.100	.000	11.100		A	-	-	-	-	-	-	-	-	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.100			
Secondary Distribution		AF	11.100	.000	11.100		A	-	-	-	-	-	-	-	-	-	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.100			
JSAM TA - Mask Systems- FRP																															.000		
4	2019	CBDP	.840	.620	.220	.080	.080	.060																							.000		
			O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																				Date: February 2020															
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1										P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation										Item Number / Title [DODIC]: JI0002 / JS AIRCREW MASK (JSAM)															
Cost Elements (Units in Thousands)							Fiscal Year 2021												Fiscal Year 2022																
O C R O #	M F R	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L A N C E				
Secondary Distribution		MC	.410	.300	.110	.040	.040	.030																											.000
NAVY			.430	.320	.110	.040	.040	.030																											.000
4 2021		CBDP	.840	.000	.840				A -	-	-	-	-	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.000			
Secondary Distribution		MC	.670	.000	.670				A -	-	-	-	-	.070	.070	.070	.070	.070	.070	.070	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.000				
NAVY			.170	.000	.170				A -	-	-	-	-	-	-	-	-	-	-	-	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.000				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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**Exhibit P-21, Production Schedule:** PB 2021 Chemical and Biological Defense Program

**Date:** February 2020

**Appropriation / Budget Activity / Budget Sub Activity:**

0300D / 03 / 1

**P-1 Line Item Number / Title:**

8001PH1000 / CB Protection & Hazard Mitigation

**Item Number / Title [DODIC]:**

JI0002 / JS AIRCREW MASK (JSAM)

Cost Elements (Units in Thousands)							Fiscal Year 2023												Fiscal Year 2024													
O C R O #	M F R Y	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT		Calendar Year 2023												Calendar Year 2024													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
JSAM RW - MPU-5 Hardware - FRP																																
1	2018	CBDP	1.692	1.692	.000																										.000	
<i>Secondary Distribution</i>		ARMY	1.692	1.692	.000																										.000	
1	2019	CBDP	1.745	1.745	.000																										.000	
<i>Secondary Distribution</i>		ARMY	1.745	1.745	.000																										.000	
2	2019	CBDP	3.365	3.365	.000																										.000	
<i>Secondary Distribution</i>		ARMY	1.892	1.892	.000																										.000	
		MC	1.473	1.473	.000																										.000	
2	2020	CBDP	1.344	1.344	.000																										.000	
<i>Secondary Distribution</i>		ARMY	.476	.476	.000																										.000	
		MC	.868	.868	.000																										.000	
2	2021	CBDP	4.298	3.240	1.058	.360	.360	.338																						.000		
<i>Secondary Distribution</i>		ARMY	1.620	1.620	.000	-	-	-																						.000		
		MC	1.927	.869	1.058	.360	.360	.338																						.000		
		NAVY	.751	.751	.000	-	-	-																							.000	
JSAM SA - M69 - Hardware - FRP																															.000	
3	2018	CBDP	1.840	1.840	.000																										.000	
<i>Secondary Distribution</i>		AF	1.440	1.440	.000																										.000	
		NAVY	.400	.400	.000																										.000	
3	2019	CBDP	5.272	5.272	.000																										.000	
<i>Secondary Distribution</i>		ARMY	.400	.400	.000																										.000	
		AF	3.869	3.869	.000																										.000	
		NAVY	1.003	1.003	.000																										.000	
3	2020	CBDP	12.000	12.000	.000																										.000	
<i>Secondary Distribution</i>		ARMY	.464	.464	.000																										.000	
		AF	11.067	11.067	.000																										.000	
		NAVY	.469	.469	.000																										.000	
3	2021	CBDP	11.100	11.100	.000																										.000	
<i>Secondary Distribution</i>		AF	11.100	11.100	.000																										.000	
JSAM TA - Mask Systems- FRP																															.000	
4	2019	CBDP	.840	.840	.000																											.000
		O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																			Date: February 2020																									
Appropriation / Budget Activity / Budget Sub Activity:										P-1 Line Item Number / Title:										Item Number / Title [DODIC]:																								
0300D / 03 / 1										8001PH1000 / CB Protection & Hazard Mitigation										JI0002 / JS AIRCREW MASK (JSAM)																								
Cost Elements (Units in Thousands)										Fiscal Year 2023										Fiscal Year 2024																								
O C R O #	M F R Y	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023										Calendar Year 2024																												
O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L A N C E	.000																			
Secondary Distribution	MC	.410	.410	.000																																								
	NAVY	.430	.430	.000																																								
4 2021	CBDP	.840	.840	.000																																								
Secondary Distribution	MC	.670	.670	.000																																								
	NAVY	.170	.170	.000																																								
										O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P											

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1				P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation						Item Number / Title [DODIC]: JI0002 / JS AIRCREW MASK (JSAM)			
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	AVOX Systems Inc. - Lancaster, NY	45	360	400	0	20	8	28	0	2	13		15
2	AVOX Systems Inc. (B) - Lancaster, NY	45	360	400	0	20	8	28	0	2	13		15
3	AVON Protection Systems Inc. - Cadillac, MI	100	1,000	1,500	0	15	6	21	0	3	6		9
4	Cam Lock Limited - Aldershot Hampshire, UK	60	167	333	0	11	5	16	0	2	5		7

**Remarks:**

Production rates are monthly for all manufacturers

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> JI0003 / JOINT SERVICE GENERAL PURPOSE MASK (JSGPM)						
ID Code (A=Service Ready, B=Not Service Ready) : A													MDAP/MAIS Code:						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							126.225		18.359		13.209		22.402		-		22.402		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							126.225		18.359		13.209		22.402		-		22.402		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)				<b>126.225</b>			<b>18.359</b>		<b>13.209</b>		<b>22.402</b>		<b>-</b>		<b>22.402</b>				
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	
Hardware Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	121.399	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
JSGPM - Ground/Ship (M53A1) <sup>(†)</sup>	2.701	1,787	4.826	2,336	3,500	8.177	2,750	2,250	6.187	2,650	4,263	11.297	-	-	-	2,650	4,263	11.297	
<i>Subtotal: Recurring Cost</i>	-	-	<i>126.225</i>	-	-	<i>8.177</i>	-	-	<i>6.187</i>	-	-	<i>11.297</i>	-	-	-	-	-	<i>11.297</i>	
<i>Subtotal: Hardware Cost</i>	-	-	<i>126.225</i>	-	-	<i>8.177</i>	-	-	<i>6.187</i>	-	-	<i>11.297</i>	-	-	-	-	-	<i>11.297</i>	
Package Fielding Cost																			
Recurring Cost																			
System Fielding Support (Total Package Fielding, First Destination Transportation & New Equipment..)	-	-	0.000	-	-	1.412	-	-	1.809	-	-	1.899	-	-	-	-	-	1.899	
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>1.412</i>	-	-	<i>1.809</i>	-	-	<i>1.899</i>	-	-	-	-	-	<i>1.899</i>	
<i>Subtotal: Package Fielding Cost</i>	-	-	<i>0.000</i>	-	-	<i>1.412</i>	-	-	<i>1.809</i>	-	-	<i>1.899</i>	-	-	-	-	-	<i>1.899</i>	
Logistics Cost																			
Recurring Cost																			
Initial Spares	-	-	0.000	-	-	3.303	-	-	0.803	-	-	3.429	-	-	-	-	-	3.429	
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>3.303</i>	-	-	<i>0.803</i>	-	-	<i>3.429</i>	-	-	-	-	-	<i>3.429</i>	

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020										
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> JI0003 / JOINT SERVICE GENERAL PURPOSE MASK (JSGPM)										
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:																
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																							
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>							
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>					
<i>Subtotal: Logistics Cost</i>	-	-	<b>0.000</b>	-	-	<b>3.303</b>	-	-	<b>0.803</b>	-	-	<b>3.429</b>	-	-	-	-	-	<b>3.429</b>					
Support Cost																							
Engineering Support	-	-	0.000	-	-	2.693	-	-	2.347	-	-	2.503	-	-	-	-	-	2.503					
Program Management	-	-	0.000	-	-	1.705	-	-	1.763	-	-	2.859	-	-	-	-	-	2.859					
Production Acceptance Test	-	-	0.000	-	-	1.069	-	-	0.300	-	-	0.415	-	-	-	-	-	0.415					
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>5.467</b>	-	-	<b>4.410</b>	-	-	<b>5.777</b>	-	-	-	-	-	<b>5.777</b>					
<b>Gross/Weapon System Cost</b>	-	-	<b>126.225</b>	-	-	<b>18.359</b>	-	-	<b>13.209</b>	-	-	<b>22.402</b>	-	-	-	-	-	<b>22.402</b>					

**Remarks:**

The Joint Service General Purpose Mask (JSGPM) family of systems provides lightweight, protective Nuclear Biological Chemical (NBC) mask system. It incorporates state-of-the-art technology to protect the U.S. Joint Forces from anticipated threats. The JSGPM provides above-the-neck, head/eye/respiratory protection against Chemical and Biological (CB) agents, radioactive particles, and Toxic Industrial Materials (TIMs). The mask design is optimized to minimize impact on the wearer's performance, and to maximize its ability to interface with fielded and future Joint Service equipment and protective clothing. The JSGPM mask system replaces the M40/M42 series of masks for Army and Marine ground and combat vehicle operations and the MCU-2/P series for Air Force and Navy ground and shipboard applications. In addition, the JSGPM replaces the M45 mask in the Land Warrior program. This can significantly reduce the number of masks that will have to be logistically supported by the Department of Defense. The M50 is the ground/ship version of the JSGPM, the M51 is the combat vehicle crewman version of the JSGPM, the M53 is the special operations version of the JSGPM, and the M53A1 is the National Institute for Occupational Safety and Health (NIOSH) certified variant approved for both military and domestic response missions. Individual protection efforts are focused on equipment that both improves current protection levels and reduces the physiological and logistical burden on the individual soldier, sailor, airman or marine.

Justification: FY21 funds procure 4,263 JSGPM Ground/Ship (M53A1) masks with blowers, training, initial spares, and total package fielding to support Army requirements.

