Department of Defense
Fiscal Year (FY) 2022 Budget Estimates

May 2021

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
Fiscal Year 2022 Budget 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. CB threats remain significant and are expanding at an exponentially accelerated pace due to the convergence of multiple sciences and rapid technological developments, the last year has demonstrated the critical need for responsive biodefense capabilities to address these rapid changes. In recognition of this strategic context, the 2020 CBDP Enterprise Strategy established four strategic goals to improve Warfighter readiness and lethality and to align with other Departmental reforms. These are: ***plan for the future fight***, ***deliver at speed***, ***drive innovation***, and ***optimize the enterprise***. The strategy synchronizes CBDP processes and actions to ensure the Enterprise keeps pace with departmental reforms and stays ahead of threats, while delivering timely and effective CB defense capabilities to the Joint Force. The office of the Deputy Assistant Secretary of Defense for Chemical and Biological Defense (ODASD(CBD)) continues to work across the Department to clarify roles and responsibilities, strengthen domestic and international partnerships, anticipate emerging CB threats, close today's gaps, and rapidly mitigate vulnerabilities, specifically challenges highlighted by the ongoing COVID-19 pandemic.

Strategic Overview

The *2021 Interim National Security Strategic Guidance (INSSG)*, *2018 National Defense Strategy (NDS)*, and *2018 National Biodefense Strategy (NBS)* acknowledge 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 and convergences in science and technology. The INSSG acknowledges that nuclear weapons and other weapons of mass destruction (WMD) all pose profound and, in some cases, existential dangers. Furthermore, the NDS prioritizes efforts to prevent WMD proliferation, defend the homeland from WMD, and manage the consequences of WMD attacks. The INSSG also highlights a renewed emphasis on the risks that biological threats, whether natural, accidental, or manmade, pose to our national security. The growing complexity of the threat space in biotechnology, engineering, and computational science create challenges for the Joint Force and may threaten the US' enduring advantages. The increased willingness of threat actors to use CB weapons to coerce, compel, or gain a tactical advantage is alarming and demonstrates the erosion of longstanding international norms against using these weapons. The proliferation of knowledge and technology, difficulty in detecting illicit activities, rise of advanced and emerging threats and improved delivery capabilities, and our limited ability to anticipate how adversaries could employ WMD, heighten the risk of attacks against the U.S. or its allies.

At the same time, science and technology advances increases the threat of an adversary biological weapons attack intended to appear as a naturally occurring disease outbreak. It is imperative that DoD prepare and is able to respond across the full spectrum of biological threats. The DoD's COVID-19 pandemic responses identified gaps in authorities and organizational structures to support necessary response efforts. The CBDP efforts are nested with Departmental partners as they continue to pursue opportunities to strengthen biodefense responsibilities and efforts across DoD stakeholders and the U.S. government.

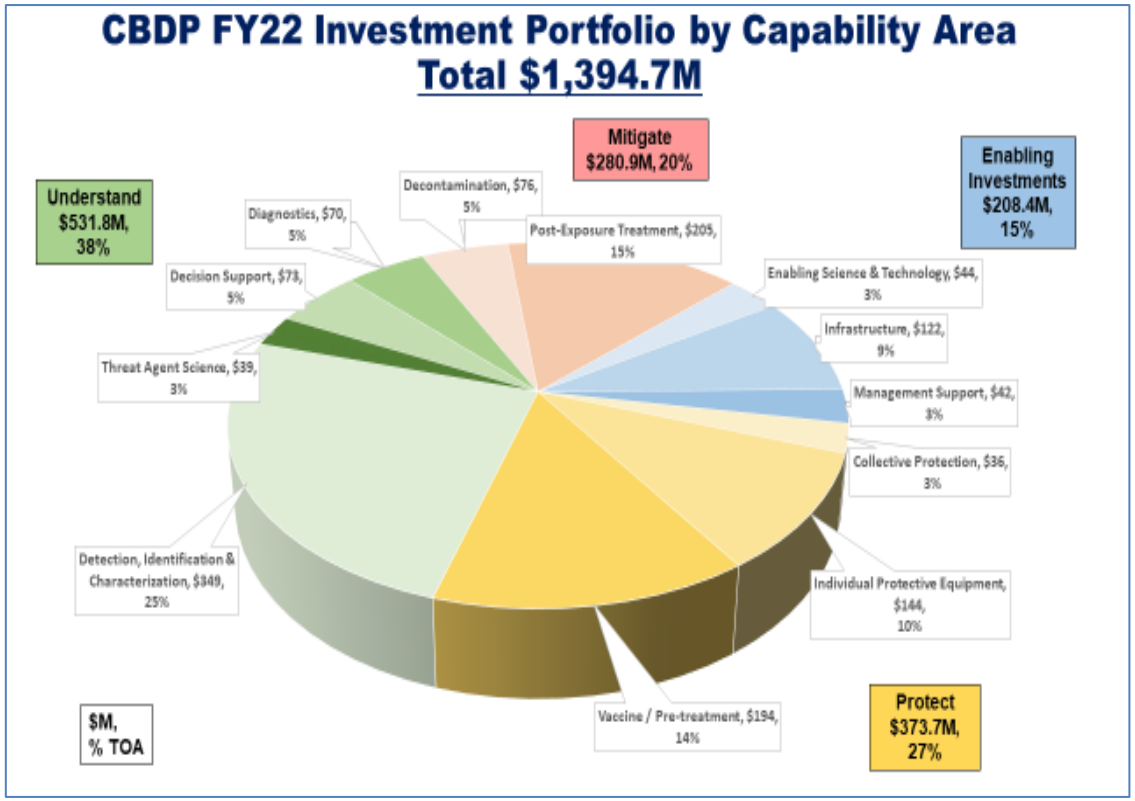
As noted in the INSSG, however, the acceleration of science and technology "poses both peril and promise." These changes create opportunities for the CB defense enterprise to leverage innovation and integrate the collective knowledge to rapidly field adaptive solutions to mitigate threats. Additionally, the technology to develop countermeasures for both naturally occurring and intentional CB incidents continues to merge, providing opportunities to gain efficiencies and reduce potential duplication of effort.

Considering the international security environment and national security objectives, the vision and mission of the CBDP is a Joint Force ready to fight and win in CB-contested environments through a coordinated effort designed to neutralize adversarial CB threats. The CBDP will achieve this through anticipation of future threats and delivery of capabilities that enable the Joint Force. These capabilities are part of an integrated and layered defense approach that addresses emerging threat conditions and leverages countering weapons of mass destruction (CWMD) missions that support operations ranging from major combat operations to domestic incident responses.

FY 2022 Portfolio Overview

The FY 2022 budget request of $1.4 billion supports the INSSG, NDS and the DoD Strategy for CWMD, including the 2020 CBDP Enterprise Strategy, and will enable the continued development of capabilities to increase the resiliency of our warfighters and support efforts to understand, protect, and mitigate CB incidents and hazards. The CBDP investments are aligned to the following portfolios:

- Understand Portfolio ($531.8M) - Reduces the risk from emerging threats resulting from advances in technology and the increased proliferation of WMD to prevent surprise to the Department and the nation. Efforts focus on accelerating characterization and early assessment of possible CB hazards by leveraging advances in technology and artificial intelligence. Capabilities development seeks to improve tactical and operational commanders' decisions through improved detection, diagnosis and identification capabilities to support assigned missions. Developmental efforts focus on increasing detection accuracy, range and effectiveness, ensuring that data integrates seamlessly with other non-CB sensor systems and relevant information systems, and integration of sensors onto Service-fielded unmanned platforms.



- Protect Portfolio ($373.7M) – 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. 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 capabilities for known and emerging threats. Developmental efforts focus on advanced medical countermeasures that provide safe and effective medical defenses against biological agents (bacteria, toxins, and viruses), emerging infectious diseases, and chemical agents.

- Mitigate Portfolio ($280.9M) – 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.

- Enabling Investments ($208.4M) – Provides fundamental knowledge, dedicated infrastructure, technology demonstrations, and overarching RDT&E support functions as portfolio enablers key to responding to emerging threats. Dedicated funding in this portfolio supports National and Departmental incident response and preparedness to CB threats.

Countering Emerging Threats

The CBDP is reforming to address the current and future threat landscape while building an agile and adaptable program to ensure execution of Department priorities. Understanding and anticipating emerging threats is central to the CBDP's contribution to implement the NDS and address the threats posed by our adversaries.

The FY2022 budget request continues this pivot towards efforts focusing on countering emerging threats. This includes additional investments focused on countering emerging threats, to include;

- Initiation of a rapid response capability for repurposing FDA approved drug therapies for CB considerations and continues investments that build on COVID-19 response successes for added agility in our MCM development capabilities.
- Establishes an emerging threat innovation fund to expand S&T efforts focused on advancing novel technologies and research towards addressing gaps against current and future threats.
- Expands characterization and understanding for threat agent sciences.
- Increases investments on MCM platform and manufacturing technologies to streamline and accelerate product delivery and reduce developmental risk against known and unknown biological threats.
- Increased fielding of modernized capabilities to improve detection and identification against current and emerging threats, including fourth generation agents.

FY 2022 Budget Request Highlights

The FY 2022 Research, Development, Test and Evaluation (RDT&E) budget request of $1,037.6 million supports key efforts including:

- $219.0 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.

- $205.8 million to continue support of research and development of Medical Countermeasures (MCMs), such as vaccines and therapeutics, addressing high-priority biological hazards.

- $134.3 million supporting improved domestic incident preparedness and response to include dedicated efforts improving capabilities to address potential future pandemic and biological incidents. Includes focused investments

on MCM platform and manufacturing technologies to streamline and accelerate product delivery and reduce developmental risk. Additionally, these resources provide dedicated funding towards the DoD Medical Countermeasures Advanced Development and Manufacturing capability.

- $105.0 million to continue support of research and development of MCMs focused on protecting against and treating exposure to traditional and non-traditional chemical agents.

- $82.1 million supporting RDT&E for personnel protection, respiratory and ocular protection, collective protection, and hazard mitigation capabilities against traditional and non-traditional CB agents.

- $74.0 million supporting basic research and threat agent sciences, advancing fundamental knowledge and experimental research in the life and physical sciences.

- $71.1 million supporting integrated early warning, biosurveillance, warning & reporting, decision support, and modeling and simulation capabilities.

- $70.8 million to support critical CB defense research, development, and test infrastructure and operations.

- $35.8 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. Resources a dedicated innovation fund to rapidly address emerging threats.

- The FY 2022 Procurement budget request of $357.2 million supports key efforts including:

  - $64 million to procure 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. Systems provide rapid response capabilities to the Joint Force to analyze current and emerging chemical and biological threats.

  - $60 million to procure improved air crew and ground forces protective ensembles to increase protection against advanced chemical and biological threats and decrease physiological burden.

- $57 million to procure modernized respiratory and ocular protection for ground and air forces supporting increased protection against advanced chemical and biological threats and a decrease in the physiological burden.

- $26 million to procure Joint Biological Aircraft Decontamination Systems providing large U.S. Air Force airframes the capability to decontaminate the interior and exterior of critical aircraft from biological threats.

- $23 million to procure modernized collective protection capabilities (Joint Expeditionary Collective Protection, and CB Aircraft Survivability Barrier).

- $22 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.

- $22 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.

Summary

Because the proliferation of WMD is among the greatest challenges facing the United States of America, the Department must prioritize improving our ability to counter these new and emerging threats. Currently, the erosion of international norms regarding the use of CB weapons, acceleration and advances in science and technology, and the re-emergence of strategic competition all worsen the current CB threat environment. Amid this new technological revolution, the United States must continue modernizing our defensive capabilities and reinvest in the Department's scientific and technological edge. Accordingly, this budget enables the CBDP to increase the lethality of the Joint Force by ensuring they can fight and win in CB-contested environments and prevent any advantage against the United States and our allies and partners.

BEHIND THE WARFIGHTER. AHEAD OF THE THREAT.

Footnotes

FY 2020 Actuals

Includes Division A, Title IX and X of the Consolidated Appropriations Act, 2020 (P.L. 116-93), Division F, Title IV and V from the Further Consolidated Appropriations Act, 2020 (P.L. 116-94) and the Coronavirus Aid, Relief, and Economic Security Act (P.L. 116-136).

FY 2021 Enacted

Includes Division C, Title IX and Division J, Title IV of the Consolidated Appropriations Act, 2021 (P.L. 116-260).

Defense-Wide
FY 2022 President's Budget
Exhibit P-1 FY 2022 President's Budget
Total Obligational Authority
(Dollars in Thousands)

05 May 2021

Appropriation	FY 2020 Actual*	FY 2021 Enacted**	FY 2022 Request
Procurement, Defense-Wide	342,206	292,775	357,183
Total Defense-Wide	342,206	292,775	357,183

Defense-Wide
FY 2022 President's Budget
Exhibit P-1 FY 2022 President's Budget
Total Obligational Authority
(Dollars in Thousands)

05 May 2021

Organization: Procurement, Defense-Wide	FY 2020 Actual*	FY 2021 Enacted**	FY 2022 Request
Chemical and Biological Defense Program, CBDP	342,206	292,775	357,183
Total	342,206	292,775	357,183

Defense-Wide
FY 2022 President's Budget
Exhibit P-1 FY 2022 President's Budget
Total Obligational Authority
(Dollars in Thousands)

05 May 2021

Appropriation: Procurement, Defense-Wide

Budget Activity	FY 2020 Actual*	FY 2021 Enacted**	FY 2022 Request
03. Chemical/Biological Defense	342,206	292,775	357,183
Total Procurement, Defense-Wide	342,206	292,775	357,183

Defense-Wide
FY 2022 President's Budget
Exhibit P-1 FY 2022 President's Budget
Total Obligational Authority
(Dollars in Thousands)

05 May 2021

Appropriation: 0300D Procurement, Defense-Wide

Line No	Item Nomenclature	Ident Code	FY 2020 Actual* Quantity	FY 2020 Actual* Cost	FY 2021 Enacted** Quantity	FY 2021 Enacted** Cost	FY 2022 Request Quantity	FY 2022 Request Cost	Sec
Budget Activity 03: Chemical/Biological Defense									
CBDP									
79	Chemical Biological Situational Awareness	A		163,440		144,023		167,918	U
80	CB Protection & Hazard Mitigation	A		178,766		148,752		189,265	U
Total Chemical/Biological Defense				342,206		292,775		357,183	
Total Procurement, Defense-Wide				342,206		292,775		357,183	

P-122BAS: FY 2022 President's Budget (Total Base Published Version), as of May 5, 2021 at 16:29:15

Line Item Table of Contents (by Appropriation then Line Number)

Appropriation 0300D: Procurement, Defense-Wide

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

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Exhibit P-40, Budget Line Item Justification: PB 2022 Chemical and Biological Defense Program	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 03: Chemical/Biological Defense / BSA 1: CBDP	**P-1 Line Item Number / Title:** 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		

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,741.838	163.440	144.023	167.918	-	167.918	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,741.838	163.440	144.023	167.918	-	167.918	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,741.838**	**163.440**	**144.023**	**167.918**	**-**	**167.918**	**-**	**-**	**-**	**-**	**-**	**-**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Situational Awareness (Understand) Portfolio will 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.

Exhibit P-40, Budget Line Item Justification: PB 2022 Chemical and Biological Defense Program	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 03: Chemical/Biological Defense / BSA 1: CBDP	**P-1 Line Item Number / Title:** 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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*	Quantity / Total Cost *(Each) / ($ M)*
P-5	SA0050 / CBRN SUPPORT TO C2 (CSC2)		B		- / 0.000	- / 0.000	- / 0.000	- / 1.750	- / -	- / 1.750
P-5	MX0001 / JOINT BIO TACTICAL DETECTION SYSTEM (JBTDS)	P-5a	B		- / 0.000	- / 0.000	- / 0.000	- / 17.060	- / -	- / 17.060
P-5	SA0017 / MULTIPHASE CHEMICAL AGENT DETECTOR (MPCAD)	P-5a, P-21	A		- / 0.000	- / 0.000	- / 0.000	- / 9.302	- / -	- / 9.302
P-5	G47101 / JOINT WARNING & REPORTING NETWORK (JWARN)		A		- / 101.089	- / 0.942	- / 0.000	- / 0.000	- / -	- / 0.000
P-5	JC0208 / JOINT EFFECTS MODEL (JEM)		A		- / 30.082	- / 1.189	- / 0.000	- / 0.000	- / -	- / 0.000
P-5	JF0100 / JOINT CHEMICAL AGENT DETECTOR (JCAD)	P-5a	A		- / 386.919	- / 2.246	- / 0.000	- / 0.000	- / -	- / 0.000
P-5	SA0042 / JOINT CHEM AGENT DETECTOR SOLID LIQUID ADAPTORS (JCAD SLA)	P-5a, P-21	A		- / 0.000	- / 0.000	- / 6.972	- / 15.089	- / -	- / 15.089
P-5	JF0108 / JOINT HANDHELD BIO-AGENT IDENTIFIER (JHBI)	P-5a	B		- / 2.462	- / 1.557	- / 0.000	- / 2.835	- / -	- / 2.835
P-5	JM8788 / NEXT GENERATION DIAGNOSTICS SYSTEM (NGDS)		A		- / 50.483	- / 1.418	- / 0.970	- / 1.290	- / -	- / 1.290
P-5	SA0044 / NEXT GEN DIAG 2 MAN PORTABLE DIAGNOSTIC SYSTEM (NGDS 2 MPDS)	P-5a	B		- / 0.000	- / 0.000	- / 0.455	- / 4.624	- / -	- / 4.624
P-5	JS0005 / COMMON ANALYTICAL LABORATORY SYSTEM (CALS)	P-5a, P-21	A		- / 85.381	- / 7.293	- / 37.173	- / 64.708	- / -	- / 64.708
P-5	SA0025 / ANALYTICAL LABORATORY SYSTEM MODIFICATION (ALS MOD)	P-5a	A		- / 0.000	- / 55.158	- / 27.335	- / 1.056	- / -	- / 1.056
P-5	JS0007 / SPU CBE CHEMICAL BIOLOGICAL INCIDENT RESPONSE FORCE (SPU CBE CBIRF)	P-5a	A		- / 5.007	- / 1.089	- / 1.083	- / 0.000	- / -	- / 0.000
P-5	JS5230 / MODERNIZATION CBRN INFORMATION SYSTEMS (MOD CBRN IS)		B		- / 2.808	- / 0.081	- / 0.074	- / 0.611	- / -	- / 0.611
P-5	JX0210 / DEFENSE BIOLOGICAL PRODUCTS ASSURANCE PROGRAM (DBPAP)		A		- / 28.002	- / 2.961	- / 2.845	- / 2.760	- / -	- / 2.760
P-5	JX0301 / BIOSURVELLENCE PORTAL (BSP)		A		- / 6.443	- / 3.276	- / 0.000	- / 0.000	- / -	- / 0.000
P-5	MC0100 / JOINT NBC RECONNAISSANCE SYSTEM (JNBCRS)	P-5a	A		- / 423.426	- / 1.900	- / 0.000	- / 0.000	- / -	- / 0.000
P-5	MC0101 / CBRN DISMOUNTED RECONNAISSANCE SYSTEMS (CBRN DRS)	P-5a, P-21	A		- / 613.034	- / 58.020	- / 52.393	- / 21.799	- / -	- / 21.799
P-5	SA0003 / ENHANCED MARITIME BIOLOGICAL DETECTION (EMBD)	P-5a, P-21	A		- / 0.000	- / 13.643	- / 13.562	- / 21.473	- / -	- / 21.473
P-5	SA0005 / CBRN SENSOR INTEGRATION ON ROBOTIC PLATFORMS (CSIRP)	P-5a	B		- / 0.000	- / 1.747	- / 0.503	- / 3.561	- / -	- / 3.561
P-5	SA0006 / CBRN INFORMATION SYSTEMS (CBRN IS)		B		- / 1.716	- / 0.276	- / 0.512	- / 0.000	- / -	- / 0.000
P-5	SA0009 / MOUNTED MANNED PLATFORM RADIOLOGICAL DETECTION SYSTEM (MMPRDS)	P-5a	A		- / 0.000	- / 1.622	- / 0.000	- / 0.000	- / -	- / 0.000
P-5	SA0046 / MOUNTED ENHANCED RADIAC LONG RANGE IMAGING NETWORKABLE (MERLIN)		B		- / 0.000	- / 0.000	- / 0.146	- / 0.000	- / -	- / 0.000
P-5	SA0011 / RADIOLOGICAL DETECTION SYSTEM (RDS)	P-5a	A		- / 0.000	- / 4.065	- / 0.000	- / 0.000	- / -	- / 0.000
P-5	SA0012 / JOINT PERSONNEL DOSIMETER-INDIVIDUAL (JPD-I)	P-5a	A		- / 5.000	- / 4.957	- / 0.000	- / 0.000	- / -	- / 0.000
P-40	**Total Gross/Weapon System Cost**				**- / 1,741.838**	**- / 163.440**	**- / 144.023**	**- / 167.918**	**- / -**	**- / 167.918**

*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.