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation					Item Number / Title [DODIC]: JI0003 / JOINT SERVICE GENERAL PURPOSE MASK (JSGPM)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
JSGPM - Ground/Ship (M53A1) <sup>(†)</sup>		2018	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	RDECOM, APG, MD	Mar 2019	Sep 2019	1,787	2.701	Y		
JSGPM - Ground/Ship (M53A1) <sup>(†)</sup>		2019	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	RDECOM, APG, MD	Mar 2019 <sup>(17)</sup>	Sep 2019	3,500	2.600	Y		
JSGPM - Ground/Ship (M53A1) <sup>(†)</sup>		2020	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	RDECOM, APG, MD	Dec 2019 <sup>(18)</sup>	Apr 2020	2,250	2.750	Y		
JSGPM - Ground/Ship (M53A1) <sup>(†)</sup>		2021	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	RDECOM, APG, MD	Dec 2020 <sup>(19)</sup>	Apr 2021	4,263	2.650	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Footnotes:**

- (17) Delivery Order
- (18) Delivery Order
- (19) Delivery Order

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																			Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 03000D / 03 / 1										P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation										Item Number / Title [DODIC]: JI0003 / JOINT SERVICE GENERAL PURPOSE MASK (JSGPM)													
Cost Elements (Units in Each)								Fiscal Year 2019												Fiscal Year 2020												B A L A N C E	
O C O #	M F R	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
JSGPM - Ground/Ship (M53A1)								Calendar Year 2019												Calendar Year 2020													
1	2018	CBDP	1,787	0	1,787																												0
Secondary Distribution		ARMY	1,787	0	1,787																												0
1	2019	CBDP	3,500	0	3,500																												0
Secondary Distribution		ARMY	3,500	0	3,500																												0
1	2020	CBDP	2,250	0	2,250																												0
Secondary Distribution		ARMY	2,250	0	2,250																												0
1	2021	CBDP	4,263	0	4,263																												4,263
Secondary Distribution		ARMY	4,263	0	4,263																												4,263
								O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																			Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 03000D / 03 / 1										P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation										Item Number / Title [DODIC]: JI0003 / JOINT SERVICE GENERAL PURPOSE MASK (JSGPM)													
Cost Elements (Units in Each)								Fiscal Year 2021												Fiscal Year 2022												B A L A N C E	
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
JSGPM - Ground/Ship (M53A1)								Calendar Year 2021												Calendar Year 2022													
1	2018	CBDP	1,787	1,787	0																											0	
Secondary Distribution		ARMY	1,787	1,787	0																											0	
1	2019	CBDP	3,500	3,500	0																											0	
Secondary Distribution		ARMY	3,500	3,500	0																											0	
1	2020	CBDP	2,250	2,250	0																											0	
Secondary Distribution		ARMY	2,250	2,250	0																											0	
1	2021	CBDP	4,263	0	4,263			A -	-	-	-	-	4,263																		0		
Secondary Distribution		ARMY	4,263	0	4,263			A -	-	-	-	-	4,263																		0		
								O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		

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<b>Exhibit P-21, Production Schedule:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation					<b>Item Number / Title [DODIC]:</b> JI0003 / JOINT SERVICE GENERAL PURPOSE MASK (JSGPM)			
<b>MFR Ref #</b>	<b>Manufacturer Name - Location</b>	<b>Production Rates (Each / Month)</b>			<b>Procurement Leadtime (Months)</b>						
		<b>MSR For 2021</b>	<b>1-8-5 For 2021</b>	<b>MAX For 2021</b>	<b>Initial</b>		<b>Reorder</b>				
1	AVON Protection Systems Inc. - Cadillac, MI	1,000	2,566	10,267	0	5	6	11	0	2	4
<b>Remarks:</b> Production rates are monthly for all manufacturers											
(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule. "A" in the Delivery Schedule indicates the Contract Award Date.											
<b>Note:</b> Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).											

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> JM6677 / ADVANCED ANTICONVULSANT SYSTEM (AAS)						
ID Code (A=Service Ready, B=Not Service Ready) : B													MDAP/MAIS Code:						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							0.000		0.000		3.152		0.000		-		0.000		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							0.000		0.000		3.152		0.000		-		0.000		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							<b>0.000</b>		<b>0.000</b>		<b>3.152</b>		<b>0.000</b>		<b>-</b>		<b>0.000</b>		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	
Hardware Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
AAS	-	-	0.000	-	-	0.000	-	-	3.152	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	3.152	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Hardware Cost</i>	-	-	0.000	-	-	0.000	-	-	3.152	-	-	0.000	-	-	-	-	-	0.000	
Gross/Weapon System Cost	-	-	0.000	-	-	0.000	-	-	3.152	-	-	0.000	-	-	-	-	-	0.000	
<b>Remarks:</b>																			
The Advanced Anticonvulsant System (AAS) will consist of the drug midazolam in an autoinjector for use in treating nerve agent induced seizures and will replace the currently fielded Convulsant Antidote for Nerve Agent (CANA) autoinjector, which uses diazepam. Procurement funds will support Initial Operational Capability (IOC), Full Operational Capability (FOC), support AAS transitioning to the Defense Logistics Agency (DLA) for sustainment and anticipated post approval activities required by the FDA.																			
Justification: There is no FY21 PB Request.																			
RDT&E Code B Item: 0604384BP/Proj MC5																			
MC5/AAS: RDT&E FY2018 and Prior - 57.456Million; FY2019 - 4.898 Million; FY2021 - 4.048 Million; FY2022 - 2.665 Million																			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> JM6677 / ADVANCED ANTICONVULSANT SYSTEM (AAS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES		
AAS - Milestone C: Jun 2013		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> JP1111 / JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECP)						
ID Code (A=Service Ready, B=Not Service Ready) : B													MDAP/MAIS Code:						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							23.805		24.552		13.570		14.496		-		14.496		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							23.805		24.552		13.570		14.496		-		14.496		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							<b>23.805</b>		<b>24.552</b>		<b>13.570</b>		<b>14.496</b>		<b>-</b>		<b>14.496</b>		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	
Hardware Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	22.577	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
TENT KIT 2 <sup>(†)</sup>	-	-	0.000	139.273	11	1.532	185.000	10	1.850	160.533	15	2.408	-	-	-	-	160.533	15	2.408
TENT STANDALONE LARGE - STANDALONE SHELTER LARGE <sup>(†)</sup>	245.600	5	1.228	259.362	58	15.043	307.000	21	6.447	-	-	0.000	-	-	-	-	-	0.000	
TENT KIT 1 <sup>(†)</sup>	-	-	0.000	182.444	9	1.642	-	-	0.000	106.333	9	0.957	-	-	-	-	106.333	9	0.957
TENT KIT 3 <sup>(†)</sup>	-	-	0.000	413.000	3	1.239	-	-	0.000	172.667	3	0.518	-	-	-	-	172.667	3	0.518
STRUCTURE KIT UNIMPROVED <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	57.929	14	0.811	-	-	-	-	57.929	14	0.811
TENT KIT Single Skin <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	225.520	25	5.638	-	-	-	-	225.520	25	5.638
Engineer Changes/Modifications	-	-	0.000	-	-	0.250	-	-	0.059	-	-	0.060	-	-	-	-	-	0.060	
<i>Subtotal: Recurring Cost</i>	-	-	<b>23.805</b>	-	-	<b>19.706</b>	-	-	<b>8.356</b>	-	-	<b>10.392</b>	-	-	-	-	-	<b>10.392</b>	
<i>Subtotal: Hardware Cost</i>	-	-	<b>23.805</b>	-	-	<b>19.706</b>	-	-	<b>8.356</b>	-	-	<b>10.392</b>	-	-	-	-	-	<b>10.392</b>	
Package Fielding Cost																			
Recurring Cost																			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020													
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> JP1111 / JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECP)													
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B													<b>MDAP/MAIS Code:</b>													
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																										
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>										
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)								
Training / Fielding / CLS	-	-	0.000	-	-	1.298	-	-	2.633	-	-	1.647	-	-	-	-	-	1.647								
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>1.298</b>	-	-	<b>2.633</b>	-	-	<b>1.647</b>	-	-	-	-	-	<b>1.647</b>								
<i>Subtotal: Package Fielding Cost</i>	-	-	<b>0.000</b>	-	-	<b>1.298</b>	-	-	<b>2.633</b>	-	-	<b>1.647</b>	-	-	-	-	-	<b>1.647</b>								
Logistics Cost																										
Recurring Cost																										
Spares	-	-	0.000	-	-	0.008	-	-	0.070	-	-	0.023	-	-	-	-	-	0.023								
Technical Data	-	-	0.000	-	-	0.075	-	-	0.080	-	-	0.130	-	-	-	-	-	0.130								
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.083</b>	-	-	<b>0.150</b>	-	-	<b>0.153</b>	-	-	-	-	-	<b>0.153</b>								
<i>Subtotal: Logistics Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.083</b>	-	-	<b>0.150</b>	-	-	<b>0.153</b>	-	-	-	-	-	<b>0.153</b>								
Support Cost																										
Program Management and Support	-	-	0.000	-	-	2.525	-	-	1.506	-	-	1.850	-	-	-	-	-	1.850								
Systems Engineering	-	-	0.000	-	-	0.940	-	-	0.925	-	-	0.454	-	-	-	-	-	0.454								
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>3.465</b>	-	-	<b>2.431</b>	-	-	<b>2.304</b>	-	-	-	-	-	<b>2.304</b>								
<b>Gross/Weapon System Cost</b>	-	-	<b>23.805</b>	-	-	<b>24.552</b>	-	-	<b>13.570</b>	-	-	<b>14.496</b>	-	-	-	-	-	<b>14.496</b>								
<b>Remarks:</b>																										
Joint Expeditionary Collective Protection (JECP) provides the Joint expeditionary forces a Collective Protection (CP) capability which is lightweight, compact, modular, and affordable. The JECP Family of Systems (FoS) include tent kits, structure kits, and standalone shelters that allow the application of CP to transportable soft-side shelters, enclosed spaces of opportunity, and remote austere locations as a standalone resource. JECP is capable of protecting personnel groups of varying size, unencumbered by Individual Protective Equipment (IPE), from effects of Chemical and Biological (CB) agents, Radiological (R) particles, Toxic Industrial Materials (TIMs), heat, dust, and sand.																										
Tent kits consist of a CB protective liner or a tent system containing CB protective material, airlock system, and a CB filtration blower system. Tent Kit-1 (TK1) and Tent Kit-3 (TK3) interface with the US Navy's Base-X general purpose tents and all organic Base-X equipment including the Environmental Control Unit (ECU) and power systems. Tent Kit-2 (TK2) interfaces with the Air Force Small Shelter System (ASSS) general purpose tents and all organic ASSS equipment including the ECU and power systems. Tent Kit Single Skin (TKSS) interfaces with Air Force organic equipment including an ECU and power systems.																										
Structure kits may include a floorless CB protective liner or a CB protective liner with a floor, an airlock system, and a CB filtration blower system. Structure Kit-Improved (SKI) is retrofitted to structures such as office buildings, warehouses, or hangars that provide coherent walls and roofing, ventilation systems, doors and windows, and power. Structure Kit Unimproved (SKUI) are retrofitted to structures such as huts, sheds or other rudimentary structures that do not have any available electrical power but provide environmental and other basic elemental protection. This configuration uses a passive CP system relying on natural airflow through CB protective filtration panels.																										
Standalone Large (SAL) shelter is an all-encompassing active CP shelter for up to 20 people. SAL provides a general purpose tent system, CB protective liner, an airlock system, a CB filtration blower system, an ECU and all necessary power and ancillary equipment.																										

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> JP1111 / JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECP)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>

Note: Other Service Funding: Other Procurement, Army (OPA), Budget Activity 03, Budget Sub Activity 10, Line Item 4516M01001 procures 16 Stand Alone Large Systems in FY19. There is no OPA funding for JECP in FY20 or FY21.

Justification: FY21 procures 66 JECP systems in the following configurations: 15 TK2s, 9 TK1s, 3 TK3s, 14 SKUs and 25 TKSS's

RDT&E Code B Item: 0604384BP/Proj CO5; 0607384BP/Proj CO7

CO5/JECP: RDT&E FY2018 and Prior - 116.083Million; FY2019 - 5.972 Million; FY2020 - 6.395 Million; FY2021 - 7.885 Million; FY2022 - 2.983 Million

CO7/JECP: RDT&E FY2018 and Prior - 10.481Million; FY2019 - 2.718 Million; FY2020 - 1.997 Million

**DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES**

JECP - Initial Capability Document: Apr 2004

JECP - Milestone A Decision: Apr 2006

JECP - Milestone B Decision: Mar 2008

JECP - Capability Development Document: Aug 2008

JECP - Capability Production Document: Jan 2013

JECP - Milestone C: Feb 2013

JECP - Systems Engineering Plan: Mar 2013

JECP - Test and Evaluation Master Plan (TEMP): Aug 2013

JECP - Low Rate Initial Production: Feb 2013

JECP - Acquisition Decision Memorandum: Jun 2019

JECP - Phase 1 Full Rate Production Decision: Dec 2016

JECP - Life Cycle Sustainment Plan: Apr 2017

JECP - Acquisition Program Baseline: Sep 2019

JECP - Phase 2 Full Rate Production: Sep 2021

JECP - Initial Operational Capability (IOC): Sep 2022

JECP - Full Operational Capability (FOC): Sep 2030

P5: Unit cost increases for JECP will change depending on the number and type of variant procured and whether the vendor has to procure additional chemical biological protective fabric.

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation					Item Number / Title [DODIC]: JP1111 / JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECP)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
TENT KIT 2		2019	Production Products Inc. / St Louis, MO	C / FFP	Aberdeen, MD	Jun 2019	Jan 2020	11	139.273	Y		Apr 2019
TENT KIT 2		2020	Production Products Inc. / St Louis, MO	C / FFP	Aberdeen, MD	Jan 2020 <sup>(20)</sup>	Jul 2020	10	185.000	Y		
TENT KIT 2		2021	Production Products Inc. / St Louis, MO	C / FFP	Aberdeen, MD	Jan 2021 <sup>(21)</sup>	Jun 2021	15	164.000	Y		
TENT STANDALONE LARGE - STANDALONE SHELTER LARGE		2018	Leidos / Abingdon, MD	C / FPIF	Aberdeen, MD	Apr 2018	Jan 2019	5	245.600	Y		
TENT STANDALONE LARGE - STANDALONE SHELTER LARGE		2019	Production Products Inc. / St Louis, MO	C / FFP	Aberdeen, MD	Jun 2019	May 2020	58	259.362	Y		Apr 2019
TENT STANDALONE LARGE - STANDALONE SHELTER LARGE		2020	Production Products Inc. / St Louis, MO	C / FFP	Aberdeen, MD	Jan 2020 <sup>(22)</sup>	Jul 2020	21	307.000	Y		
TENT KIT 1		2019	Leidos / Abingdon, MD	C / FFP	Aberdeen, MD	Jun 2019	Apr 2021	9	182.444	Y		Sep 2018
TENT KIT 1		2021	Leidos / Abingdon, MD	C / FFP	Aberdeen, MD	Mar 2021 <sup>(23)</sup>	Nov 2021	9	106.889	Y		
TENT KIT 3		2019	Leidos / Abingdon, MD	C / FFP	Aberdeen, MD	Jun 2019	Feb 2020	3	413.000	Y		Sep 2018
TENT KIT 3		2021	Leidos / Abingdon, MD	C / FFP	Aberdeen, MD	Mar 2021 <sup>(24)</sup>	Nov 2021	3	172.667	Y		
STRUCTURE KIT UNIMPROVED		2021	Leidos / Abingdon, MD	C / FFP	Aberdeen, MD	Mar 2021 <sup>(25)</sup>	Nov 2021	14	57.929	Y		
TENT KIT Single Skin <sup>(†)</sup>		2021	Leidos / Abingdon, MD	C / FFP	Aberdeen, MD	Jan 2021 <sup>(26)</sup>	Sep 2021	25	225.520	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Footnotes:**

(20) Option

(21) Option

(22) Option

(23) Option

(24) Option

(25) Option

(26) Option

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																			Date: February 2020																																																																																																																																																																																																																				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1																			Item Number / Title [DODIC]: JP1111 / JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECP)																																																																																																																																																																																																																				
Cost Elements (Units in Each)																			Fiscal Year 2018																																																																																																																																																																																																																				
<table border="1"> <thead> <tr> <th rowspan="2">O C O #</th><th rowspan="2">M F R</th><th rowspan="2">FY</th><th rowspan="2">SERVICE</th><th rowspan="2">PROC QTY</th><th rowspan="2">ACCEPT PRIOR TO 1 OCT 2017</th><th rowspan="2">BAL DUE AS OF 1 OCT</th><th colspan="12">Calendar Year 2018</th><th colspan="12">Calendar Year 2019</th><th rowspan="2">B A L A N C E</th></tr> <tr> <th>O C T</th><th>N O V</th><th>D E C</th><th>J A N</th><th>F E B</th><th>M A R</th><th>A P R</th><th>M A Y</th><th>J U N</th><th>J U L</th><th>A U G</th><th>S E P</th><th>O C T</th><th>N O V</th><th>D E C</th><th>J A N</th><th>F E B</th><th>M A R</th><th>A P R</th><th>M A Y</th><th>J U N</th><th>J U L</th><th>A U G</th><th>S E P</th></tr> </thead> <tbody> <tr> <td colspan="19">TENT KIT Single Skin</td><td colspan="10"></td></tr> <tr> <td>1</td><td>2021</td><td>CBDP</td><td>25</td><td>0</td><td>25</td><td></td><td colspan="12"></td><td colspan="10"></td><td>25</td></tr> <tr> <td>Secondary Distribution</td><td>ARMY</td><td></td><td>25</td><td>0</td><td>25</td><td></td><td colspan="12" rowspan="3"></td><td colspan="10"></td><td>25</td></tr> <tr> <td colspan="19"></td><td colspan="10"></td></tr> <tr> <td colspan="19"></td><td colspan="10"></td></tr> </tbody> </table>																			O C O #	M F R	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												B A L A N C E	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	TENT KIT Single Skin																													1	2021	CBDP	25	0	25																								25	Secondary Distribution	ARMY		25	0	25																								25																																																																				
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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																			Date: February 2020												
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1										P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation										Item Number / Title [DODIC]: JP1111 / JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECP)											
Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												B A L A N C E
O C O #	M F R	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
TENT KIT Single Skin							Calendar Year 2020												Calendar Year 2021												
1	2021	CBDP	25	0	25														A -	-	-	-	-	-	-	-	-	-	25	0	
Secondary Distribution	ARMY		25	0	25														A -	-	-	-	-	-	-	-	-	-	25	0	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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<b>Exhibit P-21, Production Schedule:</b> PB 2021 Chemical and Biological Defense Program									<b>Date:</b> February 2020			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation						<b>Item Number / Title [DODIC]:</b> JP1111 / JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECP)			
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial			Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Leidos - Abingdon, MD	5	20	45	0	3	8	11	0	3	8	11

**Remarks:**  
 Production rates assume each system is manufactured exclusive of the other systems. \*\* Production rates are monthly for all manufacturers

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
 "A" in the Delivery Schedule indicates the Contract Award Date.