Exhibit P-40, Budget Line Item Justification: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 03: Chemical/Biological Defense / BSA 1: CBDP	**P-1 Line Item Number / Title:** 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		
Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.		

Justification:
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 Chemical Biological agent threat environment. Contamination Avoidance is necessary to maintain operational efficiency and minimize the need to decontaminate vehicles, equipment, and areas. Advanced 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).

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0050 / CBRN SUPPORT TO C2 (CSC2)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.000	1.750	-	1.750
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.000	1.750	-	1.750
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.000**	**1.750**	**-**	**1.750**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Software Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
CSC2 Software	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.750	-	-	-	-	-	1.750
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*1.750*	-	-	-	-	-	*1.750*
Subtotal: Software Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***1.750***	**-**	**-**	**-**	**-**	**-**	***1.750***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**1.750**	**-**	**-**	**-**	**-**	**-**	**1.750**

Remarks:

The CBRN Support to Command & Control (CSC2) is a follow on to the Enhanced Capability Demo Integrated Warning (IEW ECD) and CBRN IEW efforts that end in FY21 and are renamed to CSC2 starting in FY22. CSC2 Capability Development Packages will utilize agile acquisition processes to transition and integrate successful mature technologies into a baseline framework that ultimately enables risk based decision making. Annual software/hardware capability drops are requested and validated by all DoD services in the ODASD(CBD) Integrated Early Warning Campaign Plan and prioritized based on National Defense Strategy and National Military Strategy goals. Efforts within CSC2 are driven by service CBRN capability gaps that are identified on an annual basis and evaluated by CBDP stakeholders; possible solutions and applicable technologies within the CBDP will be experimented, integrated, networked, and deployed through rapid acquisition methods. CSC2 will utilize Table-Top exercises (TTX), Operational Demonstrations, and other venues to provide sensor interoperability and interdependence and integrated layered defense in order to increase readiness within the operational forces, ultimately reducing operational risk, increasing operational space, and decreasing decision support time required to give commanders the tactical edge necessary in the event that nefarious CBRN activity is taking place. Agile software development and software acquisition pathways will require the purchase of software or hardware items that will be used in deployment of applications, and tested and fielded as CSC2 work packages are further defined.

Justification: FY22 funds will procure necessary software required to rapidly deploy CSC2 capability sets based on Capability Development Packages.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0050 / CBRN SUPPORT TO C2 (CSC2)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** MX0001 / JOINT BIO TACTICAL DETECTION SYSTEM (JBTDS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.000	17.060	-	17.060
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.000	17.060	-	17.060
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.000**	**17.060**	**-**	**17.060**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
ARMY CONFIGURATION - Production Contract (Army)(†)	-	-	0.000	-	-	0.000	-	-	0.000	110.533	30	3.316	-	-	-	110.533	30	3.316
USMC CONFIGURATION - Production Contract (USMC)(†)	-	-	0.000	-	-	0.000	-	-	0.000	73.420	50	3.671	-	-	-	73.420	50	3.671
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*6.987*	-	-	-	-	-	*6.987*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***6.987***	**-**	**-**	**-**	**-**	**-**	***6.987***
Package Fielding Cost																		
Recurring Cost																		
ARMY CONFIGURATION - Initial Spares & Consumables (Army)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.155	-	-	-	-	-	0.155
ARMY CONFIGURATION - Fielding Support (Transportation, Training, Labor)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.014	-	-	-	-	-	0.014

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** MX0001 / JOINT BIO TACTICAL DETECTION SYSTEM (JBTDS)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
USMC CONFIGURATION - Fielding Support (Transportation, Training, Labor)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.024	-	-	-	-	-	0.024
USMC CONFIGURATION - Initial Spares & Consumables (USMC)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.260	-	-	-	-	-	0.260
Pine Bluff Arsenal (PBA) Integration and Storage	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.479	-	-	-	-	-	0.479
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.932*	-	-	-	-	-	*0.932*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.932***	**-**	**-**	**-**	**-**	**-**	***0.932***
Logistics Cost																		
Recurring Cost																		
OGA (Logistics & Combat Developer)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.800	-	-	-	-	-	0.800
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.800*	-	-	-	-	-	*0.800*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.800***	**-**	**-**	**-**	**-**	**-**	***0.800***
Support Cost																		
JPEO Program Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	2.342	-	-	-	-	-	2.342
OGA Support (T&E)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.726	-	-	-	-	-	1.726
PM Contract Engineering and MGMT Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.553	-	-	-	-	-	0.553
PM Govt Engineering and MGMT Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	2.547	-	-	-	-	-	2.547
Production Contract (Management)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.636	-	-	-	-	-	0.636
Production Contract (Eng Sup)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.537	-	-	-	-	-	0.537
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***8.341***	**-**	**-**	**-**	**-**	**-**	***8.341***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**17.060**	**-**	**-**	**-**	**-**	**-**	**17.060**

Remarks:
The JBTDS is the first tactical lightweight, low-cost biological surveillance system to detect, collect, and identify Biological Warfare Agent (BWA) aerosols. JBTDS components are man-portable, battery-operable and easy to employ by any military user. JBTDS provides notification of a hazard and enhances battle space awareness to protect and preserve the forces and is capable of archiving a sample for follow up

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness	Item Number / Title [DODIC]: MX0001 / JOINT BIO TACTICAL DETECTION SYSTEM (JBTDS)
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

analysis. When networked, JBTDS augments existing biological detection systems providing a theater-wide array capable of biological detection, identification and warning to support time sensitive force protection decisions. The JBTDS provides surface sampling capability which interfaces with the JBTDS identifier to support sensitive site exploitation missions. In FY20, JBTDS completed development of components and delivered systems for record test and evaluation, in FY21 JBTDS completes Low Rate Initial Production testing and FY22 will begin production for IOC quantities.

Justification: FY22 funds procure 30 JBTDS for the US Army, 50 JBTDS for USMC, as well as fielding, engineering, program management, and logistics support.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** MX0001 / JOINT BIO TACTICAL DETECTION SYSTEM (JBTDS)

Cost Elements	OCO	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
ARMY CONFIGURATION - Production Contract (Army)		2022	Chemring Detection Systems / Charlotte, NC	C / FFP	ACC-APG-NCD, Ft. Detrick, MD	Jun 2022 (1)	Nov 2022	30	113.867	Y		
USMC CONFIGURATION - Production Contract (USMC)		2022	Chemring Detection Systems / Charlotte, NC	C / FFP	ACC-APG-NCD, Ft. Detrick, MD	Jun 2022 (2)	Dec 2022	50	73.420	Y		

Remarks:
*Sole source contract (two options). One option for LRIP. One option for FRP.

*The different configurations of JBTDS between Army and USMC make for the different unit cost for each system.

Footnotes:
(1) (Option)
(2) (Option)

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0017 / MULTIPHASE CHEMICAL AGENT DETECTOR (MPCAD)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.000	9.302	-	9.302
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.000	9.302	-	9.302
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.000**	**9.302**	**-**	**9.302**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
MPCAD USAF UNITS - USAF - Hardware(†)	-	-	0.000	-	-	0.000	-	-	0.000	388.118	17	6.598	-	-	-	388.118	17	6.598
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*6.598*	-	-	-	-	-	*6.598*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***6.598***	**-**	**-**	**-**	**-**	**-**	***6.598***
Package Fielding Cost																		
Recurring Cost																		
MPCAD Fielding	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.152	-	-	-	-	-	0.152
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.152*	-	-	-	-	-	*0.152*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.152***	**-**	**-**	**-**	**-**	**-**	***0.152***
Logistics Cost																		
Recurring Cost																		
MPCAD Initial Spares/ Repairs/Consumables	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.476	-	-	-	-	-	0.476
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.476*	-	-	-	-	-	*0.476*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.476***	**-**	**-**	**-**	**-**	**-**	***0.476***
Support Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0017 / MULTIPHASE CHEMICAL AGENT DETECTOR (MPCAD)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
MPCAD - JPM Program Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.278	-	-	-	-	-	0.278
MPCAD - JPEO Program Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.488	-	-	-	-	-	0.488
MPCAD Program Management	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.310	-	-	-	-	-	1.310
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***2.076***	**-**	**-**	**-**	**-**	**-**	***2.076***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**9.302**	**-**	**-**	**-**	**-**	**-**	**9.302**

Remarks:

The Multi-Phase Chemical Agent Detector (MPCAD) is two-man portable system that will conduct near real-time, near-laboratory grade analysis of solid, liquid, and vapor samples collected by the operator in a presumptively contaminated area. The MPCAD results will support the Commander's tactical and operational decisions regarding maneuver, protection, decontamination, and treatment measures. The Army and Marine Corp will employ MPCAD in Dismounted Reconnaissance and Site Assessment missions to substantiate presumptive detector results. The Air Force will employ the MPCAD to support Post-Event Reconnaissance in support of Reconnaissance and Surveillance missions by monitoring the environment at airbases after a chemical release. The Air Force will continuously monitor contaminated areas for chronic health effects levels through analysis of samples from collectors deployed at the contamination site and brought back to the analyzer for identification and quantification. This information will support commander decisions to determine Mission Oriented Protective Posture (MOPP) levels and eventual termination of cordon restrictions.

Justification: FY22 will procure 17 MPCAD units including initial spares, conduct New Equipment Training (NET), program management support, initial Depot level support, and training materials. Units are required to initiate fielding the MPCAD to the Air Force.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness	Item Number / Title [DODIC]: SA0017 / MULTIPHASE CHEMICAL AGENT DETECTOR (MPCAD)

Cost Elements	OCO	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
MPCAD USAF UNITS - USAF - Hardware(†)		2022	TBD / N/A	C / FFP	ACC, APG, MD	Nov 2021	May 2022	17	388.118	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0017 / MULTIPHASE CHEMICAL AGENT DETECTOR (MPCAD)

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022														Calendar Year 2023									
OCO	MFR #	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	
MPCAD USAF UNITS - USAF - Hardware																															
	1	2022	CBDP	17	0	17		A -	-	-	-	-	-	3	3	3	4	4													0
Secondary Distribution			*AF*	*17*	*0*	*17*		*A -*	-	-	-	-	-	*3*	*3*	*3*	*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	

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0017 / MULTIPHASE CHEMICAL AGENT DETECTOR (MPCAD)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	TBD - N/A	2	2	10	0	1	6	7	0	1	5	6

Remarks:
MPCAD Production Contract award anticipated for 1QFY22 ** 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).

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** G47101 / JOINT WARNING & REPORTING NETWORK (JWARN)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	101.089	0.942	0.000	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	101.089	0.942	0.000	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**101.089**	**0.942**	**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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	101.089	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
JWARN 1 - Total Package Fielding	-	-	0.000	-	-	0.500	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*101.089*	-	-	*0.500*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***101.089***	**-**	**-**	***0.500***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Package Fielding Cost																		
Recurring Cost																		
JWARN 2 - System Fielding Support (TPF, FDT, NET)	-	-	0.000	-	-	0.442	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.442*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.442***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**101.089**	**-**	**-**	**0.942**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:
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

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** G47101 / JOINT WARNING & REPORTING NETWORK (JWARN)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

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.

Starting in FY21, JWARN will transition to sustainment under RDT&E Project IS7 (Information Systems) and close out development activities including software & installation, Total Package Fielding, New Equipment Training (NET), and Technical & Engineering Support.

Justification: There is no FY22 PB request.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JC0208 / JOINT EFFECTS MODEL (JEM)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	30.082	1.189	0.000	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	30.082	1.189	0.000	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**30.082**	**1.189**	**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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	30.082	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
JEM 2 - Total Package Fielding	-	-	0.000	-	-	0.500	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*30.082*	-	-	*0.500*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***30.082***	**-**	**-**	***0.500***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Software Cost																		
Recurring Cost																		
JEM 2 - Software & Installation	-	-	0.000	-	-	0.121	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.121*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Software Cost	**-**	**-**	***0.000***	**-**	**-**	***0.121***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Package Fielding Cost																		
Recurring Cost																		
JEM 2 - System Fielding Support (TFP, FDT, NET)	-	-	0.000	-	-	0.422	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.422*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.422***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JC0208 / JOINT EFFECTS MODEL (JEM)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
JEM 2 - Technical & Engineering Support	-	-	0.000	-	-	0.146	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.146***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**30.082**	**-**	**-**	**1.189**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:

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.

Starting in FY21, JEM will transition to sustainment under RDT&E Project IS7 (Information Systems) and close out development activities including software & installation, Total Package Fielding, New Equipment Training (NET), and Technical & Engineering Support.

Justification: There is no FY22 PB request.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JF0100 / JOINT CHEMICAL AGENT DETECTOR (JCAD)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	386.919	2.246	0.000	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	386.919	2.246	0.000	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**386.919**	**2.246**	**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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	386.919	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
JCAD SLA - Hardware(†)	-	-	0.000	9.570	100	0.957	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
JCAD SLA Spares	-	-	0.000	-	-	0.324	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
First Article Test (FAT) Support	-	-	0.000	-	-	0.201	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*386.919*	-	-	*1.482*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***386.919***	**-**	**-**	***1.482***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
Engineering Support (Govt)	-	-	0.000	-	-	0.473	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
System Fielding Support (Govt)	-	-	0.000	-	-	0.291	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.764***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**386.919**	**-**	**-**	**2.246**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:
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.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JF0100 / JOINT CHEMICAL AGENT DETECTOR (JCAD)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

FY20 JCAD Procurement is procuring JCAD Solid Liquid Adapters (JCAD SLA) for first article testing and initial fielding for United States Special Operations Command (USSOCOM) and Joint Services. 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: JCAD transitions to JCAD SLA in FY21 to continue procurement and fielding of the JCAD SLA as an additional Authorized List item to the M4A1 JCAD. Coordinating fulfillment of remaining JCAD requirements for Platform/Kit Integration via Other Service Funding or through PM Owned Stock Release.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness	Item Number / Title [DODIC]: JF0100 / JOINT CHEMICAL AGENT DETECTOR (JCAD)

Cost Elements	OCO	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 - Hardware		2020	Smiths Detection / Edgewood, MD	SS / FFP	RDECOM, APG, MD	Sep 2020	Jun 2021	100	9.570	Y		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	6.972	15.089	-	15.089
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	6.972	15.089	-	15.089
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**6.972**	**15.089**	**-**	**15.089**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
JCAD SLA - JCAD-SLA Hardware Procurement(†)	-	-	0.000	-	-	0.000	7.855	338	2.655	6.466	1,234	7.979	-	-	-	6.466	1,234	7.979
JCAD SLA - First Article Test Activites	-	-	0.000	-	-	0.000	-	-	0.725	-	-	0.000	-	-	-	-	-	0.000
JCAD SLA - Consumables and Spares	-	-	0.000	-	-	0.000	-	-	0.046	-	-	2.256	-	-	-	-	-	2.256
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*3.426*	-	-	*10.235*	-	-	-	-	-	*10.235*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***3.426***	**-**	**-**	***10.235***	**-**	**-**	**-**	**-**	**-**	***10.235***
Software Cost																		
Recurring Cost																		
JCAD SLA - Software Support	-	-	0.000	-	-	0.000	-	-	0.019	-	-	0.300	-	-	-	-	-	0.300
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.019*	-	-	*0.300*	-	-	-	-	-	*0.300*
Subtotal: Software Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.019***	**-**	**-**	***0.300***	**-**	**-**	**-**	**-**	**-**	***0.300***
Package Fielding Cost																		
Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
JCAD SLA - Contract Training and Support	-	-	0.000	-	-	0.000	-	-	0.357	-	-	0.000	-	-	-	-	-	0.000
System Fielding Support (Govt)	-	-	0.000	-	-	0.000	-	-	1.000	-	-	2.275	-	-	-	-	-	2.275
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*1.357*	-	-	*2.275*	-	-	-	-	-	*2.275*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***1.357***	**-**	**-**	***2.275***	**-**	**-**	**-**	**-**	**-**	***2.275***
Logistics Cost																		
Recurring Cost																		
JCAD SLA - Logistics Planning and Support	-	-	0.000	-	-	0.000	-	-	1.421	-	-	0.584	-	-	-	-	-	0.584
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*1.421*	-	-	*0.584*	-	-	-	-	-	*0.584*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***1.421***	**-**	**-**	***0.584***	**-**	**-**	**-**	**-**	**-**	***0.584***
Support Cost																		
Program Management Support	-	-	0.000	-	-	0.000	-	-	0.749	-	-	1.695	-	-	-	-	-	1.695
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.749***	**-**	**-**	***1.695***	**-**	**-**	**-**	**-**	**-**	***1.695***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**6.972**	**-**	**-**	**15.089**	**-**	**-**	**-**	**-**	**-**	**15.089**

Remarks:
The Joint Chemical Agent Detector Solid Liquid Adaptor (JCAD SLA) effort continues the development of the JCAD Chemical Explosives Detector (CED), which was previously a Next Generation Chemical Detection acceleration funded effort for SOCOM. The SLA interfaces with the fielded M4A1 JCAD to allow for solid and liquid sampling of Non-Traditional Agents, Pharmaceutical Based Agents, and explosives off surfaces. In addition, JCAD SLA is an explosive detector candidate for the Chemical, Biological, Radiological, and Nuclear Dismounted Reconnaissance System (CBRN DRS).

Note: FY21 TOA includes Congressional Plus Up ($2.5M).

Justification: FY22 funding procures 1234 JCAD SLAs, an Additional Authorized List (AAL) item to the M4A1 JCAD.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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 / FFP	ACC, APG, MD	Apr 2021	Dec 2021	338	7.855	Y		
JCAD SLA - JCAD-SLA Hardware Procurement(†)		2022	Smiths Detection / Edgewood, MD	SS / FFP	ACC, APG, MD	Jan 2022	Sep 2022	1,234	8.294	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021														Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	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	
JCAD SLA - JCAD-SLA Hardware Procurement																															
	1	2021	CBDP	338	0	338							A	-	-	-	-	-	-	-	338										0
Secondary Distribution			*ARMY*	*338*	*0*	*338*							*A*	-	-	-	-	-	-	-	*338*										*0*
	1	2022	CBDP	1,234	0	1,234																A	-	-	-	-	-	-	-	-	200	1,034
Secondary Distribution			*ARMY*	*1,234*	*0*	*1,234*																*A*	-	-	-	-	-	-	-	-	*200*	*1,034*

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023														Calendar Year 2024								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	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	
JCAD SLA - JCAD-SLA Hardware Procurement																														
	1	2021	CBDP	338	338	0																								0
Secondary Distribution			*ARMY*	*338*	*338*	*0*																								*0*
	1	2022	CBDP	1,234	200	1,034	200	200	200	200	200	34																		0
Secondary Distribution			*ARMY*	*1,234*	*200*	*1,034*	*200*	*200*	*200*	*200*	*200*	*34*																		*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	

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	Smiths Detection - Edgewood, MD	1	1	200	0	6	8	14	0	3	8	11

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).