**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation										<b>Item Number / Title [DODIC]:</b> JP1112 / CHEMICAL BIOLOGICAL AIRCRAFT SURVIVABILITY BARRIER (CASB)							
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B													<b>MDAP/MAIS Code:</b>							
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>					
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-					
Gross/Weapon System Cost (\$ in Millions)							0.000		0.750		5.040		8.243		-		8.243			
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-			
Net Procurement (P-1) (\$ in Millions)							0.000		0.750		5.040		8.243		-		8.243			
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-			
<b>Total Obligation Authority</b> (\$ in Millions)							0.000		0.750		5.040		8.243		-		8.243			
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																				
Initial Spares (\$ in Millions)									-		-		-		-		-			
Gross/Weapon System Unit Cost (\$ in Thousands)									-		-		-		-		-			
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																				
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>				
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)		
Hardware Cost																				
Recurring Cost																				
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000		
NS CASB System <sup>(†)</sup>	-	-	0.000	108.333	6	0.650	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000		
CASB System <sup>(†)</sup>	-	-	0.000	-	-	0.000	99.925	40	3.997	99.903	62	6.194	-	-	-	99.903	62	6.194		
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.650	-	-	3.997	-	-	6.194	-	-	-	-	-	6.194		
<i>Subtotal: Hardware Cost</i>	-	-	0.000	-	-	0.650	-	-	3.997	-	-	6.194	-	-	-	-	-	6.194		
Logistics Cost																				
Recurring Cost																				
Logistics	-	-	0.000	-	-	0.000	-	-	0.237	-	-	0.338	-	-	-	-	-	0.338		
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	0.237	-	-	0.338	-	-	-	-	-	0.338		
<i>Subtotal: Logistics Cost</i>	-	-	0.000	-	-	0.000	-	-	0.237	-	-	0.338	-	-	-	-	-	0.338		
Support Cost																				
CASB Spare Part Kits	-	-	0.000	-	-	0.000	-	-	0.000	18.810	21	0.395	-	-	-	18.810	21	0.395		
CASB - M48A1 Filters	-	-	0.000	1.163	86	0.100	-	-	0.000	1.169	124	0.145	-	-	-	1.169	124	0.145		
Technical Support	-	-	0.000	-	-	0.000	-	-	0.504	-	-	0.739	-	-	-	-	-	0.739		
Program Management	-	-	0.000	-	-	0.000	-	-	0.302	-	-	0.432	-	-	-	-	-	0.432		
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.100	-	-	0.806	-	-	1.711	-	-	-	-	-	1.711		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020																
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> JP1112 / CHEMICAL BIOLOGICAL AIRCRAFT SURVIVABILITY BARRIER (CASB)																
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B													<b>MDAP/MAIS Code:</b>																
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																													
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>													
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>											
Gross/Weapon System Cost	-	-	0.000	-	-	0.750	-	-	5.040	-	-	8.243	-	-	-	-	-	8.243											

**Remarks:**

The Chemical Biological Aircraft Survivability Barrier (CASB) will protect the interior of DOD's airlift assets from incidental cross-contamination by Chemical and Biological (CB)-contaminated personnel and equipment under transport. The United States Special Operations Command (USSOCOM) requirement is to sustain tactical force operations with the focus on regenerating multiple sorties intra-theater before transitioning to inter-theater redeployment. This tactical arm of airpower is comprised of high-demand, low-density, and expensive assets. The loss of any single asset from a CB contamination event would result in the effective loss of that asset because there are no approved decontamination solutions and/or standards by which assets could be effectively returned to unrestricted service.

Justification: FY21 procures an additional 62 CASB systems along with technical, engineering, and fielding support to meet the USSOCOM service requirement.

RDT&E Code B Item: 0604384BP/Proj CO5

CO5/CASB: RDT&E FY2018 and Prior - 2.660Million; FY2019 - 2.809 Million; FY2020 - 0.877 Million

**DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES**

CASB - Capabilities Production Document: Nov 2018

CASB - Milestone C: Jan 2020

CASB - IOC: Dec 2020

CASB - FOC: Jun 2022

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation					Item Number / Title [DODIC]: JP1112 / CHEMICAL BIOLOGICAL AIRCRAFT SURVIVABILITY BARRIER (CASB)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
NS CASB System		2019	Integrated Solutions for Systems (IS4S) / Huntsville, AL	C / CPFF	ACC-APG, Natick, MA	Jul 2019	Feb 2020	6	108.333	Y		Jun 2018
CASB System <sup>(†)</sup>		2020	Integrated Solutions for Systems (IS4S) / Huntsville, AL	C / CPFF	ACC-APG, Natick, MA	Jul 2020	Dec 2020	40	99.925	Y		Jun 2018
CASB System <sup>(†)</sup>		2021	Integrated Solutions for Systems (IS4S) / Huntsville, AL	C / CPFF	ACC-APG, Natick, MA	Jul 2021 <sup>(27)</sup>	Dec 2021	62	99.903	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

USSOCOM codified a FY19 requirement via Special Category (SPECAT) message in May 2018 for 6 Non-Standard CASB (NS-CASB) systems in response to real-world emerging threats.

**Footnotes:**

<sup>(27)</sup> (Option)

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																					Date: February 2020											
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1										P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation										Item Number / Title [DODIC]: JP1112 / CHEMICAL BIOLOGICAL AIRCRAFT SURVIVABILITY BARRIER (CASB)												
Cost Elements (Units in Each)					Fiscal Year 2019															Fiscal Year 2020												BALANCE
O C O #	M F R	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
CASB System																																
	1	2020	CBDP	40	0	40																						A -	-	-	-	40
Secondary Distribution		SOCOM		40	0	40																						A -	-	-	-	40
	1	2021	CBDP	62	0	62																										62
Secondary Distribution		SOCOM		62	0	62																										62
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																					Date: February 2020																								
Appropriation / Budget Activity / Budget Sub Activity:																					Item Number / Title [DODIC]:																								
03000D / 03 / 1																					JP1112 / CHEMICAL BIOLOGICAL AIRCRAFT SURVIVABILITY BARRIER (CASB)																								
Cost Elements (Units in Each)																					Fiscal Year 2021																								
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Fiscal Year 2021												Fiscal Year 2022												B A L A N C E														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P															
CASB System																																													
1	2020	CBDP	40	0	40	-	-	4	4	4	4	4	4	4	4	4	4	4	4											0															
Secondary Distribution	SOCOM		40	0	40	-	-	4	4	4	4	4	4	4	4	4	4	4	4											0															
1	2021	CBDP	62	0	62															A -	-	-	-	-	5	5	5	5	5	5	12														
Secondary Distribution	SOCOM		62	0	62															A -	-	-	-	-	5	5	5	5	5	5	12														
																					O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program																				Date: February 2020																							
Appropriation / Budget Activity / Budget Sub Activity:																				Item Number / Title [DODIC]:																							
03000D / 03 / 1																				JP1112 / CHEMICAL BIOLOGICAL AIRCRAFT SURVIVABILITY BARRIER (CASB)																							
Cost Elements (Units in Each)																				Fiscal Year 2024																							
O C O #	M F  FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Fiscal Year 2023																			B A L A N C E																		
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R		M A Y	J U N	J U L	A U G	S E P													
CASB System																				Calendar Year 2023																							
1	2020	CBDP	40	40	0																							0															
Secondary Distribution	SOCOM		40	40	0																							0															
1	2021	CBDP	62	50	12	5	5	2																					0														
Secondary Distribution	SOCOM		62	50	12	5	5	2																					0														
																				O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P

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Exhibit P-21, Production Schedule: PB 2021 Chemical and Biological Defense Program										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1				P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation						Item Number / Title [DODIC]: JP1112 / CHEMICAL BIOLOGICAL AIRCRAFT SURVIVABILITY BARRIER (CASB)			
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Integrated Solutions for Systems (IS4S) - Huntsville, AL	2	5	12	0	9	5	14	0	9	5	14	

**Remarks:**

Production rates are monthly for all manufacturers

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation										<b>Item Number / Title [DODIC]:</b> JX0005 / DOD BIOLOGICAL VACCINE PROCUREMENT (VACCINES)							
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B													<b>MDAP/MAIS Code:</b>							
<b>Resource Summary</b>			<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>						
Procurement Quantity ( <i>Units in Each</i> )						-		-		-		-		-						
Gross/Weapon System Cost (\$ in Millions)						0.368		0.183		0.173		0.000		-			0.000			
Less PY Advance Procurement (\$ in Millions)						-		-		-		-		-			-			
Net Procurement (P-1) (\$ in Millions)						0.368		0.183		0.173		0.000		-			0.000			
Plus CY Advance Procurement (\$ in Millions)						-		-		-		-		-			-			
<b>Total Obligation Authority</b> (\$ in Millions)						<b>0.368</b>		<b>0.183</b>		<b>0.173</b>		<b>0.000</b>					<b>0.000</b>			
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																				
Initial Spares (\$ in Millions)						-		-		-		-		-			-			
Gross/Weapon System Unit Cost (\$ in Thousands)						-		-		-		-		-			-			
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																				
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>				
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)		
Package Fielding Cost																				
Recurring Cost																				
Prior/Future combined efforts	-	-	0.368	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000		
Vaccinia Immune Globulin-Support Costs	-	-	0.000	-	-	0.183	-	-	0.173	-	-	0.000	-	-	-	-	-	0.000		
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.368</b>	-	-	<b>0.183</b>	-	-	<b>0.173</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>		
<i>Subtotal: Package Fielding Cost</i>	-	-	<b>0.368</b>	-	-	<b>0.183</b>	-	-	<b>0.173</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>		
Gross/Weapon System Cost	-	-	0.368	-	-	0.183	-	-	0.173	-	-	0.000	-	-	-	-	-	0.000		
<b>Remarks:</b>																				
The Biological Vaccine Procurement Program ensures the Department of Defense (DoD) capability to acquire and stockpile adequate quantities of all Biological Warfare (BW) vaccines to protect the programmed force against validated BW agents. Items currently in the stockpile are the Food and Drug Administration (FDA) licensed Anthrax Vaccine Adsorbed (AVA), Smallpox vaccine, and Vaccinia Immune Globulin Intravenous (VIGIV). Funding supports vaccine and licensed biologic production, quality assurance and control, equipment validation, process change management, documentation control, and all FDA license maintenance and post-approval commitments (Phase 4 clinical trials). The annual vaccination program for the Services is funded by the Defense Health Program.																				
Justification: There is no FY21 PB Request. The Chemical Biological Defense Program (CBDP) FY 2021 funding request was reduced by \$4.262 million during the Defense-Wide Review (DWR) to account for programs Recombinant Botulinum A/B Vaccine (VAC BOT), Recombinant Plague (VAC PLG), and Smallpox VIGIV being terminated.																				

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> JX0005 / DOD BIOLOGICAL VACCINE PROCUREMENT (VACCINES)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B RDT&E Code B Item: 0604384BP/Proj MB5		<b>MDAP/MAIS Code:</b>
MB5/VAC BOT: RDT&E FY2018 and Prior - 379.014Million; FY2019 - 34.649 Million; FY2020 - 40.499 Million MB5/VAC PLG: RDT&E FY2018 and Prior - 408.623Million; FY2019 - 43.496 Million; FY2020 - 26.956 Million		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation										<b>Item Number / Title [DODIC]:</b> MA0400 / PROTECTIVE CLOTHING (JSLIST)						
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)							5.000		2.140		2.000		0.000		-		0.000		
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
Net Procurement (P-1) (\$ in Millions)							5.000		2.140		2.000		0.000		-		0.000		
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-		
<b>Total Obligation Authority</b> (\$ in Millions)							5.000		2.140		2.000		0.000		-		0.000		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)							-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	
Hardware Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	5.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
PROTECTIVE SUIT - JSLIST Garment(t)	-	-	0.000	0.351	5,552	1.950	0.299	6,525	1.950	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Recurring Cost</i>	-	-	5.000	-	-	1.950	-	-	1.950	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Hardware Cost</i>	-	-	5.000	-	-	1.950	-	-	1.950	-	-	0.000	-	-	-	-	-	0.000	
Package Fielding Cost																			
Recurring Cost																			
Packaging Sealers	-	-	0.000	-	-	0.190	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.190	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Package Fielding Cost</i>	-	-	0.000	-	-	0.190	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
Support Cost																			
Production Lot Testing (PLT)	-	-	0.000	-	-	0.000	-	-	0.050	-	-	0.000	-	-	-	-	-	0.000	
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.000	-	-	0.050	-	-	0.000	-	-	-	-	-	0.000	
Gross/Weapon System Cost	-	-	5.000	-	-	2.140	-	-	2.000	-	-	0.000	-	-	-	-	-	0.000	
<b>Remarks:</b>																			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> MA0400 / PROTECTIVE CLOTHING (JSLIST)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
The Joint Service Lightweight Integrated Suit Technology (JSLIST) is a Joint Service chemical protective ensemble and production program. The protective clothing program integrates technological improvements in protective military garments, providing service members Chemical and Biological (CB) protection in all combat theaters. The JSLIST provides state-of-the-art chemical percutaneous protection as well as reduced heat stress, weight and bulk with increased durability and improved fit over fielded legacy systems. In addition, the JSLIST provides commonality and standardization by fielding the same suit to the Joint Forces.		

(†) indicates the presence of a P-5a

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation						<b>Item Number / Title [DODIC]:</b> MA0400 / PROTECTIVE CLOTHING (JSLIST)			
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
PROTECTIVE SUIT - JSLIST Garment		2019	ReadyOne Industries / El Paso, TX	C / FFP	DLA Troop Support, Philadelphia, PA	Dec 2019	Jan 2021	5,552	0.351	Y		
PROTECTIVE SUIT - JSLIST Garment		2020	ReadyOne Industries / El Paso, TX	C / FFP	DLA Troop Support, Philadelphia, PA	Jul 2020	Jul 2021	6,525	0.299	Y		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation												<b>Item Number / Title [DODIC]:</b> MA0401 / CBRN UNIFORM INTEGRATED PROTECTION ENSEMBLE (UIPE)			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A												<b>MDAP/MAIS Code:</b>						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>			
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-			
Gross/Weapon System Cost (\$ in Millions)							26.107		12.264		14.984		1.492		-		1.492	
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-	
Net Procurement (P-1) (\$ in Millions)							26.107		12.264		14.984		1.492		-		1.492	
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-	
<b>Total Obligation Authority</b> (\$ in Millions)							26.107		12.264		14.984		1.492		-		1.492	
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares (\$ in Millions)							-		-		-		-		-		-	
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-	
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	17.547	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
UIPE 1 - Ensembles - FRP(t)	0.449	19,061	8.560	0.503	16,000	8.053	0.846	15,450	13.070	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Recurring Cost</i>	-	-	26.107	-	-	8.053	-	-	13.070	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Hardware Cost</i>	-	-	26.107	-	-	8.053	-	-	13.070	-	-	0.000	-	-	-	-	-	0.000
Logistics Cost																		
Recurring Cost																		
Contractor Logistics Support	-	-	0.000	-	-	0.472	-	-	0.000	-	-	0.857	-	-	-	-	-	0.857
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.472	-	-	0.000	-	-	0.857	-	-	-	-	-	0.857
<i>Subtotal: Logistics Cost</i>	-	-	0.000	-	-	0.472	-	-	0.000	-	-	0.857	-	-	-	-	-	0.857
Support Cost																		
Ancillary Equipment	-	-	0.000	-	-	0.000	-	-	0.100	-	-	0.000	-	-	-	-	-	0.000
Production Lot Testing	-	-	0.000	-	-	0.219	-	-	0.140	-	-	0.000	-	-	-	-	-	0.000
Program Management	-	-	0.000	-	-	2.663	-	-	1.574	-	-	0.535	-	-	-	-	-	0.535
Engineering Support	-	-	0.000	-	-	0.857	-	-	0.100	-	-	0.100	-	-	-	-	-	0.100
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	3.739	-	-	1.914	-	-	0.635	-	-	-	-	-	0.635

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Exhibit P-5, Cost Analysis: PB 2021 Chemical and Biological Defense Program													Date: February 2020												
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> MA0401 / CBRN UNIFORM INTEGRATED PROTECTION ENSEMBLE (UIPE)												
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>												
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																									
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>									
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)							
Gross/Weapon System Cost	-	-	26.107	-	-	12.264	-	-	14.984	-	-	1.492	-	-	-	-	-	1.492							

**Remarks:**

The Uniform Integrated Protection Ensemble (UIPE) Increment 1 is a Chemical, Biological, Radiological, Nuclear (CBRN) protective system offering the capability to select a tailored material solution based on the expected threat level commensurate with operational mission requirements. Where appropriate, a family of systems approach that meets the scope of UIPE individual protection capability needs will be utilized. The objective of UIPE is to fully integrate CBRN and toxic industrial material (TIM) protections into an ensemble, identical in fit and form to the combat uniform (including ancillary equipment, mask - helmet integration, and protective boots and gloves), thus negating the need for separate protective ensemble components. This integrated protection approach will result in increased warfighter operational performance in a CBRN environment. The UIPE program will develop, integrate, test, procure and field incremental capability solutions that are modular in function and offer improvements in form and fit over current systems; the program will explore trade-space in areas such as protection level, heat stress, durability, antimicrobial properties, flame resistance, launderability, self-detoxification, and protection time in order to provide capabilities that afford maximum utility to the warfighter. Where appropriate modeling and simulation tools will be used to lower UIPE program risks, reduce costs, and ensure a high confidence in selected technologies. UIPE Increment 1 is aimed specifically at providing enhanced individual protection capabilities to the warfighter through reduction of physiological and psychological effects associated with CBRN protective garment thermal burden, weight, and bulk. The UIPE program will consider modernization in order to ensure that the warfighter retains access to state of the art capability to support future operational mission requirements. The UIPE Increment 1 protective system offers the capability to select a tailored material solution based on the expected threat level commensurate with operational mission requirements. This ability to tailor the type and level of the protective system will result in optimized protection, thereby minimizing physiological and psychological burdens associated with the weight, bulk, thermal strain, and encumbrance of wearing CBRN protective equipment on the Warfighter and affording the lowest impact on the operational mission.

Justification: FY21 begins the program close-out process, ramping the production and contract activities down until complete in FY22.

(†) indicates the presence of a P-5a

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation					Item Number / Title [DODIC]: MA0401 / CBRN UNIFORM INTEGRATED PROTECTION ENSEMBLE (UIPE)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
UIPE 1 - Ensembles - FRP		2018	Tennessee Apparel Corporation / Tullahoma, TN	C / FFP	RDECOM, Natick, MA	Nov 2017 <sup>(28)</sup>	Mar 2018	19,061	0.449	Y		
UIPE 1 - Ensembles - FRP		2019	Tennessee Apparel Corporation / Tullahoma, TN	C / FFP	RDECOM, Natick, MA	Dec 2018 <sup>(29)</sup>	Jan 2019	16,000	0.503	Y		
UIPE 1 - Ensembles - FRP		2020	Tennessee Apparel Corporation / Tullahoma, TN	C / FFP	RDECOM, Natick, MA	Nov 2019	Dec 2019	15,450	0.522	Y		

**Footnotes:**

(28) Delivery Order

(29) Delivery Order

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation												<b>Item Number / Title [DODIC]:</b> PHM008 / CBRN UNIFORM INGRTD PRTCTN ENSEMBLE FAMILY OF SYSTEMS (UIPE FOS)			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B												<b>MDAP/MAIS Code:</b>						
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>			
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-			
Gross/Weapon System Cost (\$ in Millions)							0.000		0.000		1.946		0.000		-		0.000	
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-	
Net Procurement (P-1) (\$ in Millions)							0.000		0.000		1.946		0.000		-		0.000	
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-	
<b>Total Obligation Authority</b> (\$ in Millions)							0.000		0.000		1.946		0.000		-		0.000	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																		
Initial Spares (\$ in Millions)							-		-		-		-		-		-	
Gross/Weapon System Unit Cost (\$ in Thousands)							-		-		-		-		-		-	
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)
Hardware Cost																		
Recurring Cost																		
UIPE FoS Air: Air suits (CBRL) <sup>(†)</sup>	-	-	0.000	-	-	0.000	1.000	1,626	1.626	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	0.000	-	-	0.000	-	-	1.626	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Hardware Cost	-	-	0.000	-	-	0.000	-	-	1.626	-	-	0.000	-	-	-	-	-	0.000
Support Cost																		
UIPE FoS Air: Surveillance Testing	-	-	0.000	-	-	0.000	-	-	0.061	-	-	0.000	-	-	-	-	-	0.000
UIPE FoS Air: New Equipment Training	-	-	0.000	-	-	0.000	-	-	0.062	-	-	0.000	-	-	-	-	-	0.000
UIPE FoS Air: Program Management Support	-	-	0.000	-	-	0.000	-	-	0.197	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	-	-	0.000	-	-	0.000	-	-	0.320	-	-	0.000	-	-	-	-	-	0.000
Gross/Weapon System Cost	-	-	0.000	-	-	0.000	-	-	1.946	-	-	0.000	-	-	-	-	-	0.000
<b>Remarks:</b>																		
The Uniform Integrated Protection Ensemble (UIPE) Family of Systems (FoS) will develop a family of systems that will provide the Warfighter percutaneous protection from operationally relevant traditional and non-traditional Chemical, Biological, Radiological, Nuclear (CBRN) threats. The family of systems will be developed based on Service Mission Areas with the goal being to minimize operational burden and provide improved fit, function, and integration with the current Warfighter kits compared to legacy systems. The acquisition strategy allows for multiple decision points throughout product development, which																		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> PHM008 / CBRN UNIFORM INGRTD PRTCTN ENSEMBLE FAMILY OF SYSTEMS (UIPE FOS)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
provides flexibility to accelerate mature commercial-off the-shelf/non-developmental item solutions and fully develop less mature solutions. UIPE FoS and the Services identified a mature solution to meet the Air Mission Area requirements - the United States Air Force's Chemical, Biological, Radiological Layer (CBRL), which is a part of the Integrated Aircrew Ensemble (IAE).		
Justification: There is no FY21 PB request. In FY21 and beyond, UIPE FoS transitions to UIPE FoS General Purpose (GP) (Item Number PHM033), UIPE FoS Air (Item Number PHM034) and UIPE FoS Gloves (Item Number PHM032). The four Mission Areas are: Land, Air, Sea, and Homeland Defense. Each of the Mission Areas has unique mission requirements that the UIPE FoS GP, Air and Gloves solutions will fulfill.		
RDT&E Code B Item: 0603884BP/Proj IP4; 0604384BP/Proj IP5  IP4/UIPE FOS: RDT&E ; FY2019 - 3.172 Million; FY2020 - 1.997 Million IP5/UIPE FOS: RDT&E ; FY2019 - 6.952 Million; FY2020 - 8.137 Million		
<b>DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES</b>		
UIPE FOS - Air MRA: Feb 2020 UIPE FOS - Air MS C: Mar 2020 UIPE FOS - Air LRIP/USAF Fielding Decision: Mar 2020 UIPE FOS - Air USN/USMC Initial OT&E (Jan 2020 to Mar 2020) UIPE FOS - Air Production Award: Apr 2020 UIPE FOS - Land Design Trade Space Analysis (Apr 2020 to Dec 2020) UIPE FOS - Air Operational Test Agency Evaluation Report (OER): Aug 2020		
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation								<b>Item Number / Title [DODIC]:</b> PHM008 / CBRN UNIFORM INGRTD PRTCTN ENSEMBLE FAMILY OF SYSTEMS (UIPE FOS)	
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
UIPE FoS Air: Air suits (CBRL)		2020	TBD / N/A	C / FFP	TBD	Apr 2020	Oct 2020	1,626	1.000	Y		Jan 2020