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JF0108 / JOINT HANDHELD BIO-AGENT IDENTIFIER (JHBI)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2.462	1.557	0.000	2.835	-	2.835
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2.462	1.557	0.000	2.835	-	2.835
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2.462**	**1.557**	**0.000**	**2.835**	**-**	**2.835**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	2.462	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
HARDWARE - BIOMEME (THREE 9) - JHBI - Hardware - three9 (devices) SOF(†)	-	-	0.000	21.304	56	1.193	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
HARDWARE - BIOMEME (THREE 9) - JHBI Hardware three 9 (devices) USMC(†)	-	-	0.000	-	-	0.000	-	-	0.000	16.000	25	0.400	-	-	-	16.000	25	0.400
HARDWARE - BIOMEME (THREE 9) - JHBI Hardware three 9 (devices) NGB(†)	-	-	0.000	-	-	0.000	-	-	0.000	16.000	19	0.304	-	-	-	16.000	19	0.304
GENE DRIVE - JHBI - Hardware - Genedrive (devices) NGB(†)	-	-	0.000	-	-	0.000	-	-	0.000	6.491	57	0.370	-	-	-	6.491	57	0.370
GENE DRIVE - JHBI - Hardware - Genedrive (devices) USAF(†)	-	-	0.000	-	-	0.000	-	-	0.000	6.494	85	0.552	-	-	-	6.494	85	0.552

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JF0108 / JOINT HANDHELD BIO-AGENT IDENTIFIER (JHBI)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
GENE DRIVE - JHBI - Hardware - Genedrive (devices) USN(†)	-	-	0.000	-	-	0.000	-	-	0.000	6.667	3	0.020	-	-	-	6.667	3	0.020
Subtotal: Recurring Cost	-	-	*2.462*	-	-	*1.193*	-	-	*0.000*	-	-	*1.646*	-	-	-	-	-	*1.646*
Subtotal: Hardware Cost	**-**	**-**	***2.462***	**-**	**-**	***1.193***	**-**	**-**	***0.000***	**-**	**-**	***1.646***	**-**	**-**	**-**	**-**	**-**	***1.646***
Package Fielding Cost																		
Recurring Cost																		
JHBI -Assays-Genedrive	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.275	-	-	-	-	-	0.275
JHBI - Assays - three9(†)	-	-	0.000	0.174	46	0.008	-	-	0.000	-	-	0.145	-	-	-	-	-	0.145
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.008*	-	-	*0.000*	-	-	*0.420*	-	-	-	-	-	*0.420*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.008***	**-**	**-**	***0.000***	**-**	**-**	***0.420***	**-**	**-**	**-**	**-**	**-**	***0.420***
Support Cost																		
Program Management Support	-	-	0.000	-	-	0.286	-	-	0.000	-	-	0.769	-	-	-	-	-	0.769
JHBI Support Costs	-	-	0.000	-	-	0.070	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.356***	**-**	**-**	***0.000***	**-**	**-**	***0.769***	**-**	**-**	**-**	**-**	**-**	***0.769***
Gross/Weapon System Cost	**-**	**-**	**2.462**	**-**	**-**	**1.557**	**-**	**-**	**0.000**	**-**	**-**	**2.835**	**-**	**-**	**-**	**-**	**-**	**2.835**

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. In FY22, the program will provide handheld bio-identification systems for the rapid and accurate identification of organisms at the point of contact for multiple mission types to CBRN DRS System (DR-SKO) Enhancement Package 1 and Joint Biological Tactical Detection System (JBTDS).

Justification: In FY22 JHBI will procure the Genedrive for DR-SKO (NGB 57, USAF 85) and the Three-9 for JBTDS (NGB 19, USMC 25). FY22 will also fund fielding and program management support.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness	Item Number / Title [DODIC]: JF0108 / JOINT HANDHELD BIO-AGENT IDENTIFIER (JHBI)
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

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

CA5/JHBI: RDT&E FY2019 and Prior - 5.528Million

DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES

JHBI - three9 System MS C: Mar 2021
JHBI - three9 System Full Operational Capability: Sep 2021

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

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness	Item Number / Title [DODIC]: JF0108 / JOINT HANDHELD BIO-AGENT IDENTIFIER (JHBI)

Cost Elements	OCO	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
HARDWARE - BIOMEME (THREE 9) - JHBI - Hardware - three9 (devices) SOF		2020	Biomeme / Philadelphia, PA	SS / FFP	RDECOM, Natick, MA	Jan 2021 (3)	Feb 2021	56	21.304	Y		
HARDWARE - BIOMEME (THREE 9) - JHBI Hardware three 9 (devices) USMC		2022	Biomeme / Philadelphia, PA	SS / FFP	RDECOM, Natick, MA	Mar 2022	Jun 2022	25	16.000	Y		
HARDWARE - BIOMEME (THREE 9) - JHBI Hardware three 9 (devices) NGB		2022	Biomeme / Philadelphia, PA	SS / FFP	RDECOM, Natick, MA	Mar 2022	Jun 2022	19	16.000	Y		
GENE DRIVE - JHBI - Hardware - Genedrive (devices) NGB		2022	Biomeme / Philadelphia, PA	SS / FFP	RDECOM, Natick, MA	Mar 2022	Jun 2022	57	6.491	Y		
GENE DRIVE - JHBI - Hardware - Genedrive (devices) USAF		2022	Biomeme / Philadelphia, PA	SS / FFP	RDECOM, Natick, MA	Mar 2022	Jun 2022	85	6.494	Y		
GENE DRIVE - JHBI - Hardware - Genedrive (devices) USN		2022	Biomeme / Philadelphia, PA	SS / FFP	RDECOM, Natick, MA	Mar 2022	Jun 2022	3	6.667	Y		
JHBI - Assays - three9		2020	Biomeme / Philadelphia, PA	SS / FFP	RDECOM, Natick, MA	Sep 2020 (4)	Oct 2020	46	0.174	Y		

Footnotes:

(3) Delivery Order

(4) Delivery Order

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JM8788 / NEXT GENERATION DIAGNOSTICS SYSTEM (NGDS)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	50.483	1.418	0.970	1.290	-	1.290
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	50.483	1.418	0.970	1.290	-	1.290
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**50.483**	**1.418**	**0.970**	**1.290**	**-**	**1.290**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Package Fielding Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	50.483	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Provisioning - Assay and Reagents	-	-	0.000	-	-	0.832	-	-	0.377	-	-	0.223	-	-	-	-	-	0.223
Subtotal: Recurring Cost	-	-	*50.483*	-	-	*0.832*	-	-	*0.377*	-	-	*0.223*	-	-	-	-	-	*0.223*
Non Recurring Cost																		
NGDS - Fielding Support	-	-	0.000	-	-	0.000	-	-	0.047	-	-	0.274	-	-	-	-	-	0.274
NGDS - Fielding Expense	-	-	0.000	-	-	0.000	-	-	0.199	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Non Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.246*	-	-	*0.274*	-	-	-	-	-	*0.274*
Subtotal: Package Fielding Cost	**-**	**-**	***50.483***	**-**	**-**	***0.832***	**-**	**-**	***0.623***	**-**	**-**	***0.497***	**-**	**-**	**-**	**-**	**-**	***0.497***
Logistics Cost																		
Recurring Cost																		
NGDS - Contractor Logistic Support	-	-	0.000	-	-	0.000	-	-	0.307	-	-	0.297	-	-	-	-	-	0.297
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.307*	-	-	*0.297*	-	-	-	-	-	*0.297*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.307***	**-**	**-**	***0.297***	**-**	**-**	**-**	**-**	**-**	***0.297***
Support Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JM8788 / NEXT GENERATION DIAGNOSTICS SYSTEM (NGDS)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
NGDS - PMO Support	-	-	0.000	-	-	0.586	-	-	0.040	-	-	0.094	-	-	-	-	-	0.094
Proficiency Testing	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.206	-	-	-	-	-	0.206
Training	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.196	-	-	-	-	-	0.196
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.586***	**-**	**-**	***0.040***	**-**	**-**	***0.496***	**-**	**-**	**-**	**-**	**-**	***0.496***
Gross/Weapon System Cost	**-**	**-**	**50.483**	**-**	**-**	**1.418**	**-**	**-**	**0.970**	**-**	**-**	**1.290**	**-**	**-**	**-**	**-**	**-**	**1.290**

Remarks:

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, suitable for use in far forward environments, by developing lightweight, portable, and simple-to-use instruments and test kits. In FY21 two new NGDS efforts are broken out into separate development and procurement lines: NGDS 2 Man Portable Diagnostic System (NGDS 2 MPDS) and NGDS 2 Chemical Diagnostics (NGDS 2 CHEMDX). Developmental efforts for both are funded under BA5 RDT&E item MB5 and the NGDS 2 MPDS procurement effort under item SA0044.

Justification: FY22 funds Total Package Fielding (TPF), Contractor Logistics Support, web support and training

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.455	4.624	-	4.624
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.455	4.624	-	4.624
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.455**	**4.624**	**-**	**4.624**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
NGDS 2 MPDS - Man Portable Diagnostic System (MPDS)(†)	-	-	0.000	-	-	0.000	10.000	23	0.230	9.361	191	1.788	-	-	-	9.361	191	1.788
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.230*	-	-	*1.788*	-	-	-	-	-	*1.788*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.230***	**-**	**-**	***1.788***	**-**	**-**	**-**	**-**	**-**	***1.788***
Package Fielding Cost																		
Recurring Cost																		
NGDS 2 MPDS - Fielding Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.671	-	-	-	-	-	0.671
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.671*	-	-	-	-	-	*0.671*
Non Recurring Cost																		
NGDS 2 MPDS - Initial Training	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.564	-	-	-	-	-	0.564
NGDS 2 MPDS - Provisioning - Assays and Consumables	-	-	0.000	-	-	0.000	-	-	0.024	-	-	0.229	-	-	-	-	-	0.229
Subtotal: Non Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.024*	-	-	*0.793*	-	-	-	-	-	*0.793*

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.024***	**-**	**-**	***1.464***	**-**	**-**	**-**	**-**	**-**	***1.464***
Support Cost																		
NGDS 2 MPDS - Data Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.028	-	-	-	-	-	0.028
NGDS 2 MPDS - PMO Support	-	-	0.000	-	-	0.000	-	-	0.201	-	-	1.344	-	-	-	-	-	1.344
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.201***	**-**	**-**	***1.372***	**-**	**-**	**-**	**-**	**-**	***1.372***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.455**	**-**	**-**	**4.624**	**-**	**-**	**-**	**-**	**-**	**4.624**

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, 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 transitions into two separate program lines; NGDS 1 and NGDS 2 Man Portable Diagnostic System (MPDS).

Justification: FY22 funding procures 191 NGDS 2 Man Portable Diagnostic Systems for Special Operations Forces (SOF).

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 - 4.915 Million

DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES

NGDS 2 MPDS - Man Portable Dx System (MPDS) MS C / LRIP: May 2022
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

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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		
NGDS 2 MPDS - Man Portable Diagnostic System (MPDS)		2022	TBD / N/A	SS / FFP	TBD	Jun 2022 (5)	Sep 2022	191	9.361	Y		

Footnotes:
(5) Option 1

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	85.381	7.293	37.173	64.708	-	64.708
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	85.381	7.293	37.173	64.708	-	64.708
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**85.381**	**7.293**	**37.173**	**64.708**	**-**	**64.708**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	85.381	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
PR 2 - PR2 Bio-Subsystems Hardware(†)	-	-	0.000	112.894	47	5.306	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
CALS FC ACS - Consumables	-	-	0.000	-	-	0.000	-	-	1.450	-	-	0.998	-	-	-	-	-	0.998
CALS FC ACS - Production Hardware(†)	-	-	0.000	-	-	0.000	531.960	25	13.299	372.331	136	50.637	-	-	-	372.331	136	50.637
CALS TV IS - CALS TVIS Hardware(†)	-	-	0.000	-	-	0.000	3,313.250	4	13.253	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*85.381*	-	-	*5.306*	-	-	*28.002*	-	-	*51.635*	-	-	-	-	-	*51.635*
Subtotal: Hardware Cost	**-**	**-**	***85.381***	**-**	**-**	***5.306***	**-**	**-**	***28.002***	**-**	**-**	***51.635***	**-**	**-**	**-**	**-**	**-**	***51.635***
Logistics Cost																		
Recurring Cost																		
CALS FC ACS - Fielding	-	-	0.000	-	-	0.000	-	-	0.902	-	-	1.780	-	-	-	-	-	1.780
CALS FC ACS Training	-	-	0.000	-	-	0.000	-	-	0.312	-	-	1.601	-	-	-	-	-	1.601

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
CALS TV IS - CALS TVIS Integration and Fielding	-	-	0.000	-	-	0.000	-	-	1.315	-	-	0.645	-	-	-	-	-	0.645
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*2.529*	-	-	*4.026*	-	-	-	-	-	*4.026*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***2.529***	**-**	**-**	***4.026***	**-**	**-**	**-**	**-**	**-**	***4.026***
Support Cost																		
PR 2 - PR2 Bio-Subsystems PMO	-	-	0.000	-	-	1.487	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
CALS FC ACS System Engineering Program Management	-	-	0.000	-	-	0.000	-	-	0.550	-	-	2.000	-	-	-	-	-	2.000
CALS FC ACS PMO Support	-	-	0.000	-	-	0.000	-	-	2.042	-	-	7.047	-	-	-	-	-	7.047
CALS TV IS - CALS TVIS PMO Support	-	-	0.000	-	-	0.000	-	-	2.050	-	-	0.000	-	-	-	-	-	0.000
CALS TV IS - CALS TVIS System Engineering Program Management	-	-	0.000	-	-	0.500	-	-	2.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***1.987***	**-**	**-**	***6.642***	**-**	**-**	***9.047***	**-**	**-**	**-**	**-**	**-**	***9.047***
Gross/Weapon System Cost	**-**	**-**	**85.381**	**-**	**-**	**7.293**	**-**	**-**	**37.173**	**-**	**-**	**64.708**	**-**	**-**	**-**	**-**	**-**	**64.708**

Remarks:

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. Mission requirements dictate whether Users will receive the biological components, the chemical components, or both biological and chemical components.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

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. For FY20 and beyond, the ALS MOD program funding is captured in a separate P-form budget exhibit Item Number SA0025.

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 procure the requested 47 Meso Scale Diagnostics PR2 instruments (Bio ECL component) in the CALS common suite of COTS/GOTS modular components. 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 designed to support the specific mission of the gaining unit which vary in composition and price across procurement quantities.

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: FY22 funding procures production hardware for 136 FC ACS systems. $32.9 Million accelerates fielding for CALS FC ACS production hardware in FY22 for COVID-19/pandemic response efforts. Additionally, FY22 funding includes respective fielding, training, and System Engineering and Program Management (SEPM) support costs for the FC ACS system as well as fielding costs for the TV IS system.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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	ACC-APG-NCD, Ft. Detrick, MD	May 2020	Dec 2020	47	112.894	Y		
CALS FC ACS - Production Hardware(†)		2021	TBD / N/A	C / FFP	TBD	Jul 2021	Sep 2021	25	531.960	Y		Dec 2020
CALS FC ACS - Production Hardware(†)		2022	TBD / N/A	C / FFP	TBD	Oct 2021	Mar 2022	136	356.599	Y		Sep 2021
CALS TV IS - CALS TVIS Hardware		2021	Combat Capabilities Development Command (CCDC) / APG, MD	MIPR	Aberdeen Proving Ground, MD	May 2021	Dec 2021	4	3,313.250	Y		Jan 2021

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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												BALANCE
										Calendar Year 2020														Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	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	
CALS FC ACS - Production Hardware																															
	1	2021	CBDP	25	0	25																						A -	-	4	21
Secondary Distribution			*ARMY*	*5*	*0*	*5*																						*A -*	-	-	*5*
			AF	*18*	*0*	*18*																						*A -*	-	*4*	*14*
			ARMY : ANG	*2*	*0*	*2*																						*A -*	-	-	*2*
	1	2022	CBDP	136	0	136																									136
Secondary Distribution			*AF*	*84*	*0*	*84*																									*84*
			NAVY	*8*	*0*	*8*																									*8*
			ARMY : ANG	*44*	*0*	*44*																									*44*
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 2022												Fiscal Year 2023											BALANCE
										Calendar Year 2022														Calendar Year 2023								
OCO	MFR #	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	
CALS FC ACS - Production Hardware																														
	1	2021	CBDP	25	4	21	4	4	4	4	5																			0
			ARMY	*5*	*0*	*5*	-	-	-	-	*5*																			*0*
Secondary Distribution			*AF*	*18*	*4*	*14*	*4*	*4*	*4*	*2*	-																			*0*
			ARMY : ANG	*2*	*0*	*2*	-	-	-	*2*	-																			*0*
	1	2022	CBDP	136	0	136	A -	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10	10	6					0
			AF	*84*	*0*	*84*	*A -*	-	-	-	-	*10*	*10*	*10*	*10*	*10*	*10*	*10*	*10*	*4*	-	-	-	-	-					*0*
Secondary Distribution			*NAVY*	*8*	*0*	*8*	*A -*	-	-	-	-	-	-	-	-	-	-	-	-	*6*	*2*	-	-	-	-					*0*
			ARMY : ANG	*44*	*0*	*44*	*A -*	-	-	-	-	-	-	-	-	-	-	-	-	-	*8*	*10*	*10*	*10*	*6*					*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	

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	TBD - N/A	1	5	10	2	5	4	9	2	0	1	1

(‡) 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).

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	55.158	27.335	1.056	-	1.056
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	55.158	27.335	1.056	-	1.056
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**55.158**	**27.335**	**1.056**	**-**	**1.056**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
ALS MOD - Production(†)	-	-	0.000	1,766.304	23	40.625	2,154.857	7	15.084	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*40.625*	-	-	*15.084*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***40.625***	**-**	**-**	***15.084***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Logistics Cost																		
Recurring Cost																		
ALS MOD - Fielding Costs	-	-	0.000	-	-	6.253	-	-	2.321	-	-	0.852	-	-	-	-	-	0.852
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*6.253*	-	-	*2.321*	-	-	*0.852*	-	-	-	-	-	*0.852*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***6.253***	**-**	**-**	***2.321***	**-**	**-**	***0.852***	**-**	**-**	**-**	**-**	**-**	***0.852***
Support Cost																		
ALS MOD - PMO Support	-	-	0.000	-	-	0.000	-	-	6.830	-	-	0.000	-	-	-	-	-	0.000
ALS MOD - System Test & Evaluation - IA Support	-	-	0.000	-	-	0.150	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
ALS MOD - Program and Engineering Support	-	-	0.000	-	-	8.130	-	-	3.100	-	-	0.204	-	-	-	-	-	0.204
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***8.280***	**-**	**-**	***9.930***	**-**	**-**	***0.204***	**-**	**-**	**-**	**-**	**-**	***0.204***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**55.158**	**-**	**-**	**27.335**	**-**	**-**	**1.056**	**-**	**-**	**-**	**-**	**-**	**1.056**

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

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 a 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.