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation												<b>Item Number / Title [DODIC]:</b> PHM033 / UNIFORM INTEGRATED PROTECTIVE ENSEMBLE GENERAL PURPOSE (UIPE FOS GP)				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B												<b>MDAP/MAIS Code:</b>							
<b>Resource Summary</b>				<b>Prior Years</b>		<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>					
Procurement Quantity ( <i>Units in Each</i> )				-		-		-		-		-		-					
Gross/Weapon System Cost (\$ in Millions)				0.000		0.000		0.000		1.543		-		1.543					
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-					
Net Procurement (P-1) (\$ in Millions)				0.000		0.000		0.000		1.543		-		1.543					
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-					
<b>Total Obligation Authority</b> (\$ in Millions)				0.000		0.000		0.000		1.543		-		1.543					
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																			
Initial Spares (\$ in Millions)				-		-		-		-		-		-					
Gross/Weapon System Unit Cost (\$ in Thousands)				-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	
Hardware Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
TATPE <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	11.890	100	1.189	-	-	-	11.890	100	1.189	
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.189	-	-	-	-	-	1.189	
<i>Subtotal: Hardware Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.189	-	-	-	-	-	1.189	
Logistics Cost																			
Recurring Cost																			
Fielding Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.075	-	-	-	-	-	0.075	
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.075	-	-	-	-	-	0.075	
<i>Subtotal: Logistics Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.075	-	-	-	-	-	0.075	
Support Cost																			
Engineering Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.152	-	-	-	-	-	0.152	
Production Lot Testing	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.127	-	-	-	-	-	0.127	
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.279	-	-	-	-	-	0.279	
Gross/Weapon System Cost	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.543	-	-	-	-	-	1.543	
Remarks:																			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> PHM033 / UNIFORM INTEGRATED PROTECTIVE ENSEMBLE GENERAL PURPOSE (UIPE FOS GP)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
In FY21, UIPE FoS transitions to UIPE FoS General Purpose (GP), UIPE FoS Air and UIPE FoS Gloves. The four Mission Areas are: Land, Air, Sea, and Homeland Defense. Each of the Mission Areas has unique mission requirements that the UIPE FoS GP, Air and Gloves solutions fulfill.		
UIPE FoS GP will provide a family of systems that will give the Warfighter percutaneous protection from operationally relevant traditional, non-traditional, and advanced Chemical, Biological, Radiological, Nuclear (CBRN)/Toxic Industrial Material (TIM) threats likely to be encountered during joint force operations. The family of systems is being developed based on agreed upon Service Mission Areas of which there are four: Land, Sea, Air, and Homeland Defense. Each of the Mission Areas have unique mission requirements that the combined UIPE FoS solutions will fulfill. The overarching goal of each of the four Mission Areas is to minimize operational burden and provide improved form, fit, function, and integration with the current Warfighter kits compared to legacy systems. The Tactical All-Hazards Threat Protective Ensemble (TATPE) will be a subset to the UIPE FoS GP and capitalize on the protection factor of commercial Level A with design modifications to align with the necessary operational imperatives to eliminate this risk paradox. This suit serves as an additional tool in the arsenal until technology matures to the point of delivering a similar capability applied against the range of military operations in all environments under all conditions. The TATPE will provide United States Special Operations Command (USSOCOM) a solution for a range of military operations in all environments under all conditions.		
Justification: FY21 funds will procure 100 complete Tactical All-Hazards Threat Protective Ensemble (TATPE) suits to begin the production line, establish New Equipment Training, and reserve initial quantities for Surveillance testing.		
RDT&E Code B Item: 0603884BP/Proj IP4; 0604384BP/Proj IP5		
IP4/UIPE FOS GP: RDT&E ; FY2021 - 1.989 Million; FY2022 - 2.983 Million IP5/UIPE FOS GP: RDT&E ; FY2021 - 7.278 Million; FY2022 - 7.326 Million; FY2023 - 6.730 Million; FY2024 - 3.140 Million		
DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES		
UIPE FOS GP - Initial Operational Capability (IOC): Sep 2023 UIPE FOS GP - Full Operational Capability (FOC): Sep 2024 UIPE FOS GP - TATPE Milestone C: Jan 2021 UIPE FOS GP - TATPE Production Contract Award: Jan 2021 UIPE FOS GP - TATPE IOC: Sep 2021 UIPE FOS GP - TATPE FOC: Sep 2024		
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation					Item Number / Title [DODIC]: PHM033 / UNIFORM INTEGRATED PROTECTIVE ENSEMBLE GENERAL PURPOSE (UIPE FOS GP)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
TATPE		2021	TBD / N/A	TBD	TBD	Mar 2021	Jun 2021	100	11.890	Y		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation										<b>Item Number / Title [DODIC]:</b> PHM034 / UNIFORM INTEGRATED PROTECTION ENSEMBLE FOS AIR (UIPE FOS AIR)							
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B													<b>MDAP/MAIS Code:</b>							
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>					
Procurement Quantity ( <i>Units in Each</i> )							-		-		-		-		-					
Gross/Weapon System Cost (\$ in Millions)							0.000		0.000		0.000		4.786		-		4.786			
Less PY Advance Procurement (\$ in Millions)							-		-		-		-		-		-			
Net Procurement (P-1) (\$ in Millions)							0.000		0.000		0.000		4.786		-		4.786			
Plus CY Advance Procurement (\$ in Millions)							-		-		-		-		-		-			
<b>Total Obligation Authority</b> (\$ in Millions)							0.000		0.000		0.000		4.786		-		4.786			
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																				
Initial Spares (\$ in Millions)									-		-		-		-		-			
Gross/Weapon System Unit Cost (\$ in Thousands)									-		-		-		-		-			
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																				
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>				
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> ( <i>Each</i> )	<b>Total Cost</b> (\$ M)		
Hardware Cost																				
Recurring Cost																				
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000		
UIPE FOS AIR - Air Suits (CBRL) <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	1.000	3,860	3.860	-	-	-	1.000	3,860	3.860		
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	3.860	-	-	-	-	-	3.860		
<i>Subtotal: Hardware Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	3.860	-	-	-	-	-	3.860		
Support Cost																				
SME Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.260	-	-	-	-	-	0.260		
New Equipment Training	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.030	-	-	-	-	-	0.030		
Program Management	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.606	-	-	-	-	-	0.606		
Production Lot Testing	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.030	-	-	-	-	-	0.030		
<i>Subtotal: Support Cost</i>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.926	-	-	-	-	-	0.926		
<b>Gross/Weapon System Cost</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>4.786</b>	-	-	-	-	-	<b>4.786</b>		
<b>Remarks:</b>																				
In FY21, UIPE FoS transitions to UIPE FoS General Purpose (GP), UIPE FoS Air and UIPE FoS Gloves. The four Mission Areas are: Land, Air, Sea, and Homeland Defense. Each of the Mission Areas has unique mission requirements that the UIPE FoS GP, Air and Gloves solutions fulfill.																				