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.

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 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 equipment identified as a result of time phased modernization planning will support the specific mission set of the gaining unit and will vary in composition, price, and quantity.

Note: CALS FY19 funds (Item Number JS0005) supported the ALS MOD 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 here under ALS MOD Item Number SA0025 to further define the CALS FC IS transition to ALS MOD.

Justification: FY22 funding includes respective fielding and System Engineering and Program Management (SEPM) support costs for the ALS MOD system.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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		2020	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2020	Jan 2021	23	1,766.304	Y		
ALS MOD - Production		2021	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Jun 2021	Dec 2021	7	1,779.000	Y		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	5.007	1.089	1.083	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5.007	1.089	1.083	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5.007**	**1.089**	**1.083**	**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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	5.007	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
PERSONAL PROTECTIVE EQUIPMENT CLASS 2 - Ensembles(†)	-	-	0.000	-	-	0.000	10.062	65	0.654	-	-	0.000	-	-	-	-	-	0.000
PERSONAL PROTECTIVE EQUIPMENT CLASS 3 - Ensembles(†)	-	-	0.000	2.035	371	0.755	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*5.007*	-	-	*0.755*	-	-	*0.654*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***5.007***	**-**	**-**	***0.755***	**-**	**-**	***0.654***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
SPU CBE (CBIRF) Engineering and Logistics Support	-	-	0.000	-	-	0.000	-	-	0.267	-	-	0.000	-	-	-	-	-	0.000
SPU CBE (CBIRF) Program Management and Support	-	-	0.000	-	-	0.334	-	-	0.162	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.334***	**-**	**-**	***0.429***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Gross/Weapon System Cost	-	-	5.007	-	-	1.089	-	-	1.083	-	-	0.000	-	-	-	-	-	0.000

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. Legacy CBIRF requirements and gaps that were previously filled through the CBDP SPU CBE line have successfully transitioned to customer sustainment for FY22 and beyond.

Justification: There is no FY22 PB Request.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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 2 - Ensembles		2021	Federal Resources Supply Company / Stevensville, MD	C / FFP	ACC, APG, MD	Mar 2021	Aug 2021	65	10.062	Y		Oct 2020
PERSONAL PROTECTIVE EQUIPMENT CLASS 3 - Ensembles		2020	Federal Resources Supply Company / Stevensville, MD	C / FFP	ACC, APG, MD	Feb 2020	Nov 2020	371	2.035	Y		Nov 2019

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JS5230 / MODERNIZATION CBRN INFORMATION SYSTEMS (MOD CBRN IS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2.808	0.081	0.074	0.611	-	0.611
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2.808	0.081	0.074	0.611	-	0.611
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2.808**	**0.081**	**0.074**	**0.611**	**-**	**0.611**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	2.808	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
MOD CBRN IS - System Fielding Support (TPF, NET)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.611	-	-	-	-	-	0.611
Subtotal: Recurring Cost	-	-	*2.808*	-	-	*0.000*	-	-	*0.000*	-	-	*0.611*	-	-	-	-	-	*0.611*
Subtotal: Hardware Cost	**-**	**-**	***2.808***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.611***	**-**	**-**	**-**	**-**	**-**	***0.611***
Support Cost																		
SSA - System Fielding Support (TPF, NET)	-	-	0.000	-	-	0.081	-	-	0.074	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.081***	**-**	**-**	***0.074***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**2.808**	**-**	**-**	**0.081**	**-**	**-**	**0.074**	**-**	**-**	**0.611**	**-**	**-**	**-**	**-**	**-**	**0.611**

Remarks:
MOD 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.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JS5230 / MODERNIZATION CBRN INFORMATION SYSTEMS (MOD CBRN IS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Justification: FY22 funds procure equipment including computers, servers, licensing and fielding and upgrades to CBRN Information Systems on theater specific Command and Control Systems.

P5: SSA support to CBRND enterprise programs transitions to the MOD CBRN IS portfolio in FY22.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JX0210 / DEFENSE BIOLOGICAL PRODUCTS ASSURANCE PROGRAM (DBPAP)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	28.002	2.961	2.845	2.760	-	2.760
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	28.002	2.961	2.845	2.760	-	2.760
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**28.002**	**2.961**	**2.845**	**2.760**	**-**	**2.760**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Support Cost																		
Prior/Future combined efforts	-	-	28.002	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DBPAP - Consumables and Reagents, Repository Equipment, Maintenance, and Service Contracts	-	-	0.000	-	-	2.961	-	-	2.845	-	-	2.760	-	-	-	-	-	2.760
Subtotal: Support Cost	**-**	**-**	***28.002***	**-**	**-**	***2.961***	**-**	**-**	***2.845***	**-**	**-**	***2.760***	**-**	**-**	**-**	**-**	**-**	***2.760***
Gross/Weapon System Cost	**-**	**-**	**28.002**	**-**	**-**	**2.961**	**-**	**-**	**2.845**	**-**	**-**	**2.760**	**-**	**-**	**-**	**-**	**-**	**2.760**

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.

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

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JX0210 / DEFENSE BIOLOGICAL PRODUCTS ASSURANCE PROGRAM (DBPAP)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

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.

Note: Antibodies, assays, and reference materials are ordered using outside source funding (DoD and other Government agencies).

Justification: FY22 funds support repository management (i.e. production, storage, distribution and quality assurance validation) of assays, antibodies, select biological threat agent and genomic reference materials.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JX0301 / BIOSURVELLENCE PORTAL (BSP)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	6.443	3.276	0.000	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	6.443	3.276	0.000	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**6.443**	**3.276**	**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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	6.443	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Total Package Fielding	-	-	0.000	-	-	2.152	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*6.443*	-	-	*2.152*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***6.443***	**-**	**-**	***2.152***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Software Cost																		
Recurring Cost																		
Software and Installation	-	-	0.000	-	-	0.281	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.281*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Software Cost	**-**	**-**	***0.000***	**-**	**-**	***0.281***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Package Fielding Cost																		
Recurring Cost																		
System Fielding Support (TFP, FDT, NET)	-	-	0.000	-	-	0.562	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.562*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.562***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** JX0301 / BIOSURVELLENCE PORTAL (BSP)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Technical Engineering Support	-	-	0.000	-	-	0.281	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.281***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**6.443**	**-**	**-**	**3.276**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:

The Global Biosurveillance Portal (G-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. G-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. G-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. G-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. G-BSP will achieve full fielding and Full Operational Capability (FOC) in FY21. G-BSP will transition to Total Package Fielding in 2021-2022 prior to USSOCOM Sustainment beginning in FY23.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** MC0100 / JOINT NBC RECONNAISSANCE SYSTEM (JNBCRS)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	423.426	1.900	0.000	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	423.426	1.900	0.000	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**423.426**	**1.900**	**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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	423.426	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Lidar and Bio Detectors on UAVs(†)	-	-	0.000	800.000	2	1.600	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*423.426*	-	-	*1.600*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***423.426***	**-**	**-**	***1.600***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
Engineering Support	-	-	0.000	-	-	0.300	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.300***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**423.426**	**-**	**-**	**1.900**	**-**	**-**	**0.000**	**-**	**-**	**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 (JBPDS), 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.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** MC0100 / JOINT NBC RECONNAISSANCE SYSTEM (JNBCRS)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness	Item Number / Title [DODIC]: MC0100 / JOINT NBC RECONNAISSANCE SYSTEM (JNBCRS)

Cost Elements	OCO	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
Lidar and Bio Detectors on UAVs		2020	FLIR Systems Inc. / Elkridge, MD	C / CPFF	ACC, NJ	May 2020	Jan 2021	2	800.000	N		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	613.034	58.020	52.393	21.799	-	21.799
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	613.034	58.020	52.393	21.799	-	21.799
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**613.034**	**58.020**	**52.393**	**21.799**	**-**	**21.799**
(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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	585.318	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
CBRN DRS Purchase Training Support/ILS Package/GFE updates	-	-	0.000	-	-	0.000	-	-	2.589	-	-	0.000	-	-	-	-	-	0.000
MARINE CORPS EOD - CBRN DRS USMC EOD MARSOC Teams Configuration(†)	-	-	0.000	808.929	14	11.325	690.286	7	4.832	-	-	0.000	-	-	-	-	-	0.000
MARINE CORPS EOD - CBRN DRS USMC EOD Teams (Explosive Ordinance Disposal Teams) Configuration(†)	-	-	0.000	-	-	0.000	654.053	19	12.427	855.474	19	16.254	-	-	-	855.474	19	16.254
CBRN DRS Air Force Configuration(†)	250.650	40	10.026	151.000	45	6.795	201.980	49	9.897	-	-	0.000	-	-	-	-	-	0.000
CBRN DRS Navy Configuration(†)	421.190	42	17.690	320.644	45	14.429	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Long Lead Items	-	-	0.000	-	-	7.902	-	-	2.662	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*613.034*	-	-	*40.451*	-	-	*32.407*	-	-	*16.254*	-	-	-	-	-	*16.254*

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Subtotal: Hardware Cost	**-**	**-**	***613.034***	**-**	**-**	***40.451***	**-**	**-**	***32.407***	**-**	**-**	***16.254***	**-**	**-**	**-**	**-**	**-**	***16.254***
Logistics Cost																		
Recurring Cost																		
CBRN DRS 1 - CBRN DRS Acquisition Logistics Product Support (TACOM)	-	-	0.000	-	-	0.460	-	-	0.500	-	-	0.300	-	-	-	-	-	0.300
CBRN DRS - Contractor Logistic Support	-	-	0.000	-	-	1.068	-	-	1.390	-	-	0.000	-	-	-	-	-	0.000
CBRN DRS Logistics/ Sustainment Support (PBA)	-	-	0.000	-	-	2.923	-	-	2.620	-	-	0.500	-	-	-	-	-	0.500
CBRN DRS Contractor Logistics Support (CACI)	-	-	0.000	-	-	0.750	-	-	1.800	-	-	0.750	-	-	-	-	-	0.750
CBRN DRS Initial Spares	-	-	0.000	-	-	1.205	-	-	1.750	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*6.406*	-	-	*8.060*	-	-	*1.550*	-	-	-	-	-	*1.550*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***6.406***	**-**	**-**	***8.060***	**-**	**-**	***1.550***	**-**	**-**	**-**	**-**	**-**	***1.550***
Support Cost																		
CBRN DRS Fielding Support (NET Team Govt JPM/TACOM)	-	-	0.000	-	-	0.584	-	-	0.900	-	-	0.380	-	-	-	-	-	0.380
CBRN DRS Fielding Support - TACOM - Total Fielding Packages	-	-	0.000	-	-	0.280	-	-	0.786	-	-	0.100	-	-	-	-	-	0.100
CBRN DRS System Management and Engineering	-	-	0.000	-	-	2.447	-	-	2.733	-	-	1.281	-	-	-	-	-	1.281
CBRN DRS Government Management Services	-	-	0.000	-	-	6.375	-	-	5.217	-	-	2.234	-	-	-	-	-	2.234
CBRN DRS Fielding Support (MSCoE)	-	-	0.000	-	-	0.551	-	-	0.650	-	-	0.000	-	-	-	-	-	0.000
CBRN DRS Engineering Support	-	-	0.000	-	-	0.926	-	-	1.640	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***11.163***	**-**	**-**	***11.926***	**-**	**-**	***3.995***	**-**	**-**	**-**	**-**	**-**	***3.995***
Gross/Weapon System Cost	**-**	**-**	**613.034**	**-**	**-**	**58.020**	**-**	**-**	**52.393**	**-**	**-**	**21.799**	**-**	**-**	**-**	**-**	**-**	**21.799**

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

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.

CBRN DRS and Army EOD DRSKO were combined into a single program in accordance with the ADM, signed 26 Jun 2020. The Army EOD is now managed as a variant of the CBRN DRS program. In FY21, Army plans to fund $6.907M in Base, $18.887M OCO and, in FY22, $6.906 in Base and $19.076M in OCO towards this effort, Army item M09988.

EOD users will use the system to assess ordnance and improvised explosive devices for CBRN hazards during render safe operations.

Advancing threats and current capability gaps in sensitive site exploitation capability require a System Modernization Package (SMP) to the baseline DR SKO systems. Beginning in FY23, the SMP effort will produce capability to meet updated requirements to support advancing threats and capability gaps in sensitive site exploitation. Individual capability sets will be identified and incorporated into the CBRN DRS as engineering change proposals to the base kit. The SMP package will be tailored by unit type, produced, and fielded in accordance with priorities and needs of the Services.

Note: FY21 funding includes Congressional Increase ($5.0 Million).

Justification: FY22 funds procure 19 Explosive Ordinance Disposal Teams (EOD TMS) for the Marine Corps, as well as fielding, engineering, program management, and logistics support.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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
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	Aug 2020	14	808.929	Y		
MARINE CORPS EOD - CBRN DRS USMC EOD MARSOC Teams Configuration		2021	Pine Bluff Arsenal / Pine Bluff, AR	C / FFP	Pine Bluff Arsenal, Pine Bluff, AR	Feb 2021	Jul 2021	7	690.286	Y		
MARINE CORPS EOD - CBRN DRS USMC EOD Teams (Explosive Ordinance Disposal Teams) Configuration(†)		2021	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2020	Sep 2021	19	654.053	Y		
MARINE CORPS EOD - CBRN DRS USMC EOD Teams (Explosive Ordinance Disposal Teams) Configuration(†)		2022	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2021	Jul 2022	19	855.474	Y		
CBRN DRS Air Force Configuration		2019	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2018	Sep 2019	40	250.650	Y		
CBRN DRS Air Force Configuration		2020	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2019	Aug 2020	45	151.000	Y		
CBRN DRS Air Force Configuration		2021	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2020	Aug 2021	49	201.980	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	Sep 2020	45	320.644	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019												Calendar Year 2020											
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	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	
MARINE CORPS EOD - CBRN DRS USMC EOD Teams (Explosive Ordinance Disposal Teams) Configuration																															
	1	2021	CBDP	19	0	19																									19
Secondary Distribution			*MC*	*19*	*0*	*19*																									*19*
	2	2022	CBDP	19	0	19																									19
Secondary Distribution			*MC*	*19*	*0*	*19*																									*19*
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021														Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	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	
MARINE CORPS EOD - CBRN DRS USMC EOD Teams (Explosive Ordinance Disposal Teams) Configuration																															
	1	2021	CBDP	19	0	19		A -	-	-	-	-	-	-	-	-	-	3	4	4	4	4									0
Secondary Distribution			*MC*	*19*	*0*	*19*		*A -*	-	-	-	-	-	-	-	-	-	*3*	*4*	*4*	*4*	*4*									*0*
	2	2022	CBDP	19	0	19														A -	-	-	-	-	-	-	-	-	4	4	4	7
Secondary Distribution			*MC*	*19*	*0*	*19*														*A -*	-	-	-	-	-	-	-	-	*4*	*4*	*4*	*7*
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023														Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	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	
MARINE CORPS EOD - CBRN DRS USMC EOD Teams (Explosive Ordinance Disposal Teams) Configuration																															
	1	2021	CBDP	19	19	0																									0
Secondary Distribution			*MC*	*19*	*19*	*0*																									*0*
	2	2022	CBDP	19	12	7	4	3																							0
Secondary Distribution			*MC*	*19*	*12*	*7*	*4*	*3*																							*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	

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	4	3	9	12	1	1	8	9
2	Pine Bluff Arsenal - Pine Bluff, AR	1	6	24	4	3	9	12	1	7	5	12

(‡) 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).

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	13.643	13.562	21.473	-	21.473
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	13.643	13.562	21.473	-	21.473
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**13.643**	**13.562**	**21.473**	**-**	**21.473**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
EMBD FRP Hardware Production(†)	-	-	0.000	-	-	0.000	400.000	13	5.200	348.385	26	9.058	-	-	-	348.385	26	9.058
EMBD LRIP Hardware Production(†)	-	-	0.000	425.000	10	4.250	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*4.250*	-	-	*5.200*	-	-	*9.058*	-	-	-	-	-	*9.058*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***4.250***	**-**	**-**	***5.200***	**-**	**-**	***9.058***	**-**	**-**	**-**	**-**	**-**	***9.058***
Software Cost																		
Recurring Cost																		
EMBD Configuration Management	-	-	0.000	-	-	0.288	-	-	0.350	-	-	0.307	-	-	-	-	-	0.307
EMBD Software Support	-	-	0.000	-	-	0.075	-	-	0.056	-	-	0.079	-	-	-	-	-	0.079
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.363*	-	-	*0.406*	-	-	*0.386*	-	-	-	-	-	*0.386*
Subtotal: Software Cost	**-**	**-**	***0.000***	**-**	**-**	***0.363***	**-**	**-**	***0.406***	**-**	**-**	***0.386***	**-**	**-**	**-**	**-**	**-**	***0.386***
Package Fielding Cost																		
Recurring Cost																		
EMBD Initial Fielding Packages(†)	-	-	0.000	115.000	10	1.150	128.308	13	1.668	105.192	26	2.735	-	-	-	105.192	26	2.735

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*1.150*	-	-	*1.668*	-	-	*2.735*	-	-	-	-	-	*2.735*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***1.150***	**-**	**-**	***1.668***	**-**	**-**	***2.735***	**-**	**-**	**-**	**-**	**-**	***2.735***
Logistics Cost																		
Recurring Cost																		
EMBD Logistics Support	-	-	0.000	-	-	1.050	-	-	1.089	-	-	1.109	-	-	-	-	-	1.109
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*1.050*	-	-	*1.089*	-	-	*1.109*	-	-	-	-	-	*1.109*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***1.050***	**-**	**-**	***1.089***	**-**	**-**	***1.109***	**-**	**-**	**-**	**-**	**-**	***1.109***
Support Cost																		
EMBD Production Contractor Engineering & Management	-	-	0.000	-	-	3.350	-	-	2.300	-	-	4.419	-	-	-	-	-	4.419
EMBD Government Engineering and System Support	-	-	0.000	-	-	1.492	-	-	1.598	-	-	1.705	-	-	-	-	-	1.705
EMBD Government Management Services	-	-	0.000	-	-	1.988	-	-	1.301	-	-	2.061	-	-	-	-	-	2.061
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***6.830***	**-**	**-**	***5.199***	**-**	**-**	***8.185***	**-**	**-**	**-**	**-**	**-**	***8.185***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**13.643**	**-**	**-**	**13.562**	**-**	**-**	**21.473**	**-**	**-**	**-**	**-**	**-**	**21.473**

Remarks:

Enhanced Maritime Biological Detection (EMBD) is a technology refresh to the Joint Biological Point Detection System (JBPDS) and provides improved detection capabilities, decreases operational costs while increasing reliability and maintainability. Recent testing demonstrated increases over the legacy JBPDS detection capabilities, reliability and false alarm rate. Detection sensitivity of the EMBD is twice that of the legacy detector. The EMBD Mean Time Between Operational Mission Failure (MTBOMF) rate was independently assessed at 1,667 hours compared to the JBPDS at 132 hours. The Mean Time Between False Alarm (MTBFA) rate of the EMBD Rapid Agent Aerosol Detector (RAAD) was 418 hours, far exceeding the CPD requirement of 168 hours and the JBPDS legacy detector at 3.5 hours. The increases in both MTBOMF and MTBFA will directly reduce maintenance costs and per-mission consumable costs of EMBD saving over $90M through the life cycle. EMBD's computing architecture has been upgraded to an enterprise version of Windows 10 and expands the use of military-grade electronics, both reducing the effort and cost to continually combat the threats to Cybersecurity and extending the life of EMBD for at least 10 years.