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> PHM034 / UNIFORM INTEGRATED PROTECTION ENSEMBLE FOS AIR (UIPE FOS AIR)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
The Uniform Integrated Protection Ensemble (UIPE) Air falls under the UIPE Family of Systems (FoS) program whose aim is to develop a family of systems that will provide the Warfighter percutaneous protection from operationally relevant traditional and non-traditional Chemical, Biological, Radiological, Nuclear (CBRN) threats. UIPE FoS and the Services identified a mature solution to meet the Air Mission Area requirements - the United States Air Force's Chemical, Biological, Radiological Layer (CBRL), which is a part of the Integrated Aircrew Ensemble (IAE). There is high confidence in the CBRL meeting the requirements for the Services. The Air Mission Area suit will provide United States Air Force (USAF), United States Navy (USN), and United States Marine Corps (USMC) a percutaneous solution for tactical/ejection seat, Rotary Wing, and non-ejection Fixed Wing platforms. The family of systems is being developed based on Service mission areas with the goal of minimizing operational burden and provide improved fit, function, and integration with the current Warfighter kits compared to legacy systems. The Mission Areas are: Land, Sea, Air, and Homeland Defense.		
Justification: FY21 funds will procure 3,860 Air Mission Area Chemical, Biological, Radiological Layer (CBRL) Suits, continue New Equipment Training (NET), and reserve quantities for surveillance testing.		
DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES		
UIPE FOS AIR - Capability Development Document (CDD): May 2019 UIPE FOS AIR - Request for Proposal (RFP): Dec 2019 UIPE FOS AIR - Milestone C: Mar 2020 UIPE FOS AIR - Low Rate Initial Production (LRIP) USAF: Mar 2020 UIPE FOS AIR - Full Rate Production (FRP) USN/USMC: Mar 2021 UIPE FOS AIR - Initial Operational Capability: Sep 2022 UIPE FOS AIR - Full Operational Capability (FOC): Mar 2029		
(†) indicates the presence of a P-5a		

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation								<b>Item Number / Title [DODIC]:</b> PHM034 / UNIFORM INTEGRATED PROTECTION ENSEMBLE FOS AIR (UIPE FOS AIR)	
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
UIPE FOS AIR - Air Suits (CBRL)		2021	TBD / N/A	C / FFP	TBD	Feb 2021 <sup>(30)</sup>	Mar 2021	3,860	1.000	Y		
<b>Remarks:</b> The FY21 UIPE FOS AIR award is an option on the contract awarded under UIPE FOS (PHM008).												
<b>Footnotes:</b> <sup>(30)</sup> (Option)												

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program												<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation												<b>Item Number / Title [DODIC]:</b> PHM018 / SPU RAPID CAPABILITY DEVELOPMENT AND DEMO (SPU RCDD)			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B												<b>MDAP/MAIS Code:</b>						
<b>Resource Summary</b>				<b>Prior Years</b>		<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>				
Procurement Quantity ( <i>Units in Each</i> )				-		-		-		-		-		-				
Gross/Weapon System Cost (\$ in Millions)				0.000		0.000		4.610		5.965		-		5.965				
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-				
Net Procurement (P-1) (\$ in Millions)				0.000		0.000		4.610		5.965		-		5.965				
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-				
<b>Total Obligation Authority</b> (\$ in Millions)				0.000		0.000		4.610		5.965		-		5.965				
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares (\$ in Millions)				-		-		-		-		-		-				
Gross/Weapon System Unit Cost (\$ in Thousands)				-		-		-		-		-		-				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Rapid Austere Environment Sample Preparation Apparatus <sup>(†)</sup>	-	-	0.000	-	-	0.000	0.330	1,721	0.568	0.331	121	0.040	-	-	-	0.331	121	0.040
Modular PAPR <sup>(†)</sup>	-	-	0.000	-	-	0.000	1.573	1,000	1.573	1.501	980	1.471	-	-	-	1.501	980	1.471
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	0.000	-	-	2.141	-	-	1.511	-	-	-	-	-	1.511
Non Recurring Cost																		
Chemical Biological Ground Mobility Barrier (GMB) <sup>(†)</sup>	-	-	0.000	-	-	0.000	100.000	6	0.600	-	-	0.000	-	-	-	-	-	0.000
Chemical Warfare Agent Device Packaging (CWA DP) <sup>(†)</sup>	-	-	0.000	-	-	0.000	10.000	10	0.100	-	-	0.000	-	-	-	-	-	0.000
Cascade (Air Jam Compressor with CBRN filter) <sup>(†)</sup>	-	-	0.000	-	-	0.000	33.333	6	0.200	-	-	0.000	-	-	-	-	-	0.000

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020													
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> PHM018 / SPU RAPID CAPABILITY DEVELOPMENT AND DEMO (SPU RCDD)													
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B													<b>MDAP/MAIS Code:</b>													
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																										
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>										
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>								
Contaminated Waste Mitigation System <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	40.000	5	0.200	-	-	-	40.000	5	0.200								
Modernized Gloves <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	0.050	987	0.049	-	-	-	0.050	987	0.049								
Modernized Socks (IFS) <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	0.050	987	0.049	-	-	-	0.050	987	0.049								
Micro PAPR <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	1.000	600	0.600	-	-	-	1.000	600	0.600								
AP-PPE Suits <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	2.000	987	1.974	-	-	-	2.000	987	1.974								
SPU RCDD Equipment	-	-	0.000	-	-	0.000	-	-	0.693	-	-	0.000	-	-	-	-	-	0.000								
<i>Subtotal: Non Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>1.593</b>	-	-	<b>2.872</b>	-	-	-	-	-	<b>2.872</b>								
<i>Subtotal: Hardware Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>3.734</b>	-	-	<b>4.383</b>	-	-	-	-	-	<b>4.383</b>								
Package Fielding Cost																										
Non Recurring Cost																										
JHBI three9-ISP Assays <sup>(†)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	0.893	800	0.714	-	-	-	0.893	800	0.714								
<i>Subtotal: Non Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.714</b>	-	-	-	-	-	<b>0.714</b>								
<i>Subtotal: Package Fielding Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.714</b>	-	-	-	-	-	<b>0.714</b>								
Support Cost																										
Technical Support	-	-	0.000	-	-	0.000	-	-	0.600	-	-	0.586	-	-	-	-	-	0.586								
Program Management	-	-	0.000	-	-	0.000	-	-	0.276	-	-	0.282	-	-	-	-	-	0.282								
<i>Subtotal: Support Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>0.876</b>	-	-	<b>0.868</b>	-	-	-	-	-	<b>0.868</b>								
<i>Gross/Weapon System Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.000</b>	-	-	<b>4.610</b>	-	-	<b>5.965</b>	-	-	-	-	-	<b>5.965</b>								
<b>Remarks:</b>																										
Special Purpose Unit Rapid Capability Development and Deployment (SPU RCDD) works with elements of the Joint Special Operations Command (JSOC), select elements from across the Special Operations Forces (SOF) Enterprise such as Combatant Commanders' Response Forces (CRFs) and other Joint Force enabling units such as the 20th Chemical, Biological, Radiological, Nuclear and Explosives Command to identify near term mission critical capability gaps needed for mission success. Solutions for these identified gaps are needed in a short timeframe and require the use of rapid acquisition strategies to meet the needs of the User. Specific requirements may consist of individual protective (suits, boots, gloves, or mask), detection, decontamination, or collective protection needs.																										

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> PHM018 / SPU RAPID CAPABILITY DEVELOPMENT AND DEMO (SPU RCDD)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B		<b>MDAP/MAIS Code:</b>
Justification: FY21 Program funding will allow for the rapid response to near-term and emergent chemical-biological defensive capability requirements of JSOC, as well as select elements of the SOF Enterprise such as the CRFs and other Joint Force enabling units such as the 20th Chemical, Biological, Radiological, Nuclear and Explosives Command to include the Contaminated Waste Mitigation System (CWMS), Rapid Austere Environment Sample Preparation (RASP), Modernized Gloves and Socks, Micro Powered Air Purifying Respirator (PAPR), Modular PAPR, and All Purpose-Personal Protective Ensemble (AP-PPE) Suits.		
RDT&E Code B Item: 0604384BP/Proj IP5; 0607384BP/Proj IP7  IP5/SPU RCDD: RDT&E ; FY2020 - 3.399 Million; FY2021 - 4.537 Million; FY2022 - 4.581 Million; FY2023 - 4.573 Million; FY2024 - 4.573 Million; FY2025 - 4.574 Million IP7/SPU RCDD: RDT&E ; FY2020 - 2.994 Million; FY2021 - 3.462 Million; FY2022 - 3.397 Million; FY2023 - 3.378 Million; FY2024 - 3.379 Million; FY2025 - 3.379 Million		
DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES  SPU RCDD - Development Efforts (Oct 2019 to Sep 2025) SPU RCDD - IFS Modernization (Oct 2019 to Sep 2020) SPU RCDD - CB Protective Glove Modernization (Oct 2019 to Sep 2020)		
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation					Item Number / Title [DODIC]: PHM018 / SPU RAPID CAPABILITY DEVELOPMENT AND DEMO (SPU RCDD)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Rapid Austere Environment Sample Preparation Apparatus		2020	Design West Technologies / Tustin, CA	C / FFP	ACC-APG, Natick, MA	Mar 2020	Apr 2020	1,721	0.330	Y		
Rapid Austere Environment Sample Preparation Apparatus		2021	Design West Technologies / Tustin, CA	C / FFP	ACC-APG, Natick, MA	Oct 2020 <sup>(31)</sup>	Apr 2021	121	0.331	Y		
Modular PAPR		2020	D. Wheatley Enterprises Inc. / Belcamp, MD	SS / FP	ACC-APG, Natick, MA	Jun 2020	Sep 2020	1,000	1.573	Y		
Modular PAPR		2021	D. Wheatley Enterprises Inc. / Belcamp, MD	SS / FP	ACC-APG, Natick, MA	Feb 2021 <sup>(32)</sup>	Sep 2021	980	1.501	Y		
Chemical Biological Ground Mobility Barrier (GMB)		2020	Integrated Solutions for Systems (IS4S) / Huntsville, AL	SS / FFP	ACC-APG, Natick, MA	Jun 2020	Nov 2020	6	100.000	Y		
Chemical Warfare Agent Device Packaging (CWA DP)		2020	Saint Gobain / Merrimack, NH	SS / FFP	ACC-APG, Natick, MA	Jul 2020	Sep 2020	10	10.000	Y		
Cascade (Air Jam Compressor with CBRN filter)		2020	Edgewood Chemical Biological Center (ECBC) / Aberdeen Proving Ground, MD	MIPR	ACC-APG, Natick, MA	Jul 2020	Sep 2020	6	33.333	Y		
Contaminated Waste Mitigation System		2021	TBD / N/A	C / FPIF	ACC-APG, Natick, MA	Nov 2020	Apr 2021	5	40.000	Y		
Modernized Gloves		2021	TBD / N/A	C / FFP	ACC-APG, Natick, MA	Dec 2020	Jun 2021	987	0.050	Y		
Modernized Socks (IFS)		2021	TBD / N/A	C / FFP	ACC-APG, Natick, MA	Dec 2020	May 2021	987	0.050	Y		
Micro PAPR		2021	TBD / N/A	TBD	ACC-APG, Natick, MA	Feb 2021	Oct 2021	600	1.000	Y		
AP-PPE Suits		2021	TBD / N/A	C / FFP	ACC-APG, Natick, MA	Dec 2020	May 2021	987	2.000	Y		
JHBI three9-ISP Assays		2021	Biomeme / Philadelphia, PA	C / FFP	ACC-APG, Natick, MA	Aug 2021	Oct 2021	800	0.893	Y		