Justification: FY22 funds procure 26 Full Rate Production (FRP) systems for fielding, production support, logistics support and initial fielding packages.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

Cost Elements	OCO	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
EMBD FRP Hardware Production(†)		2021	TBD / N/A	C / FPIF	TBD	Apr 2021	Jun 2022	13	400.000	Y		
EMBD FRP Hardware Production(†)		2022	TBD / N/A	C / FPIF	TBD	Dec 2021 (6)	Feb 2023	26	348.385	Y		
EMBD LRIP Hardware Production		2020	Chemring Detection Systems / Charlotte, NC	C / FPIF	ACC, APG, MD	May 2020 (7)	Jul 2021	10	425.000	Y		
EMBD Initial Fielding Packages		2020	Chemring Detection Systems / Charlotte, NC	C / FPIF	ACC, APG, MD	May 2020 (8)	Jul 2021	10	115.000	Y		
EMBD Initial Fielding Packages		2021	TBD / N/A	C / FPIF	TBD	Apr 2021	Jun 2022	13	128.308	Y		
EMBD Initial Fielding Packages		2022	TBD / N/A	C / FPIF	TBD	Dec 2021 (9)	Feb 2023	26	105.192	Y		

(†) indicates the presence of a P-21

Footnotes:
(6) (Option)
(7) (Option)
(8) (Option)
(9) (Option)

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021											BALANCE
							Calendar Year 2020												Calendar Year 2021											
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	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	
EMBD FRP Hardware Production																														
	1	2021	CBDP	13	0	13																			A -	-	-	-	-	-	13
Secondary Distribution			*NAVY*	*13*	*0*	*13*																			*A -*	-	-	-	-	-	*13*
	1	2022	CBDP	26	0	26																									26
Secondary Distribution			*NAVY*	*26*	*0*	*26*																									*26*

OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023													
OCO	MFR #	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	
EMBD FRP Hardware Production																															
	1	2021	CBDP	13	0	13	-	-	-	-	-	-	-	-	4	3	3	3													0
Secondary Distribution			*NAVY*	*13*	*0*	*13*	-	-	-	-	-	-	-	-	*4*	*3*	*3*	*3*													*0*
	1	2022	CBDP	26	0	26			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	10
Secondary Distribution			*NAVY*	*26*	*0*	*26*			*A* -	-	-	-	-	-	-	-	-	-	-	-	-	-	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*10*

OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

Cost Elements (Units in Each)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
							Calendar Year 2024												Calendar Year 2025													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	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	
EMBD FRP Hardware Production																															
	1	2021	CBDP	13	13	0																									0
Secondary Distribution			*NAVY*	*13*	*13*	*0*																									*0*
	1	2022	CBDP	26	16	10	2	2	2	2	2																				0
Secondary Distribution			*NAVY*	*26*	*16*	*10*	*2*	*2*	*2*	*2*	*2*																				*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

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	TBD - N/A	2	2	10	0	6	14	20	0	2	14	16

(‡) 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).

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0005 / CBRN SENSOR INTEGRATION ON ROBOTIC PLATFORMS (CSIRP)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	1.747	0.503	3.561	-	3.561
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	1.747	0.503	3.561	-	3.561
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**1.747**	**0.503**	**3.561**	**-**	**3.561**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
CSIRP Hardware(†)	-	-	0.000	8.000	212	1.696	7.963	54	0.430	29.688	93	2.761	-	-	-	29.688	93	2.761
System Eng and System Testing	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.575	-	-	-	-	-	0.575
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*1.696*	-	-	*0.430*	-	-	*3.336*	-	-	-	-	-	*3.336*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***1.696***	**-**	**-**	***0.430***	**-**	**-**	***3.336***	**-**	**-**	**-**	**-**	**-**	***3.336***
Support Cost																		
Program Management	-	-	0.000	-	-	0.051	-	-	0.073	-	-	0.225	-	-	-	-	-	0.225
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.051***	**-**	**-**	***0.073***	**-**	**-**	***0.225***	**-**	**-**	**-**	**-**	**-**	***0.225***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**1.747**	**-**	**-**	**0.503**	**-**	**-**	**3.561**	**-**	**-**	**-**	**-**	**-**	**3.561**

Remarks:
Chemical Biological Radiological and Nuclear (CBRN) Sensor Integration on Robotics Platforms (CSIRP) is a prototyping and fielding effort that will focus on repackaging and integrating modular CBRN sensor solutions to enhance Unmanned Aircraft Systems (UAS) and Unmanned Ground Vehicles (UGV) Programs of Record (PORs) to 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 artificial intelligence, machine learning and autonomy, sensing and communication capabilities that enable timely and accurate detection, warning and reporting of Chemical Biological Radiological Nuclear (CBRN) hazards for increased risk reduction opportunities at tactical and operational echelons in mounted and dismounted configurations. CSIRP gives the Joint Force an opportunity to enhance capabilities and maintain operational advantage in a lethal and sophisticated operating environment.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness	Item Number / Title [DODIC]: SA0005 / CBRN SENSOR INTEGRATION ON ROBOTIC PLATFORMS (CSIRP)
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

Justification: FY22 funding procures ninety-three (93) commercial off the shelf (COTS) Short Range UAV Platform prototypes for user evaluation of Prototype #1. The following quantities will be procured for each service: USA twenty-four (24), USN twenty-three (23), USAF twenty-three (23), USMC twenty-three (23).

RDT&E Code B Item: 0603884BP/Proj CA4; 0604384BP/Proj CA5

CA4/CSIRP: RDT&E FY2019 and Prior - 4.802Million; FY2020 - 7.820 Million; FY2021 - 4.061 Million
CA5/CSIRP: RDT&E ; FY2021 - 11.251 Million; FY2022 - 16.581 Million; FY2023 - 20.043 Million; FY2024 - 18.831 Million; FY2025 - 19.701 Million; FY2026 - 14.959 Million
DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES

CSIRP - OTA Request For Information (Sep 2018 to Oct 2018)
CSIRP - Request for White Papers - Prototyping Plan #1 (Jan 2019 to Feb 2019)
CSIRP - OTA Award for Prototyping Plan #1: Aug 2019
CSIRP - Materiel Development Decision: Apr 2019
CSIRP - Test and Evaluation of Prototypes - Prototyping Plan #1 (Jan 2020 to Jun 2022)
CSIRP - Transition Decision - Prototyping Plan #1: Jun 2022
CSIRP - Request for White Papers - Prototyping Plan #2 (Aug 2021 to Oct 2021)
CSIRP - OTA Award and Execution for Prototyping Plan #2 (Apr 2022 to Jun 2025)
CSIRP - Test and Evaluation of Prototypes - Prototyping Plan #2 (Apr 2023 to Jun 2025)
CSIRP - Transition Decision - Prototyping Plan #2: Jun 2025
CSIRP - Test and Evaluation of Prototypes - Prototyping Plan #3: May 2028
CSIRP - Transition Decision - Prototyping Plan #3: May 2028

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

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0005 / CBRN SENSOR INTEGRATION ON ROBOTIC PLATFORMS (CSIRP)

Cost Elements	OCO	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	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	May 2020	Oct 2020	212	8.000	Y		
CSIRP Hardware		2021	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Mar 2021	Sep 2021	54	7.963	Y		
CSIRP Hardware		2022	Various / UNKNOWN	C / FFP	ACC, NJ	Jul 2022	Oct 2022	93	29.688	Y		

Remarks:
Production contract will be awarded as follow-on to MIPR awarded on 07 MAY 2020 to Pine Bluff Arsenal and a separate Production contract will be awarded as follow-on to OTA for FY22 funds.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0006 / CBRN INFORMATION SYSTEMS (CBRN IS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1.716	0.276	0.512	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1.716	0.276	0.512	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1.716**	**0.276**	**0.512**	**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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Software Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	1.716	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Technical and Engineering Support	-	-	0.000	-	-	0.276	-	-	0.340	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*1.716*	-	-	*0.276*	-	-	*0.340*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Software Cost	**-**	**-**	***1.716***	**-**	**-**	***0.276***	**-**	**-**	***0.340***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Package Fielding Cost																		
Recurring Cost																		
Total Package Fielding	-	-	0.000	-	-	0.000	-	-	0.172	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.172*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.172***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**1.716**	**-**	**-**	**0.276**	**-**	**-**	**0.512**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:

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

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness	Item Number / Title [DODIC]: SA0006 / CBRN INFORMATION SYSTEMS (CBRN IS)
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

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.

In FY21, JEM and JWARN will transition to CBRN IS for sustainment . 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. FY21 supports CBRN IS software costs and Total Package Fielding. CBRN IS will transition under MOD CBRN IS in FY22.

Justification: There is no FY22 PB request.

RDT&E Code B Item: 0604384BP/Proj IS5; 0607384BP/Proj IS7

IS5/CBRN IS: RDT&E FY2019 and Prior - 10.187Million; FY2020 - 2.448 Million; FY2021 - 3.131 Million
IS7/CBRN IS: RDT&E FY2019 and Prior - 3.099Million; FY2020 - 1.802 Million; FY2021 - 2.057 Million

DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES

CBRN IS - Product Development (Oct 2018 to Sep 2021)
CBRN IS - Operational Assessments (Oct 2018 to Sep 2021)
CBRN IS - Developmental Test (Sep 2019 to Sep 2021)
CBRN IS - Total Package Fielding (Oct 2018 to Sep 2021)

P5: CBRN IS support to CBRND enterprise programs transitions to the MOD CBRN IS portfolio in FY22.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0009 / MOUNTED MANNED PLATFORM RADIOLOGICAL DETECTION SYSTEM (MMPRDS)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	1.622	0.000	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	1.622	0.000	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**1.622**	**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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Non Recurring Cost																		
MMPRDS - MERLIN Hardware(†)	-	-	0.000	285.000	5	1.425	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Non Recurring Cost	-	-	*0.000*	-	-	*1.425*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***1.425***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
MMPRDS - Program Management	-	-	0.000	-	-	0.197	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.197***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**1.622**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:
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 level testing, advanced vehicle integration efforts, 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 (JNBCRS) sensor suite upgrade.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0009 / MOUNTED MANNED PLATFORM RADIOLOGICAL DETECTION SYSTEM (MMPRDS)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0009 / MOUNTED MANNED PLATFORM RADIOLOGICAL DETECTION SYSTEM (MMPRDS)

Cost Elements	OCO	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	Jun 2020	Dec 2020	5	285.000	N		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.146	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.146	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.146**	**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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Support Cost																		
MERLIN Program Management	-	-	0.000	-	-	0.000	-	-	0.146	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.146***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.146**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:
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). After FY21 the MERLIN line will terminate and all future efforts will be service funded.

Justification: There is no FY22 PB request.

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

CA5/MERLIN: RDT&E ; FY2021 - 1.294 Million

DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

MERLIN - Army Platform Integration OTA: Oct 2020
MERLIN - Army Platform Full Materiel Release (Aug 2022 to Sep 2021)

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0011 / RADIOLOGICAL DETECTION SYSTEM (RDS)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	4.065	0.000	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	4.065	0.000	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**4.065**	**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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
USMC logistics equipment	-	-	0.000	-	-	0.179	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
RDS Hardware Army Config 2(†)	-	-	0.000	21.167	18	0.381	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.560*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***0.560***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Logistics Cost																		
Non Recurring Cost																		
Calibration Equipment	-	-	0.000	-	-	0.505	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Non Recurring Cost	-	-	*0.000*	-	-	*0.505*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***0.505***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
LRIP Support	-	-	0.000	-	-	2.304	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
JPEO/JPM Program Management	-	-	0.000	-	-	0.676	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
RDS LOT Acceptance Testing All CBDP Configurations	-	-	0.000	-	-	0.020	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***3.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0011 / RADIOLOGICAL DETECTION SYSTEM (RDS)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Gross/Weapon System Cost	-	-	0.000	-	-	4.065	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000

Remarks:
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.

Starting in FY21, procurement of RDS units will be funded by other Service funding: Army, Navy, Marine Corps, and Air Force. Full Rate Production (FRP) contract planned to be awarded in FY21.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness	Item Number / Title [DODIC]: SA0011 / RADIOLOGICAL DETECTION SYSTEM (RDS)

Cost Elements	OCO	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
RDS Hardware Army Config 2		2020	VPI / Draper, UT	SS / FPIF	ACC, APG, MD	Apr 2021	Nov 2021	18	21.167	Y		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0012 / JOINT PERSONNEL DOSIMETER-INDIVIDUAL (JPD-I)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	5.000	4.957	0.000	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5.000	4.957	0.000	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5.000**	**4.957**	**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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	1.500	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
JPD-I End Item(†)	0.238	14,687	3.500	0.275	12,010	3.307	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*5.000*	-	-	*3.307*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***5.000***	**-**	**-**	***3.307***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Package Fielding Cost																		
Recurring Cost																		
JPD-I - Fielding Support	-	-	0.000	-	-	0.630	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.630*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.630***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
JPD-I - Program Management and System Engineering	-	-	0.000	-	-	1.020	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***1.020***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**5.000**	**-**	**-**	**4.957**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 7001SA1000 / Chemical Biological Situational Awareness	**Item Number / Title [DODIC]:** SA0012 / JOINT PERSONNEL DOSIMETER-INDIVIDUAL (JPD-I)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

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 addressing lessons learned from Operation Tomodachi. JPD-I provides near-real time display of soldiers radiation exposure to support situational awareness.

Note: FY19 CBDP Procurement, Defense-Wide 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. The Army will continue to fund JPD-I program procurement in FY21 under Other Procurement, Army, Budget Activity 03.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	P-1 Line Item Number / Title: 7001SA1000 / Chemical Biological Situational Awareness	Item Number / Title [DODIC]: SA0012 / JOINT PERSONNEL DOSIMETER-INDIVIDUAL (JPD-I)

Cost Elements	OCO	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
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	Apr 2020 (10)	Aug 2021	12,010	0.275	Y		

Footnotes:
(10) Option

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Exhibit P-40, Budget Line Item Justification: PB 2022 Chemical and Biological Defense Program	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 03: Chemical/Biological Defense / BSA 1: CBDP	**P-1 Line Item Number / Title:** 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
Line Item MDAP/MAIS Code: N/A	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	3,316.309	178.766	148.752	189.265	-	189.265	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3,316.309	178.766	148.752	189.265	-	189.265	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3,316.309**	**178.766**	**148.752**	**189.265**	**-**	**189.265**	**-**	**-**	**-**	**-**	**-**	**-**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Protection & Hazard Mitigation (Protect) Portfolio will 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.

The Protection & Hazard Mitigation (Mitigate) Portfolio will 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.

Exhibit P-40, Budget Line Item Justification: PB 2022 Chemical and Biological Defense Program	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 03: Chemical/Biological Defense / BSA 1: CBDP	**P-1 Line Item Number / Title:** 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
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*	Quantity / Total Cost *(Each) / ($ M)*
P-5	PHM036 / MODERNIZATION PROTECTION COLLECTIVE PROTECTION (MODPROT CP)	P-5a	A		- / 0.000	- / 0.000	- / 0.000	- / 1.385	- / -	- / 1.385
P-5	PHM015 / RAPID OPIOID COUNTERMEASURE SYSTEM (ROCS)	P-5a	B		- / 0.000	- / 0.000	- / 0.000	- / 1.549	- / -	- / 1.549
P-5	JD0050 / DECONTAMINATION FAMILY OF SYSTEMS (DFoS)	P-5a	B		- / 29.386	- / 14.932	- / 10.804	- / 4.166	- / -	- / 4.166
P-5	JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)	P-5a, P-21	B		- / 0.917	- / 20.361	- / 3.404	- / 26.367	- / -	- / 26.367
P-5	JD0404 / CONTAMINATED HUMAN REMAINS SYSTEM (CHRS)	P-5a	B		- / 0.000	- / 2.107	- / 3.379	- / 4.818	- / -	- / 4.818
P-5	JI0002 / JS AIRCREW MASK (JSAM)	P-5a, P-21	B		- / 152.103	- / 53.839	- / 67.950	- / 42.059	- / -	- / 42.059
P-5	JI0003 / JOINT SERVICE GENERAL PURPOSE MASK (JSGPM)	P-5a, P-21	A		- / 763.057	- / 13.209	- / 19.802	- / 15.128	- / -	- / 15.128
P-5	JM6677 / ADVANCED ANTICONVULSANT SYSTEM (AAS)	P-5a	B		- / 1.566	- / 0.000	- / 0.000	- / 4.243	- / -	- / 4.243
P-5	JP1111 / JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECP)	P-5a, P-21	B		- / 69.973	- / 17.193	- / 14.496	- / 22.719	- / -	- / 22.719
P-5	JP1112 / CHEMICAL BIOLOGICAL AIRCRAFT SURVIVABILITY BARRIER (CASB)	P-5a	A		- / 0.750	- / 6.759	- / 8.243	- / 0.000	- / -	- / 0.000
P-5	JX0005 / DOD BIOLOGICAL VACCINE PROCUREMENT (VACCINES)	P-5a	B		- / 611.562	- / 0.173	- / 5.500	- / 0.000	- / -	- / 0.000
P-5	MA0400 / PROTECTIVE CLOTHING (JSLIST)	P-5a	A		- / 1,178.944	- / 2.000	- / 2.000	- / 0.000	- / -	- / 0.000
P-5	MA0401 / CBRN UNIFORM INTEGRATED PROTECTION ENSEMBLE (UIPE)	P-5a	A		- / 107.375	- / 9.984	- / 0.000	- / 0.000	- / -	- / 0.000
P-5	PHM008 / CBRN UNIFORM INGRTD PRTCTN ENSEMBLE FAMILY OF SYSTEMS (UIPE FOS)	P-5a	B		- / 0.000	- / 22.010	- / 0.000	- / 0.000	- / -	- / 0.000
P-5	PHM033 / UNIFORM INTEGRATED PROTECTIVE ENSEMBLE GENERAL PURPOSE (UIPE FOS GP)	P-5a, P-21	B		- / 0.000	- / 0.000	- / 1.543	- / 23.067	- / -	- / 23.067
P-5	PHM034 / UNIFORM INTEGRATED PROTECTION ENSEMBLE FOS AIR (UIPE FOS AIR)	P-5a, P-21	B		- / 0.000	- / 0.000	- / 4.786	- / 36.818	- / -	- / 36.818
P-5	PHM018 / SPU RAPID CAPABILITY DEVELOPMENT AND DEMO (SPU RCDD)	P-5a	B		- / 0.000	- / 7.891	- / 5.965	- / 6.946	- / -	- / 6.946
P-5	PHM035 / MODERNIZATION DECONTAMINATION (MODPROT DE)	P-5a	A		- / 0.000	- / 0.000	- / 0.880	- / 0.000	- / -	- / 0.000
P-5	R12301 / CB PROTECTIVE SHELTER (CBPS)		A		- / 400.676	- / 8.308	- / 0.000	- / 0.000	- / -	- / 0.000
P-40	**Total Gross/Weapon System Cost**				**- / 3,316.309**	**- / 178.766**	**- / 148.752**	**- / 189.265**	**- / -**	**- / 189.265**

*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, counternarcotics, 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.

Exhibit P-40, Budget Line Item Justification: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 03: Chemical/Biological Defense / BSA 1: CBDP	**P-1 Line Item Number / Title:** 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
Line Item MDAP/MAIS Code: N/A		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM036 / MODERNIZATION PROTECTION COLLECTIVE PROTECTION (MODPROT CP)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.000	1.385	-	1.385
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.000	1.385	-	1.385
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.000**	**1.385**	**-**	**1.385**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
M18A2 First Article Test Filters(†)	-	-	0.000	-	-	0.000	-	-	0.000	17.620	50	0.881	-	-	-	17.620	50	0.881
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*0.881*	-	-	-	-	-	*0.881*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.881***	**-**	**-**	**-**	**-**	**-**	***0.881***
Support Cost																		
Engineering Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.297	-	-	-	-	-	0.297
Program Management	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.207	-	-	-	-	-	0.207
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.504***	**-**	**-**	**-**	**-**	**-**	***0.504***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**1.385**	**-**	**-**	**-**	**-**	**-**	**1.385**

Remarks:
Modernization Protection Collective Protection (MODPROT CP) projects leverage mature technology from contractor developed components to address and replace obsolete components of various fielded collective protection systems. One of the efforts within the MODPROT CP portfolio is the Mobile Platform Collective Protection Filter Design Modernization that leverages modern manufacturing to reduce the logistical burden on the collective protection portfolio for vehicles. Current configurations of Mobile Platform Collective Protection Systems (MPCPS) use one of two sets of filters, either the M12A2 Gas Filter with the M13 Particulate Filter or the M18A1 Gas Filter with M19 Particulate Filter. These two filter sets are used in conjunction with versions of the M1A1 air purifier and housing to create the M8A3 Gas Particulate

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM036 / MODERNIZATION PROTECTION COLLECTIVE PROTECTION (MODPROT CP)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Filter Unit (GPFU) and the M13A1 GPFU, respectively. The current portfolio will be replaced by a single M18A2 filter and a single M13A2 GPFU to be a Universal Vehicle Filtration System that will reduce logistical complexity, reduce new item procurement cost, and reduce system sustainment costs.

Justification: FY22 will procure 50 new M18A2 filters for First Article Testing.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM036 / MODERNIZATION PROTECTION COLLECTIVE PROTECTION (MODPROT CP)

Cost Elements	OCO	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
M18A2 First Article Test Filters		2022	TBD / N/A	C / FFP	ACC, NJ	Jan 2022	Jul 2022	50	17.620	Y		Jun 2021

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM015 / RAPID OPIOID COUNTERMEASURE SYSTEM (ROCS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.000	1.549	-	1.549
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.000	1.549	-	1.549
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.000**	**1.549**	**-**	**1.549**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Package Fielding Cost																		
Recurring Cost																		
ROCS - Production(†)	-	-	0.000	-	-	0.000	-	-	0.000	0.349	4,121	1.437	-	-	-	0.349	4,121	1.437
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*1.437*	-	-	-	-	-	*1.437*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***1.437***	**-**	**-**	**-**	**-**	**-**	***1.437***
Support Cost																		
ROCS - PMO Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.112	-	-	-	-	-	0.112
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.112***	**-**	**-**	**-**	**-**	**-**	***0.112***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**1.549**	**-**	**-**	**-**	**-**	**-**	**1.549**

Remarks:

Rapid Opioid Countermeasures (ROCS) is a joint Medical Countermeasures (MCM) Rapid Prototyping Middle Tier Acquisition program. The ROCs program is based on a commercial naloxone autoinjector capability. The development and FDA approval of the militarily relevant autoinjector is being conducted under Other Transaction Authority (OTA) agreement. Once FDA approved has been granted, the program will transition to Rapid Fielding or a traditional sustainment program.

ROCS is specifically supporting the characterization, development and fielding of FDA-approved therapeutic MCMs to protect the Joint Service warfighter against operational exposures to the opioid class of pharmaceutical-based agents (PBAs), a high priority. The first increment of the ROCs program will field a naloxone autoinjector as a rescue treatment that will counteract the adverse effects from exposure to opioids.

Justification: FY22 procures 4121 doses, and funds Total Package Fielding (TPF) along with PMO Support.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM015 / RAPID OPIOID COUNTERMEASURE SYSTEM (ROCS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

RDT&E Code B Item: 0604384BP/Proj MC5

MC5/ROCS: RDT&E ; FY2020 - 13.297 Million; FY2021 - 8.417 Million; FY2022 - 11.380 Million

DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES

ROCS - Manufacturing Activities (Oct 2019 to Sep 2022)
ROCS - Human Clinical Studies (Jun 2020 to Sep 2021)
ROCS - FDA (Oct 2021 to Aug 2022)

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM015 / RAPID OPIOID COUNTERMEASURE SYSTEM (ROCS)

Cost Elements	OCO	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
ROCS - Production		2022	kaleo / Richmond, VA	C / CPFF	ACC, NJ	Dec 2021	Jun 2022	4,121	0.349	N		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	29.386	14.932	10.804	4.166	-	4.166
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	29.386	14.932	10.804	4.166	-	4.166
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**29.386**	**14.932**	**10.804**	**4.166**	**-**	**4.166**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	29.386	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS - LARGE SCALE APPLICATOR TACTICAL - Tactical (Nerve)(†)	-	-	0.000	0.665	400	0.266	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS - NERVE INDICATOR KITS SMALL - Small Scale Nerve Kits and Confidence Check Cards(†)	-	-	0.000	0.192	5,724	1.100	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DFOS CIDAS NERVE - LSA Tactical Components(†)	-	-	0.000	-	-	0.000	0.344	1,036	0.356	0.250	1,500	0.375	-	-	-	0.250	1,500	0.375
DFoS CIDAS NERVE - TACTICAL & LARGE SCALE - Reusable(†)	-	-	0.000	-	-	0.000	0.509	1,036	0.527	0.475	1,500	0.713	-	-	-	0.475	1,500	0.713
DFoS CIDAS NERVE - SMALL SCALE APPLICATOR NERVE - Kits(†)	-	-	0.000	-	-	0.000	-	-	0.000	0.191	3,205	0.612	-	-	-	0.191	3,205	0.612
DFoS CIDAS NERVE - LARGE SCALE	-	-	0.000	-	-	0.000	0.797	760	0.606	0.772	1,004	0.775	-	-	-	0.772	1,004	0.775

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
APPLICATOR NERVE & TRAINING - Kits(†)																		
DFoS GPD - DFoS General Purpose Decontaminants(†)	-	-	0.000	0.013	291,547	3.720	0.029	140,050	4.046	0.014	7,142	0.100	-	-	-	0.014	7,142	0.100
DFoS JSEW - Equipment Decontamination Wipes(†)	-	-	0.000	0.010	169,680	1.673	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*29.386*	-	-	*6.759*	-	-	*5.535*	-	-	*2.575*	-	-	-	-	-	*2.575*
Non Recurring Cost																		
DFoS CIDAS Auxiliary/Support Equipment	-	-	0.000	-	-	0.148	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DFoS GPD Production Line (Organic Line)	-	-	0.000	-	-	0.350	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Non Recurring Cost	-	-	*0.000*	-	-	*0.498*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***29.386***	**-**	**-**	***7.257***	**-**	**-**	***5.535***	**-**	**-**	***2.575***	**-**	**-**	**-**	**-**	**-**	***2.575***
Logistics Cost																		
Recurring Cost																		
DFoS CIDAS Contract Delivery Requirements	-	-	0.000	-	-	0.045	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS Nerve Contract Delivery Requirements	-	-	0.000	-	-	0.000	-	-	0.185	-	-	0.035	-	-	-	-	-	0.035
DFoS JSEW Contract Delivery Requirements	-	-	0.000	-	-	0.040	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.085*	-	-	*0.185*	-	-	*0.035*	-	-	-	-	-	*0.035*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***0.085***	**-**	**-**	***0.185***	**-**	**-**	***0.035***	**-**	**-**	**-**	**-**	**-**	***0.035***
Support Cost																		
DFoS CIDAS Surveillance Testing	-	-	0.000	-	-	0.197	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS Engineering Support	-	-	0.000	-	-	0.771	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS Program Management Support	-	-	0.000	-	-	0.677	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DFoS CIDAS Nerve Surveillance Testing	-	-	0.000	-	-	0.000	-	-	0.134	-	-	0.100	-	-	-	-	-	0.100

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
DFoS CIDAS Nerve Program Management Support	-	-	0.000	-	-	0.000	-	-	0.800	-	-	0.465	-	-	-	-	-	0.465
DFoS CIDAS Nerve Engineering Support	-	-	0.000	-	-	0.000	-	-	2.214	-	-	0.620	-	-	-	-	-	0.620
DFoS CIDAS Nerve PVT	-	-	0.000	-	-	0.000	-	-	0.515	-	-	0.000	-	-	-	-	-	0.000
DFoS GPD Production Lot/Verification/Shelf-Life Testing	-	-	0.000	-	-	1.348	-	-	0.639	-	-	0.040	-	-	-	-	-	0.040
DFoS GPD Engineering Support	-	-	0.000	-	-	0.712	-	-	0.494	-	-	0.261	-	-	-	-	-	0.261
DFoS GPD Program Management Support	-	-	0.000	-	-	0.905	-	-	0.288	-	-	0.070	-	-	-	-	-	0.070
DFoS JSEW Engineering Support	-	-	0.000	-	-	0.230	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DFoS JSEW Program Management Support	-	-	0.000	-	-	1.065	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
DFoS JSEW Product Verification Testing	-	-	0.000	-	-	1.685	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	***-***	***-***	***0.000***	***-***	***-***	***7.590***	***-***	***-***	***5.084***	***-***	***-***	***1.556***	***-***	***-***	***-***	***-***	***-***	***1.556***
Gross/Weapon System Cost	**-**	**-**	**29.386**	**-**	**-**	**14.932**	**-**	**-**	**10.804**	**-**	**-**	**4.166**	**-**	**-**	**-**	**-**	**-**	**4.166**

Remarks:
Procurement within 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

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 provides 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 applies directly to contaminated sensitive and non-sensitive equipment and is

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

capable of removing gross contamination and reducing contact hazard immediately without leaving a residue. The DFoS JSEW provides 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 FY22. 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: FY22 funds will procure 7,142 gallons of DFoS GPD chemical and biological (CB) agent thorough decontaminant for Hardened Military Equipment (HME) in support of meeting Full Operational Capability (FOC) in FY22.

FY22 funds will procure 1,500 DFoS CIDAS Nerve Large Scale Applicators (LSA) Tactical, and 3,205 DFoS CIDAS Nerve Small Scale Applicators (SSA) with Confidence Check Cards (CCCs), and 1,004 DFoS CIDAS Nerve LSAs & training kits with CCCs in support of meeting SSA-Nerve IOC in FY26 and FOC in FY29.

RDT&E Code B Item: 0604384BP/Proj DE5

DE5/DFoS CIDAS: RDT&E FY2019 and Prior - 30.424Million; FY2020 - 4.473 Million
DE5/DFoS GPD: RDT&E FY2019 and Prior - 9.383Million
DE5/DFoS JSEW: RDT&E FY2019 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
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 SSA-Nerve Acquisition Decision Memorandum: Aug 2020
DFoS CIDAS - CIDAS SSA-Nerve/LSA Acquisition Program Baseline: Aug 2020
DFoS CIDAS - CIDAS SSA-Nerve Capability Production Document: Aug 2020
DFoS CIDAS - CIDAS SSA-Nerve Life Cycle Sustainment Plan: Aug 2020
DFoS CIDAS - CIDAS Nerve Milestone C: Aug 2020
DFoS CIDAS - CIDAS Nerve Full Rate Production (FRP): Aug 2020
DFoS CIDAS - CIDAS Nerve Test and Evaluation Master Plan: Dec 2020
DFoS CIDAS - CIDAS Nerve Life Cycle Sustainment Plan: Dec 2021

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

DFoS CIDAS - CIDAS Nerve Systems Engineering Plan: Dec 2021
DFoS CIDAS - CIDAS LSA Milestone C: Dec 2021
DFoS CIDAS - CIDAS Nerve Initial Operational Capability: Mar 2026
DFoS CIDAS - CIDAS Nerve Full Operational Capability: Mar 2029
DFoS CIDAS NERVE - CIDAS Nerve Combined Developmental Test (DT)/Operational Test (OT) large chamber (Mar 2021 to May 2021)
DFoS CIDAS NERVE - CIDAS Nerve Combined Developmental Test (DT)/Operational Test (OT) IP Equipement (Apr 2021 to May 2021)
DFoS CIDAS NERVE - CIDAS Nerve MOT&E: Jun 2021
DFoS CIDAS NERVE - CIDAS SSA-Nerve Initial Operational Capability: Mar 2026
DFoS CIDAS NERVE - CIDAS Nerve Full Operational Capability: Mar 2029
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 LRIP Deliveries (Sep 2019 to Dec 2019)
DFoS GPD - GDP FRP Deliveries (Dec 2019 to Aug 2022)
DFoS GPD - GPD Initial Operational Capability: Apr 2020
DFoS GPD - GPD Acquisition Decision Memorandum: Aug 2020
DFoS GPD - GPD Acquisition Program Baseline: Aug 2020
DFoS GPD - GPD Full Rate Production: Aug 2020
DFoS GPD - GPD Life Cycle Sustainment Plan: Aug 2020
DFoS GPD - GPD Full Operational Capability: Dec 2021
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
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 Initial Operational Capability (Marine Corps): Dec 2019
DFoS JSEW - JSEW Full Operational Capability: Jun 2020

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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 TACTICAL - Tactical (Nerve)		2020	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Jun 2020	Jul 2021	400	0.665	Y		
DFoS CIDAS - NERVE INDICATOR KITS SMALL - Small Scale Nerve Kits and Confidence Check Cards		2020	FLIR Systems Inc. / Pittsburgh, PA	C / FP	ACC-APG, Natick, MA	Jun 2020 (1)	Jan 2021	5,724	0.192	Y		
DFOS CIDAS NERVE - LSA Tactical Components		2021	Tooele Army Depot / Tooele, UT	MIPR	Tooele, UT	Feb 2021	May 2021	1,036	0.344	Y		
DFOS CIDAS NERVE - LSA Tactical Components		2022	Tooele Army Depot / Tooele, UT	MIPR	Tooele, UT	Nov 2021	Apr 2022	1,500	0.250	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	1,036	0.509	Y		
DFoS CIDAS NERVE - TACTICAL & LARGE SCALE - Reusable		2022	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2021	Jun 2022	1,500	0.475	Y		
DFoS CIDAS NERVE - SMALL SCALE APPLICATOR NERVE - Kits		2021	FLIR Systems Inc. / Pittsburgh, PA	C / FP	ACC-APG, Natick, MA	Nov 2020 (2)	May 2021	0	0.000	Y		
DFoS CIDAS NERVE - SMALL SCALE APPLICATOR NERVE - Kits		2022	FLIR Systems Inc. / Pittsburgh, PA	C / FP	ACC-APG, Natick, MA	Nov 2021 (3)	May 2022	3,205	0.191	Y		
DFoS CIDAS NERVE - LARGE SCALE APPLICATOR NERVE & TRAINING - Kits		2021	FLIR Systems Inc. / Pittsburgh, PA	C / FP	ACC-APG, Natick, MA	Nov 2020 (4)	May 2021	760	0.797	Y		
DFoS CIDAS NERVE - LARGE SCALE APPLICATOR NERVE & TRAINING - Kits		2022	FLIR Systems Inc. / Pittsburgh, PA	C / FP	ACC-APG, Natick, MA	Nov 2021 (5)	May 2022	1,004	0.772	Y		
DFoS GPD - DFoS General Purpose Decontaminants		2020	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Mar 2020	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	140,050	0.029	Y		
DFoS GPD - DFoS General Purpose Decontaminants		2022	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Nov 2021	Nov 2022	7,142	0.014	Y		
DFoS JSEW - Equipment Decontamination Wipes		2020	STERIS Corporation / Mentor, OH	C / FFP	ACC-APG, Natick, MA	Jan 2020 (6)	Apr 2020	169,680	0.009	Y		

Footnotes:
(1) Option

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

(2) Option
(3) Option
(4) Option
(5) Option
(6) Option

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.917	20.361	3.404	26.367	-	26.367
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.917	20.361	3.404	26.367	-	26.367
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.917**	**20.361**	**3.404**	**26.367**	**-**	**26.367**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	0.917	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
JBADS Hardware(†)	-	-	0.000	7,500.000	1	7.500	-	-	0.000	7,500.000	3	22.500	-	-	-	7,500.000	3	22.500
Subtotal: Recurring Cost	-	-	*0.917*	-	-	*7.500*	-	-	*0.000*	-	-	*22.500*	-	-	-	-	-	*22.500*
Non Recurring Cost																		
JBADS - Modification/ Refurbishment	-	-	0.000	-	-	1.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Non Recurring Cost	-	-	*0.000*	-	-	*1.000*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***0.917***	**-**	**-**	***8.500***	**-**	**-**	***0.000***	**-**	**-**	***22.500***	**-**	**-**	**-**	**-**	**-**	***22.500***
Package Fielding Cost																		
Non Recurring Cost																		
JBADS - FRP Preparation and Reviews	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.223	-	-	-	-	-	0.223
JBADS - Total Package Fielding	-	-	0.000	-	-	0.800	-	-	0.000	-	-	0.300	-	-	-	-	-	0.300
Subtotal: Non Recurring Cost	-	-	*0.000*	-	-	*0.800*	-	-	*0.000*	-	-	*0.523*	-	-	-	-	-	*0.523*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.800***	**-**	**-**	***0.000***	**-**	**-**	***0.523***	**-**	**-**	**-**	**-**	**-**	***0.523***

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Support Cost																		
JBADS - Engineering Support	-	-	0.000	-	-	1.213	-	-	1.229	-	-	0.877	-	-	-	-	-	0.877
JBADS - Program Management	-	-	0.000	-	-	1.291	-	-	0.435	-	-	1.924	-	-	-	-	-	1.924
JBADS - Incentive Fee	-	-	0.000	-	-	1.336	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
JBADS - Production Contractor Engineering and Logistics Support	-	-	0.000	-	-	4.785	-	-	1.740	-	-	0.543	-	-	-	-	-	0.543
JBADS - Production Verification Testing	-	-	0.000	-	-	2.436	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***11.061***	**-**	**-**	***3.404***	**-**	**-**	***3.344***	**-**	**-**	**-**	**-**	**-**	***3.344***
Gross/Weapon System Cost	**-**	**-**	**0.917**	**-**	**-**	**20.361**	**-**	**-**	**3.404**	**-**	**-**	**26.367**	**-**	**-**	**-**	**-**	**-**	**26.367**

Remarks:

The Joint Biological Agent Decontamination System (JBADS) will provide the capability to conduct biological agent decontamination of the interior and exterior of aircraft. There is currently no capability to decontaminate both the inside and outside of aircraft. Additionally, this design incorporates a chemical liner for potential chemical agent decontamination ability. The JBADS capability set will include a decontamination delivery system using hot-humid air, shelter to encapsulate an airframe, an environmental control and monitoring system(s), and other ancillary components. It will provide the capability to decontaminate biologically contaminated airframes to safe levels, allow more rapid return to service, and provides a key cornerstone to future decontamination capability. The JBADS focus is on the biological agent decontamination of the C-130 aircraft and future efforts may address chemical and biological decontamination of other airframes and vehicles.

Justification: In FY22, the JBADS procurement funds support the Full Rate Production Decision and production of three JBADS Systems in support of FOC in FY24.

RDT&E Code B Item: 0603884BP/Proj DE4; 0604384BP/Proj DE5

DE4/JBADS: RDT&E FY2019 and Prior - 4.300Million
DE5/JBADS: RDT&E FY2019 and Prior - 23.611Million; FY2020 - 1.560 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

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

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) (Aug 2020 to Dec 2020)
JBADS - Full Rate Production (FRP): Jun 2022
JBADS - Initial Operational Capability (IOC): Jun 2022
JBADS - Milestone C: Jun 2022
JBADS - Full Operational Capability: Sep 2023

P5: IOC is achieved with one JBADS system.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)

Cost Elements	OCO	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	ACC-APG, Natick, MA	Nov 2019	Jul 2020	1	7,500.000	N		Apr 2018
JBADS Hardware(†)		2022	AeroClave / Winter Park, FL	C / FFP	ACC-APG, Natick, MA	Jul 2022 (7)	Jan 2023	3	7,500.000	Y		

(†) indicates the presence of a P-21

Remarks:
In FY20, the system will be delivered, tested, modified/refurbished then fielded in FY22.
FY22 award is an option.