**Footnotes:**

<sup>(31)</sup> (Option)

<sup>(32)</sup> (Option)

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation										<b>Item Number / Title [DODIC]:</b> PHM035 / MODERNIZATION DECONTAMINATION (MODPROT DE)						
ID Code (A=Service Ready, B=Not Service Ready) : A													MDAP/MAIS Code:						
<b>Resource Summary</b>			<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>					
Procurement Quantity ( <i>Units in Each</i> )						-		-		-		-		-					
Gross/Weapon System Cost (\$ in Millions)						0.000		0.000		0.000		0.880		-			0.880		
Less PY Advance Procurement (\$ in Millions)						-		-		-		-		-			-		
Net Procurement (P-1) (\$ in Millions)						0.000		0.000		0.000		0.880		-			0.880		
Plus CY Advance Procurement (\$ in Millions)						-		-		-		-		-			-		
<b>Total Obligation Authority</b> (\$ in Millions)						<b>0.000</b>		<b>0.000</b>		<b>0.000</b>		<b>0.880</b>		<b>-</b>			<b>0.880</b>		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares (\$ in Millions)						-		-		-		-		-			-		
Gross/Weapon System Unit Cost (\$ in Thousands)						-		-		-		-		-			-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>			
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	
Hardware Cost																			
Recurring Cost																			
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000	
Engine Purchase(t)	-	-	0.000	-	-	0.000	-	-	0.000	10.000	30	0.300	-	-	-	10.000	30	0.300	
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>0.300</i>	-	-	-	-	-	<i>0.300</i>	
<i>Subtotal: Hardware Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>0.300</i>	-	-	-	-	-	<i>0.300</i>	
Support Cost																			
Modification Work Order (MWO)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.275	-	-	-	-	-	0.275	
Logistics Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.193	-	-	-	-	-	0.193	
Program Management	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.112	-	-	-	-	-	0.112	
<i>Subtotal: Support Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>0.580</i>	-	-	-	-	-	<i>0.580</i>	
Gross/Weapon System Cost	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>0.000</i>	-	-	<i>0.880</i>	-	-	-	-	-	<i>0.880</i>	
<b>Remarks:</b>																			
Modernization Protection Decontamination (MODPROT DE) projects address procurement actions associated with modernization efforts on hazard mitigation systems. The M26 Joint Service Transportable Decontamination System - Small Scale (JSTDSS-SS) provides the capability to conduct operational and thorough decontamination of medium-to-large mobile or fixed equipment and aircraft. The M26 replaced the M-17 series decontamination systems. The engine on the M26 system is no longer available for procurement prior to the end of the planned system life. To address this Diminishing Manufacturing Source/Material Shortage (DMSMS) issue, a qualified alternative engine will be procured and a Modification Work Order (MWO) will be performed to replace obsolete engines with modernized engines on fielded M26																			

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program		<b>Date:</b> February 2020
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1	<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation	<b>Item Number / Title [DODIC]:</b> PHM035 / MODERNIZATION DECONTAMINATION (MODPROT DE)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
systems without a current means for repair or replacement. The MWO will execute removal and replacement of the obsolete engines for M26 systems that have not yet reached the end of their useful life to support Joint Service modernization requirements.		
Justification: FY21 funds will procure 30 modernized engines to replace obsolete engines on fielded M26 systems.		
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2021 Chemical and Biological Defense Program								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1			P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation						Item Number / Title [DODIC]: PHM035 / MODERNIZATION DECONTAMINATION (MODPROT DE)			
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Engine Purchase		2021	TBD / N/A	C / FFP	TBD	Apr 2021	Nov 2021	30	10.000	Y		

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation										<b>Item Number / Title [DODIC]:</b> R12301 / CB PROTECTIVE SHELTER (CBPS)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A													<b>MDAP/MAIS Code:</b>					
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2019</b>		<b>FY 2020</b>		<b>FY 2021 Base</b>		<b>FY 2021 OCO</b>		<b>FY 2021 Total</b>			
Procurement Quantity ( <i>Units in Each</i> )				-			-		-		-		-		-			
Gross/Weapon System Cost (\$ in Millions)				33.161			17.673		22.622		0.000		-		0.000			
Less PY Advance Procurement (\$ in Millions)				-			-		-		-		-		-			
Net Procurement (P-1) (\$ in Millions)				33.161			17.673		22.622		0.000		-		0.000			
Plus CY Advance Procurement (\$ in Millions)				-			-		-		-		-		-			
<b>Total Obligation Authority</b> (\$ in Millions)				<b>33.161</b>			<b>17.673</b>		<b>22.622</b>		<b>0.000</b>		<b>-</b>		<b>0.000</b>			
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares (\$ in Millions)				-			-		-		-		-		-			
Gross/Weapon System Unit Cost (\$ in Thousands)				-			-		-		-		-		-			
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>		
	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$ K)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	27.218	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
CBPS UP-ARMORED <sup>(†)</sup>	990.500	6	5.943	952.375	8	7.619	888.875	8	7.111	-	-	0.000	-	-	-	-	-	0.000
Government Furnished Material	-	-	0.000	-	-	0.229	-	-	0.874	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Recurring Cost</i>	-	-	<b>33.161</b>	-	-	<b>7.848</b>	-	-	<b>7.985</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>
<i>Subtotal: Hardware Cost</i>	-	-	<b>33.161</b>	-	-	<b>7.848</b>	-	-	<b>7.985</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>
Package Fielding Cost																		
Recurring Cost																		
Total Package Fielding (spares)	-	-	0.000	-	-	0.803	-	-	4.479	-	-	0.000	-	-	-	-	-	0.000
<i>Subtotal: Recurring Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.803</b>	-	-	<b>4.479</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>
<i>Subtotal: Package Fielding Cost</i>	-	-	<b>0.000</b>	-	-	<b>0.803</b>	-	-	<b>4.479</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>
Logistics Cost																		
Recurring Cost																		
Care of Supplies in Storage	-	-	0.000	-	-	2.565	-	-	0.496	-	-	0.000	-	-	-	-	-	0.000
Initial Spares	-	-	0.000	-	-	0.319	-	-	2.000	-	-	0.000	-	-	-	-	-	0.000

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<b>Exhibit P-5, Cost Analysis:</b> PB 2021 Chemical and Biological Defense Program													<b>Date:</b> February 2020					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1				<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation									<b>Item Number / Title [DODIC]:</b> R12301 / CB PROTECTIVE SHELTER (CBPS)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:														
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2019</b>			<b>FY 2020</b>			<b>FY 2021 Base</b>			<b>FY 2021 OCO</b>			<b>FY 2021 Total</b>		
	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$ K)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
Reliability, Availability, Maintainability (RAM) Re-Testing	-	-	0.000	-	-	0.372	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Integrated Logistics Support	-	-	0.000	-	-	0.708	-	-	0.752	-	-	0.000	-	-	-	-	-	0.000
New Equipment Training	-	-	0.000	-	-	1.187	-	-	2.021	-	-	0.000	-	-	-	-	-	0.000
<i><b>Subtotal: Recurring Cost</b></i>	-	-	<b>0.000</b>	-	-	<b>5.151</b>	-	-	<b>5.269</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>
<i><b>Subtotal: Logistics Cost</b></i>	-	-	<b>0.000</b>	-	-	<b>5.151</b>	-	-	<b>5.269</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>
<b>Support Cost</b>																		
Engineering Change Proposal	-	-	0.000	-	-	0.120	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Engineering Support	-	-	0.000	-	-	1.789	-	-	1.650	-	-	0.000	-	-	-	-	-	0.000
Management Support	-	-	0.000	-	-	1.962	-	-	3.239	-	-	0.000	-	-	-	-	-	0.000
<i><b>Subtotal: Support Cost</b></i>	-	-	<b>0.000</b>	-	-	<b>3.871</b>	-	-	<b>4.889</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>
<b>Gross/Weapon System Cost</b>	-	-	<b>33.161</b>	-	-	<b>17.673</b>	-	-	<b>22.622</b>	-	-	<b>0.000</b>	-	-	-	-	-	<b>0.000</b>
<b>Remarks:</b>																		
The Chemical and Biological Protective Shelter (CBPS) satisfies the Services need for a highly mobile, self-contained collective protection system which can provide a contamination free working area for Echelon I and II medical treatment facilities and other selected units. The system consists of a Collectively Protected (CP) shelter modularized and integrated into a service selected prime-mover. The system is completely self contained, self powered, mobile, and adaptable to a variety of missions. CBPS relieves medical, combat service, and combat service support personnel from wearing chemical and biological protective clothing. The system is capable of operating continuously for 72 hours providing a contamination free environmentally controlled working area.																		
Defense-Wide Review (DWR): The Chemical Biological Defense Program (CBDP) FY 2021 funding request was reduced by \$7.574 million to account for program being terminated.																		
Note: Other Service Funding: Other Procurement, Army (OPA), Budget Activity 03, Budget Sub Activity 10, Line Item 4516M01001 procures 8 CBPS M8E1 systems in FY19 and 3 CBPS M8E1 systems in FY20.																		
P5: Unit costs for CBPS will increase or decrease depending on the number of systems procured each year.																		
(†) indicates the presence of a P-5a																		

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<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2021 Chemical and Biological Defense Program								<b>Date:</b> February 2020				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 0300D / 03 / 1			<b>P-1 Line Item Number / Title:</b> 8001PH1000 / CB Protection & Hazard Mitigation						<b>Item Number / Title [DODIC]:</b> R12301 / CB PROTECTIVE SHELTER (CBPS)			
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
CBPS UP-ARMORED		2018	Pine Bluff Arsenal / Pine Bluff, AR	PO	Not Applicable	Jan 2018	Mar 2019	6	990.500	Y		
CBPS UP-ARMORED		2019	Pine Bluff Arsenal / Pine Bluff, AR	PO	Not Applicable	Dec 2018	Jan 2020	8	869.750	Y		
CBPS UP-ARMORED		2020	Pine Bluff Arsenal / Pine Bluff, AR	PO	Not Applicable	Jan 2020	Jan 2021	8	1,041.875	Y		

**Remarks:**

FY20 unit cost increase attributed to standard inflation and reduction in total yearly production quantities between PDW and OPA funds.

In FY21 and beyond, the Defense-Wide Review (DWR) reduced this program for higher priorities.

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