Footnotes:
(7) (Option)

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)

Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020														Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	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	
JBADS Hardware																															
	1	2020	CBDP	1	0	1		A -	-	-	-	-	-	-	-	1															0
Secondary Distribution			*AF*	*1*	*0*	*1*		*A -*	-	-	-	-	-	-	-	*1*															*0*
	1	2022	CBDP	3	0	3																									3
Secondary Distribution			*AF*	*3*	*0*	*3*																									*3*

OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023											BALANCE
										Calendar Year 2022														Calendar Year 2023								
OCO	MFR #	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	
JBADS Hardware																														
	1	2020	CBDP	1	1	0																								0
Secondary Distribution			*AF*	*1*	*1*	*0*																								*0*
	1	2022	CBDP	3	0	3										A -	-	-	-	-	-	1	-	-	1	-	-	1			0
Secondary Distribution			*AF*	*3*	*0*	*3*										*A* -	-	-	-	-	-	*1*	-	-	*1*	-	-	*1*			*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

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JD0070 / JOINT BIOLOGICAL AGENT DECONTAMINATION SYSTEM (JBADS)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	AeroClave - Winter Park, FL	1	1	1	0	1	8	9	0	9	6	15

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).

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JD0404 / CONTAMINATED HUMAN REMAINS SYSTEM (CHRS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	2.107	3.379	4.818	-	4.818
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	2.107	3.379	4.818	-	4.818
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**2.107**	**3.379**	**4.818**	**-**	**4.818**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
CHRT(†)	-	-	0.000	-	-	0.000	7.100	300	2.130	7.200	300	2.160	-	-	-	7.200	300	2.160
CHRT Surveillance Set Asides	-	-	0.000	-	-	0.281	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
CHRT Production Re-Certification First Article Test Assets	-	-	0.000	-	-	0.533	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
CHRT - Training Assets	-	-	0.000	-	-	0.000	-	-	0.514	-	-	1.100	-	-	-	-	-	1.100
CHRT Sealing Systems(†)	-	-	0.000	-	-	0.000	15.000	7	0.105	15.250	8	0.122	-	-	-	15.250	8	0.122
CHRT PDU KITS(†)	-	-	0.000	-	-	0.000	7.286	7	0.051	7.375	8	0.059	-	-	-	7.375	8	0.059
CHRT - Surveillance/ Shelflife Extension Testing	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.200	-	-	-	-	-	0.200
CHRT - Product Development Support	-	-	0.000	-	-	0.000	-	-	0.073	-	-	0.455	-	-	-	-	-	0.455
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.814*	-	-	*2.873*	-	-	*4.096*	-	-	-	-	-	*4.096*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***0.814***	**-**	**-**	***2.873***	**-**	**-**	***4.096***	**-**	**-**	**-**	**-**	**-**	***4.096***
Support Cost																		
CHRT - Program Management	-	-	0.000	-	-	0.787	-	-	0.506	-	-	0.722	-	-	-	-	-	0.722

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JD0404 / CONTAMINATED HUMAN REMAINS SYSTEM (CHRS)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
CHRT - Re-Certification & First Article Testing	-	-	0.000	-	-	0.506	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***1.293***	**-**	**-**	***0.506***	**-**	**-**	***0.722***	**-**	**-**	**-**	**-**	**-**	***0.722***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**2.107**	**-**	**-**	**3.379**	**-**	**-**	**4.818**	**-**	**-**	**-**	**-**	**-**	**4.818**

Remarks:
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 will address a capability gap identified within both the Contaminated Mitigation (ConMit) Initial Capabilities Document (ICD), dated March 2011, and the Mortuary Affairs ICD, dated October 2008.: 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: FY22 funds will procure 300 Contaminated Human Remains Transfer Case (CHRT) systems, 8 CHRT sealing systems, 8 CHRT Power Distribution Unit (PDU) kits, and training assets in order to support Full Operational Capability (FOC) in FY22. FY22 also funds surveillance/shelf life extension testing to renew the Military Air Waiver for CHRT.

RDT&E Code B Item: 0603884BP/Proj DE4; 0604384BP/Proj DE5

DE4/CHRS: RDT&E FY2019 and Prior - 15.890Million
DE5/CHRS: RDT&E ; FY2020 - 2.074 Million

DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES

CHRS - Capability Development Document (CDD) - CHRT: Feb 2019
CHRS - Critical Design Review (CDR) - CHRT: Aug 2019
CHRS - Operational Test (OT) - CHRT: Sep 2019
CHRS - Devlopmental Test (DT) (Jan 2019 to May 2020)
CHRS - MS C- CHRT: Dec 2020
CHRS - Full Rate Production (FRP) - CHRT: Dec 2020
CHRS - Initial Operational Capability (IOC) - CHRT: Dec 2021
CHRS - Full Operational Capability (FOC) - CHRT: Jan 2023

(†) indicates the presence of a P-5a

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JD0404 / CONTAMINATED HUMAN REMAINS SYSTEM (CHRS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation	Item Number / Title [DODIC]: JD0404 / CONTAMINATED HUMAN REMAINS SYSTEM (CHRS)

Cost Elements	OCO	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
CHRT		2021	Federal Fabrics Fibers / Lowell, MA	SS / FFP	ACC, APG, MD	Dec 2020 (8)	Feb 2021	300	7.100	Y		
CHRT		2022	Federal Fabrics Fibers / Lowell, MA	C / FFP	ACC, APG, MD	Nov 2021 (9)	Jan 2022	300	7.502	Y		
CHRT Sealing Systems		2021	Federal Fabrics Fibers / Lowell, MA	SS / FFP	ACC, APG, MD	Dec 2020 (10)	Feb 2021	7	15.000	Y		
CHRT Sealing Systems		2022	Federal Fabrics Fibers / Lowell, MA	C / FFP	ACC, APG, MD	Nov 2021 (11)	Jan 2022	8	15.000	Y		
CHRT PDU KITS		2021	Federal Fabrics Fibers / Lowell, MA	SS / FFP	ACC, APG, MD	Dec 2020 (12)	Feb 2021	7	7.286	Y		
CHRT PDU KITS		2022	Federal Fabrics Fibers / Lowell, MA	C / FFP	ACC, APG, MD	Nov 2021 (13)	Jan 2022	8	7.375	Y		

Footnotes:

(8) Option

(9) Option

(10) Option

(11) Option

(12) Option

(13) Option

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	152.103	53.839	67.950	42.059	-	42.059
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	152.103	53.839	67.950	42.059	-	42.059
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**152.103**	**53.839**	**67.950**	**42.059**	**-**	**42.059**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	128.698	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
JSAM RW - MPU-5 Hardware - FRP(†)	3.324	5,110	16.986	3.624	1,310	4.747	3.588	4,075	14.623	3.641	4,320	15.729	-	-	-	3.641	4,320	15.729
JSAM RW - Voice Projection Units	-	-	0.000	0.354	779	0.276	0.363	510	0.185	0.382	411	0.157	-	-	-	0.382	411	0.157
JSAM SA - M69 - Hardware - FRP(†)	-	-	0.000	1.625	12,000	19.500	2.148	7,450	16.000	2.834	1,001	2.837	-	-	-	2.834	1,001	2.837
JSAM TA - Mask Systems- FRP(†)	7.642	840	6.419	7.839	840	6.585	9.013	840	7.571	9.413	840	7.907	-	-	-	9.413	840	7.907
Subtotal: Recurring Cost	-	-	*152.103*	-	-	*31.108*	-	-	*38.379*	-	-	*26.630*	-	-	-	-	-	*26.630*
Non Recurring Cost																		
JSAM RW - Energy Absorbing Liners	-	-	0.000	-	-	0.000	0.173	3,150	0.545	-	-	0.000	-	-	-	-	-	0.000
JSAM RW - MPU-6 Hardware	-	-	0.000	8.448	58	0.490	21.600	35	0.756	-	-	0.000	-	-	-	-	-	0.000
JSAM RW - Initial Spares/Fielding Components	-	-	0.000	-	-	0.000	-	-	0.220	-	-	0.282	-	-	-	-	-	0.282
JSAM RW MPU-6 Apache/Tooling/ Testing	-	-	0.000	-	-	0.108	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
JSAM SA M69 - Initial Spares/Components	-	-	0.000	-	-	1.656	-	-	2.210	-	-	0.044	-	-	-	-	-	0.044
JSAM TA - Initial Spares/ Support Equipment	-	-	0.000	-	-	0.218	-	-	0.239	-	-	0.542	-	-	-	-	-	0.542
Subtotal: Non Recurring Cost	-	-	*0.000*	-	-	*2.472*	-	-	*3.970*	-	-	*0.868*	-	-	-	-	-	*0.868*
Subtotal: Hardware Cost	**-**	**-**	***152.103***	**-**	**-**	***33.580***	**-**	**-**	***42.349***	**-**	**-**	***27.498***	**-**	**-**	**-**	**-**	**-**	***27.498***
Logistics Cost																		
Recurring Cost																		
JSAM RW - Config Mgmt/Tech Manuals	-	-	0.000	-	-	0.323	-	-	0.030	-	-	0.030	-	-	-	-	-	0.030
JSAM RW - Logistics Support	-	-	0.000	-	-	0.217	-	-	0.222	-	-	0.459	-	-	-	-	-	0.459
JSAM RW - NET Training/Training Equipment	-	-	0.000	-	-	0.008	-	-	0.082	-	-	0.322	-	-	-	-	-	0.322
JSAM SA M69- Training and Support Equipment	-	-	0.000	-	-	3.417	-	-	3.851	-	-	0.219	-	-	-	-	-	0.219
JSAM SA M69 - New Equipment Training	-	-	0.000	-	-	0.925	-	-	1.580	-	-	1.403	-	-	-	-	-	1.403
JSAM TA - New Equipment Training/ Training Equipment	-	-	0.000	-	-	0.275	-	-	0.282	-	-	0.612	-	-	-	-	-	0.612
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*5.165*	-	-	*6.047*	-	-	*3.045*	-	-	-	-	-	*3.045*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***5.165***	**-**	**-**	***6.047***	**-**	**-**	***3.045***	**-**	**-**	**-**	**-**	**-**	***3.045***
Support Cost																		
JSAM RW - Program Management	-	-	0.000	-	-	0.000	-	-	1.730	-	-	3.087	-	-	-	-	-	3.087
JSAM RW - Engineering Support	-	-	0.000	-	-	0.014	-	-	0.276	-	-	0.515	-	-	-	-	-	0.515
JSAM SA M69- Production Support	-	-	0.000	-	-	2.096	-	-	3.400	-	-	1.232	-	-	-	-	-	1.232
JSAM SA M69 - Program Management	-	-	0.000	-	-	5.542	-	-	5.148	-	-	3.922	-	-	-	-	-	3.922
JSAM SA M69 - Engineering Support	-	-	0.000	-	-	0.103	-	-	2.133	-	-	0.106	-	-	-	-	-	0.106
JSAM TA - Production Support	-	-	0.000	-	-	0.408	-	-	2.296	-	-	0.105	-	-	-	-	-	0.105

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
JSAM TA - Engineering Support	-	-	0.000	-	-	0.311	-	-	2.328	-	-	0.792	-	-	-	-	-	0.792
JSAM TA - Program Management	-	-	0.000	-	-	6.620	-	-	2.243	-	-	1.757	-	-	-	-	-	1.757
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***15.094***	**-**	**-**	***19.554***	**-**	**-**	***11.516***	**-**	**-**	**-**	**-**	**-**	***11.516***
Gross/Weapon System Cost	**-**	**-**	**152.103**	**-**	**-**	**53.839**	**-**	**-**	**67.950**	**-**	**-**	**42.059**	**-**	**-**	**-**	**-**	**-**	**42.059**

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.

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: FY22 funds will procure 4,320 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 FY25. FY22 funds will procure 1,001 JSAM SA production masks, including initial spares, to be used for fielding to various Service aircraft to meet FOC in FY25. JSAM SA will conduct New Equipment Training (NET), procure spare parts and support equipment. FY22 funds will also procure 840 JSAM TA production masks including transit cases, and spares/support equipment to reach United States Navy (USN)/United States Marine Corps (USMC) FOC in FY24.

RDT&E Code B Item: 0604384BP/Proj IP5

IP5/JSAM RW: RDT&E FY2019 and Prior - 23.010Million
IP5/JSAM SA: RDT&E FY2019 and Prior - 17.990Million; FY2020 - 1.103 Million; FY2021 - 1.145 Million; FY2022 - 1.153 Million
IP5/JSAM TA: RDT&E FY2019 and Prior - 17.621Million

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

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

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: Mar 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: Mar 2025
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 Sep 2023)
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): Mar 2021
JSAM SA - Full Operational Capability (FOC): Sep 2024
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): May 2024

P5: JSAM RW and JSAM TA masks are service ready coded A. However, the JSAM exhibit includes JSAM SA masks which are not all service ready yet (fielding decisions planned thru 3QFY22), therefore the entire exhibit is coded B.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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(†)		2019	AVOX Systems Inc. / Lancaster, NY	C / FFP	ACC, APG, MD	Jun 2019	Jun 2020	3,365	3.324	Y		Aug 2018
JSAM RW - MPU-5 Hardware - FRP(†)		2019	AVOX Systems Inc / Lancaster, NY	C / FFP	ACC, APG, MD	Sep 2019 (14)	Apr 2021	1,745	3.324	Y		
JSAM RW - MPU-5 Hardware - FRP(†)		2020	AVOX Systems Inc / Lancaster, NY	C / FFP	ACC, APG, MD	Mar 2020 (15)	Aug 2021	1,310	3.624	Y		
JSAM RW - MPU-5 Hardware - FRP(†)		2021	AVOX Systems Inc / Lancaster, NY	C / FFP	ACC, APG, MD	May 2021 (16)	Jan 2022	4,075	3.588	Y		
JSAM RW - MPU-5 Hardware - FRP(†)		2022	AVOX Systems Inc / Lancaster, NY	C / FFP	ACC, APG, MD	Dec 2021 (17)	Jan 2023	4,320	3.605	Y		
JSAM SA - M69 - Hardware - FRP		2020	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	ACC, APG, MD	Feb 2020 (18)	Jul 2020	12,000	1.625	Y		
JSAM SA - M69 - Hardware - FRP		2021	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	ACC, APG, MD	Mar 2021 (19)	Jul 2021	7,450	2.148	Y		
JSAM SA - M69 - Hardware - FRP		2022	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	ACC, APG, MD	Feb 2022 (20)	Jul 2022	1,001	2.834	Y		
JSAM TA - Mask Systems- FRP(†)		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	Feb 2020 (21)	May 2020	840	7.839	Y		
JSAM TA - Mask Systems- FRP(†)		2021	Cam Lock Limited / Aldershot Hampshire, UK	SS / FFP	NAVAIR, Patuxent River, MD	Mar 2021 (22)	May 2021	840	9.013	Y		
JSAM TA - Mask Systems- FRP(†)		2022	Cam Lock Limited / Aldershot Hampshire, UK	SS / FFP	NAVAIR, Patuxent River, MD	Dec 2021 (23)	May 2022	840	9.413	Y		

(†) indicates the presence of a P-21

Remarks:
JSAM for Rotary Wing (JSAM RW) had two contract awards in FY19.
JSAM for Strategic Aircraft (JSAM SA) had two contract awards in FY19. The unit cost of JSAM SA masks increases in FY22 due to decreased quantity of masks.

Footnotes:
(14) Delivery Order
(15) Delivery Order
(16) Delivery Order
(17) Delivery Order
(18) Delivery Order
(19) Delivery Order
(20) Delivery Order

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

(21) Delivery Order
(22) Delivery Order
(23) Delivery Order

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	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	
JSAM RW - MPU-5 Hardware - FRP																															
	1	2019	CBDP	3,365	0	3,365									A -	-	-	-	-	-	-	-	-	-	-	108	360	360	360	2,177
Secondary Distribution			*ARMY*	*1,892*	*0*	*1,892*									*A -*	-	-	-	-	-	-	-	-	-	-	*35*	*242*	*360*	*360*	*895*
			MC	*1,473*	*0*	*1,473*									*A -*	-	-	-	-	-	-	-	-	-	-	*73*	*118*	-	-	*1,282*
	2	2019	CBDP	1,745	0	1,745												A -	-	-	-	-	-	-	-	-	-	-	-	1,745
Secondary Distribution			*ARMY*	*1,745*	*0*	*1,745*												*A -*	-	-	-	-	-	-	-	-	-	-	-	*1,745*
	2	2020	CBDP	1,310	0	1,310																	A -	-	-	-	-	-	-	1,310
Secondary Distribution			*ARMY*	*538*	*0*	*538*																	*A -*	-	-	-	-	-	-	*538*
			MC	*772*	*0*	*772*																	*A -*	-	-	-	-	-	-	*772*
	2	2021	CBDP	4,075	0	4,075																								4,075
Secondary Distribution			*ARMY*	*3,203*	*0*	*3,203*																								*3,203*
			MC	*450*	*0*	*450*																								*450*
			NAVY	*422*	*0*	*422*																								*422*
	2	2022	CBDP	4,320	0	4,320																								4,320
Secondary Distribution			*ARMY*	*4,320*	*0*	*4,320*																								*4,320*
JSAM TA - Mask Systems- FRP																															
	3	2019	CBDP	840	0	840												A -	-	-	-	-	75	75	75	75	80	80	80	80	220
Secondary Distribution			*MC*	*410*	*0*	*410*												*A -*	-	-	-	-	*35*	*35*	*35*	*35*	*40*	*40*	*40*	*40*	*110*
			NAVY	*430*	*0*	*430*												*A -*	-	-	-	-	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*110*
	3	2020	CBDP	840	0	840																	A -	-	-	50	55	55	55	55	570
Secondary Distribution			*MC*	*431*	*0*	*431*																	*A -*	-	-	*25*	*25*	*25*	*25*	*14*	*317*
			NAVY	*409*	*0*	*409*																	*A -*	-	-	*25*	*30*	*30*	*30*	*41*	*253*
	3	2021	CBDP	840	0	840																								840
Secondary Distribution			*MC*	*670*	*0*	*670*																								*670*
			NAVY	*170*	*0*	*170*																								*170*
	3	2022	CBDP	840	0	840																								840
Secondary Distribution			*MC*	*600*	*0*	*600*																								*600*
			NAVY	*240*	*0*	*240*																								*240*
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program | **Date:** May 2021

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 Each)							Fiscal Year 2021												Fiscal Year 2022											BALANCE
							Calendar Year 2021												Calendar Year 2022											
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	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	
JSAM RW - MPU-5 Hardware - FRP																														
	1	2019	CBDP	3,365	1,188	2,177	360	360	360	360	360	360	17																	0
Secondary Distribution			*ARMY*	*1,892*	*997*	*895*	*360*	*360*	*175*	-	-	-	-																	*0*
			MC	*1,473*	*191*	*1,282*	-	-	*185*	*360*	*360*	*360*	*17*																	*0*
	2	2019	CBDP	1,745	0	1,745	-	-	-	-	-	-	343	360	360	360	322													0
Secondary Distribution			*ARMY*	*1,745*	*0*	*1,745*	-	-	-	-	-	-	*343*	*360*	*360*	*360*	*322*													*0*
	2	2020	CBDP	1,310	0	1,310	-	-	-	-	-	-	-	-	-	-	38	360	360	360	192									0
Secondary Distribution			*ARMY*	*538*	*0*	*538*	-	-	-	-	-	-	-	-	-	-	*38*	*260*	*43*	*93*	*104*									*0*
			MC	*772*	*0*	*772*	-	-	-	-	-	-	-	-	-	-	-	*100*	*317*	*267*	*88*									*0*
	2	2021	CBDP	4,075	0	4,075								A	-	-	-	-	-	-	-	360	360	360	360	360	360	360	360	360	835
Secondary Distribution			*ARMY*	*3,203*	*0*	*3,203*								*A*	-	-	-	-	-	-	-	*360*	*360*	*360*	*360*	*360*	*360*	*315*	*291*	*3*	*434*
			MC	*450*	*0*	*450*								*A*	-	-	-	-	-	-	-	-	-	-	-	-	-	*45*	*69*	*336*	*0*
			NAVY	*422*	*0*	*422*								*A*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*21*	*401*
	2	2022	CBDP	4,320	0	4,320															A	-	-	-	-	-	-	-	-	-	4,320
Secondary Distribution			*ARMY*	*4,320*	*0*	*4,320*															*A*	-	-	-	-	-	-	-	-	-	*4,320*
JSAM TA - Mask Systems- FRP																														
	3	2019	CBDP	840	620	220	80	80	60																					0
Secondary Distribution			*MC*	*410*	*300*	*110*	*40*	*40*	*30*																					*0*
			NAVY	*430*	*320*	*110*	*40*	*40*	*30*																					*0*
	3	2020	CBDP	840	270	570	55	55	60	60	115	115	110																	0
Secondary Distribution			*MC*	*431*	*114*	*317*	-	-	-	-	*92*	*115*	*110*																	*0*
			NAVY	*409*	*156*	*253*	*55*	*55*	*60*	*60*	*23*	-	-																	*0*
	3	2021	CBDP	840	0	840						A	-	-	70	70	70	70	70	70	70	70	70	70	70					0
Secondary Distribution			*MC*	*670*	*0*	*670*						*A*	-	-	*70*	*70*	*70*	*70*	*70*	*70*	*35*	*35*	*35*	*35*	*40*	*70*				*0*
			NAVY	*170*	*0*	*170*						*A*	-	-	-	-	-	-	-	-	*35*	*35*	*35*	*35*	*30*	-				*0*
	3	2022	CBDP	840	0	840															A	-	-	-	-	70	70	70	70	70	490
Secondary Distribution			*MC*	*600*	*0*	*600*															*A*	-	-	-	-	-	-	-	*40*	*70*	*490*
			NAVY	*240*	*0*	*240*															*A*	-	-	-	-	*70*	*70*	*70*	*30*	-	*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	

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 Each)							Fiscal Year 2023												Fiscal Year 2024												
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	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
JSAM RW - MPU-5 Hardware - FRP																															
	1	2019	CBDP	3,365	3,365	0																									0
Secondary Distribution			*ARMY*	*1,892*	*1,892*	*0*																									*0*
			MC	*1,473*	*1,473*	*0*																									*0*
	2	2019	CBDP	1,745	1,745	0																									0
Secondary Distribution			*ARMY*	*1,745*	*1,745*	*0*																									*0*
	2	2020	CBDP	1,310	1,310	0																									0
Secondary Distribution			*ARMY*	*538*	*538*	*0*																									*0*
			MC	*772*	*772*	*0*																									*0*
	2	2021	CBDP	4,075	3,240	835	360	360	115																						0
Secondary Distribution			*ARMY*	*3,203*	*2,769*	*434*	-	*319*	*115*																						*0*
			MC	*450*	*450*	*0*	-	-	-																						*0*
			NAVY	*422*	*21*	*401*	*360*	*41*	-																						*0*
	2	2022	CBDP	4,320	0	4,320	-	-	-	360	360	360	360	360	360	360	360	360	360	360	360										0
Secondary Distribution			*ARMY*	*4,320*	*0*	*4,320*	-	-	-	*360*	*360*	*360*	*360*	*360*	*360*	*360*	*360*	*360*	*360*	*360*	*360*										*0*
JSAM TA - Mask Systems- FRP																															
	3	2019	CBDP	840	840	0																									0
Secondary Distribution			*MC*	*410*	*410*	*0*																									*0*
			NAVY	*430*	*430*	*0*																									*0*
	3	2020	CBDP	840	840	0																									0
Secondary Distribution			*MC*	*431*	*431*	*0*																									*0*
			NAVY	*409*	*409*	*0*																									*0*
	3	2021	CBDP	840	840	0																									0
Secondary Distribution			*MC*	*670*	*670*	*0*																									*0*
			NAVY	*170*	*170*	*0*																									*0*
	3	2022	CBDP	840	350	490	70	70	70	70	70	70	70																		0
Secondary Distribution			*MC*	*600*	*110*	*490*	*70*	*70*	*70*	*70*	*70*	*70*	*70*																		*0*
			NAVY	*240*	*240*	*0*	-	-	-	-	-	-	-																		*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	

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	90	720	800	0	8	12	20	0	8	12	20
2	AVOX Systems Inc - Lancaster, NY	45	360	400	0	11	19	30	0	2	13	15
3	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).

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	763.057	13.209	19.802	15.128	-	15.128
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	763.057	13.209	19.802	15.128	-	15.128
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**763.057**	**13.209**	**19.802**	**15.128**	**-**	**15.128**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	763.057	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
JSGPM - Ground/Ship (M53A1)(†)	-	-	0.000	2.556	1,658	4.238	2.355	3,589	8.452	2.728	1,886	5.145	-	-	-	2.728	1,886	5.145
Subtotal: Recurring Cost	*-*	*-*	*763.057*	*-*	*-*	*4.238*	*-*	*-*	*8.452*	*-*	*-*	*5.145*	*-*	*-*	*-*	*-*	*-*	*5.145*
Non Recurring Cost																		
Initial Spares	-	-	0.000	-	-	3.277	-	-	4.325	-	-	3.026	-	-	-	-	-	3.026
Subtotal: Non Recurring Cost	-	-	*0.000*	-	-	*3.277*	-	-	*4.325*	-	-	*3.026*	-	-	-	-	-	*3.026*
Subtotal: Hardware Cost	**-**	**-**	***763.057***	**-**	**-**	***7.515***	**-**	**-**	***12.777***	**-**	**-**	***8.171***	**-**	**-**	**-**	**-**	**-**	***8.171***
Package Fielding Cost																		
Recurring Cost																		
System Fielding Support (Total Package Fielding, First Destination Transportation & New Equipment...	-	-	0.000	-	-	1.809	-	-	1.858	-	-	1.994	-	-	-	-	-	1.994
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*1.809*	-	-	*1.858*	-	-	*1.994*	-	-	-	-	-	*1.994*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***1.809***	**-**	**-**	***1.858***	**-**	**-**	***1.994***	**-**	**-**	**-**	**-**	**-**	***1.994***
Support Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Engineering Support	-	-	0.000	-	-	2.583	-	-	2.302	-	-	2.344	-	-	-	-	-	2.344
Program Management	-	-	0.000	-	-	1.073	-	-	2.445	-	-	2.269	-	-	-	-	-	2.269
Production Acceptance Test	-	-	0.000	-	-	0.229	-	-	0.420	-	-	0.350	-	-	-	-	-	0.350
Subtotal: Support Cost	***-***	***-***	***0.000***	***-***	***-***	***3.885***	***-***	***-***	***5.167***	***-***	***-***	***4.963***	***-***	***-***	***-***	***-***	***-***	***4.963***
Gross/Weapon System Cost	**-**	**-**	**763.057**	**-**	**-**	**13.209**	**-**	**-**	**19.802**	**-**	**-**	**15.128**	**-**	**-**	**-**	**-**	**-**	**15.128**

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 upgraded M53 and also a 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: FY22 funds procure 1,886 JSGPM Ground/Ship NIOSH (M53A1) masks with blowers, training, initial spares, and total package fielding to support Army requirements.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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)(†)		2021	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	RDECOM, APG, MD	Nov 2020 (24)	Sep 2021	3,589	2.355	Y		
JSGPM - Ground/Ship (M53A1)(†)		2022	AVON Protection Systems Inc. / Cadillac, MI	SS / FFP	RDECOM, APG, MD	Jan 2022 (25)	Jul 2022	1,886	2.728	Y		

(†) indicates the presence of a P-21

Footnotes:
(24) Delivery Order
(25) Delivery Order

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 (Units in Each)							Fiscal Year 2021												Fiscal Year 2022											BALANCE
							Calendar Year 2021												Calendar Year 2022											
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	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	
JSGPM - Ground/Ship (M53A1)																														
	1	2021	CBDP	3,589	0	3,589		A -	-	-	-	-	-	-	-	-	-	3,589												0
Secondary Distribution			*ARMY*	*3,589*	*0*	*3,589*		*A -*	-	-	-	-	-	-	-	-	-	*3,589*												*0*
	1	2022	CBDP	1,886	0	1,886																A -	-	-	-	-	-	1,886			0
Secondary Distribution			*ARMY*	*1,886*	*0*	*1,886*																*A -*	-	-	-	-	-	*1,886*			*0*

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	AVON Protection Systems Inc. - Cadillac, MI	1,000	2,566	10,267	0	5	6	11	0	3	6	9

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).

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JM6677 / ADVANCED ANTICONVULSANT SYSTEM (AAS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1.566	0.000	0.000	4.243	-	4.243
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1.566	0.000	0.000	4.243	-	4.243
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1.566**	**0.000**	**0.000**	**4.243**	**-**	**4.243**
(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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	1.566	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
AAS - Production(†)	-	-	0.000	-	-	0.000	-	-	0.000	0.079	50,000	3.935	-	-	-	0.079	50,000	3.935
Subtotal: Recurring Cost	-	-	*1.566*	-	-	*0.000*	-	-	*0.000*	-	-	*3.935*	-	-	-	-	-	*3.935*
Subtotal: Hardware Cost	**-**	**-**	***1.566***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***3.935***	**-**	**-**	**-**	**-**	**-**	***3.935***
Support Cost																		
AAS - PMO Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.308	-	-	-	-	-	0.308
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.308***	**-**	**-**	**-**	**-**	**-**	***0.308***
Gross/Weapon System Cost	**-**	**-**	**1.566**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**4.243**	**-**	**-**	**-**	**-**	**-**	**4.243**

Remarks:

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 Food and Drug Administration (FDA).

Justification: FY22 procurement funds will support initiation of production and fielding of product toward fulfillment of IOC.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JM6677 / ADVANCED ANTICONVULSANT SYSTEM (AAS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

RDT&E Code B Item: 0604384BP/Proj MC5

MC5/AAS: RDT&E FY2019 and Prior - 61.206Million; FY2021 - 4.048 Million; FY2022 - 3.229 Million

DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES

AAS - Milestone C: Jun 2013
AAS - FDA Approval: Sep 2022
AAS - FRP: Jun 2023
AAS - IOC: Sep 2023
AAS - FOC: Sep 2025

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JM6677 / ADVANCED ANTICONVULSANT SYSTEM (AAS)

Cost Elements	OCO	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
AAS - Production		2022	TBD / N/A	SS / FFP	TBD	Dec 2021	Aug 2022	50,000	0.079	Y		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	69.973	17.193	14.496	22.719	-	22.719
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	69.973	17.193	14.496	22.719	-	22.719
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**69.973**	**17.193**	**14.496**	**22.719**	**-**	**22.719**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	54.930	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
TENT KIT 2(†)	-	-	0.000	164.400	5	0.822	160.875	16	2.574	158.375	16	2.534	-	-	-	158.375	16	2.534
TENT STANDALONE LARGE - STANDALONE SHELTER LARGE(†)	259.362	58	15.043	290.114	35	10.154	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
TENT KIT 1(†)	-	-	0.000	-	-	0.000	-	-	0.000	114.667	9	1.032	-	-	-	114.667	9	1.032
TENT KIT 3(†)	-	-	0.000	-	-	0.000	-	-	0.000	171.667	3	0.515	-	-	-	171.667	3	0.515
TENT KIT Single Skin(†)	-	-	0.000	-	-	0.000	225.520	25	5.638	231.243	37	8.556	-	-	-	231.243	37	8.556
Engineer Changes/ Modifications	-	-	0.000	-	-	0.214	-	-	0.767	-	-	3.692	-	-	-	-	-	3.692
Subtotal: Recurring Cost	*-*	*-*	*69.973*	*-*	*-*	*11.190*	*-*	*-*	*8.979*	*-*	*-*	*16.329*	*-*	*-*	*-*	*-*	*-*	*16.329*
Non Recurring Cost																		
Spares	-	-	0.000	-	-	0.153	-	-	0.226	-	-	0.146	-	-	-	-	-	0.146
Subtotal: Non Recurring Cost	*-*	*-*	*0.000*	*-*	*-*	*0.153*	*-*	*-*	*0.226*	*-*	*-*	*0.146*	*-*	*-*	*-*	*-*	*-*	*0.146*
Subtotal: Hardware Cost	***-***	***-***	***69.973***	***-***	***-***	***11.343***	***-***	***-***	***9.205***	***-***	***-***	***16.475***	***-***	***-***	***-***	***-***	***-***	***16.475***
Package Fielding Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Recurring Cost																		
Training / Fielding / CLS	-	-	0.000	-	-	2.315	-	-	2.212	-	-	1.650	-	-	-	-	-	1.650
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*2.315*	-	-	*2.212*	-	-	*1.650*	-	-	-	-	-	*1.650*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***2.315***	**-**	**-**	***2.212***	**-**	**-**	***1.650***	**-**	**-**	**-**	**-**	**-**	***1.650***
Logistics Cost																		
Recurring Cost																		
Technical Data	-	-	0.000	-	-	0.201	-	-	0.184	-	-	0.241	-	-	-	-	-	0.241
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.201*	-	-	*0.184*	-	-	*0.241*	-	-	-	-	-	*0.241*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***0.201***	**-**	**-**	***0.184***	**-**	**-**	***0.241***	**-**	**-**	**-**	**-**	**-**	***0.241***
Support Cost																		
Program Management and Support	-	-	0.000	-	-	2.027	-	-	2.174	-	-	3.410	-	-	-	-	-	3.410
Systems Engineering	-	-	0.000	-	-	1.307	-	-	0.721	-	-	0.943	-	-	-	-	-	0.943
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***3.334***	**-**	**-**	***2.895***	**-**	**-**	***4.353***	**-**	**-**	**-**	**-**	**-**	***4.353***
Gross/Weapon System Cost	**-**	**-**	**69.973**	**-**	**-**	**17.193**	**-**	**-**	**14.496**	**-**	**-**	**22.719**	**-**	**-**	**-**	**-**	**-**	**22.719**

Remarks:

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.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

Justification: FY22 funds will procure 65 JECP systems in the following configurations:16 TK2s and 37 TKSS's for Air Force and 9 TK1s and 3 TK3s for Navy.

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

CO5/JECP: RDT&E FY2019 and Prior - 123.457Million; FY2020 - 6.311 Million; FY2021 - 7.885 Million; FY2022 - 3.028 Million
CO7/JECP: RDT&E FY2019 and Prior - 13.328Million; FY2020 - 1.955 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: Sep 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 Test and Evaluation Master Plan (TEMP): Jan 2020
JECP - Phase 2 Full Rate Production: Sep 2021
JECP - Phase 2 Initial Operational Capability (IOC): Dec 2022
JECP - Full Operational Capability (FOC): Dec 2029

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

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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		2020	Production Products Inc. / St Louis, MO	C / FFP	ACC-APG, Natick, MA	Jun 2020 (26)	May 2021	5	164.400	Y		
TENT KIT 2		2021	Production Products Inc. / St Louis, MO	C / FFP	ACC-APG, Natick, MA	May 2021 (27)	Mar 2022	16	160.875	Y		
TENT KIT 2		2022	Production Products Inc. / St Louis, MO	C / FFP	ACC-APG, Natick, MA	Jan 2022 (28)	Nov 2022	16	156.188	Y		
TENT STANDALONE LARGE - STANDALONE SHELTER LARGE		2019	Production Products Inc. / St Louis, MO	C / FFP	ACC-APG, Natick, MA	Jun 2019	Aug 2020	58	259.362	Y		Apr 2019
TENT STANDALONE LARGE - STANDALONE SHELTER LARGE		2020	Production Products Inc. / St Louis, MO	C / FFP	ACC-APG, Natick, MA	Jun 2020 (29)	Jul 2021	35	290.114	Y		
TENT KIT 1		2022	Leidos / Abingdon, MD	C / FFP	ACC-APG, Natick, MA	Jan 2022 (30)	Nov 2022	9	114.667	Y		
TENT KIT 3		2022	Leidos / Abingdon, MD	C / FFP	ACC-APG, Natick, MA	Jan 2022 (31)	Nov 2022	3	171.667	Y		
TENT KIT Single Skin(†)		2021	Leidos / Abingdon, MD	C / FFP	ACC-APG, Natick, MA	Apr 2021 (32)	Feb 2022	25	225.520	Y		
TENT KIT Single Skin(†)		2022	Leidos / Abingdon, MD	C / FFP	ACC-APG, Natick, MA	Jan 2022 (33)	Nov 2022	37	231.243	Y		

(†) indicates the presence of a P-21

Footnotes:

(26) Option

(27) Option 2

(28) Option 3

(29) Option 1

(30) Option 2

(31) Option 2

(32) Option 1

(33) Option 2

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	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	
TENT KIT Single Skin																															
	1	2021	CBDP	25	0	25																									25
Secondary Distribution			*AF*	*25*	*0*	*25*																									*25*
	1	2022	CBDP	37	0	37																									37
Secondary Distribution			*AF*	*37*	*0*	*37*																									*37*

OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 2021												Fiscal Year 2022											BALANCE
										Calendar Year 2021														Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	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	
TENT KIT Single Skin																														
	1	2021	CBDP	25	0	25							A	-	-	-	-	-	-	-	-	-	25								0
Secondary Distribution			*AF*	*25*	*0*	*25*							*A*	-	-	-	-	-	-	-	-	-	*25*								*0*
	1	2022	CBDP	37	0	37																A	-	-	-	-	-	-	-	-	37
Secondary Distribution			*AF*	*37*	*0*	*37*																*A*	-	-	-	-	-	-	-	-	*37*

OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	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	
TENT KIT Single Skin																														
	1	2021	CBDP	25	25	0																								0
Secondary Distribution			*AF*	*25*	*25*	*0*																								*0*
	1	2022	CBDP	37	0	37	-	20	17																					0
Secondary Distribution			*AF*	*37*	*0*	*37*	-	*20*	*17*																					*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

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	6	10	16	0	3	13	16

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).

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.750	6.759	8.243	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.750	6.759	8.243	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.750**	**6.759**	**8.243**	**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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	0.750	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
CASB System(†)	-	-	0.000	119.962	53	6.358	99.903	62	6.194	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.750*	-	-	*6.358*	-	-	*6.194*	-	-	*0.000*	-	-	-	-	-	*0.000*
Non Recurring Cost																		
System Batteries	-	-	0.000	-	-	0.018	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Non Recurring Cost	-	-	*0.000*	-	-	*0.018*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***0.750***	**-**	**-**	***6.376***	**-**	**-**	***6.194***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Logistics Cost																		
Recurring Cost																		
Shipping	-	-	0.000	-	-	0.050	-	-	0.338	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.050*	-	-	*0.338*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***0.050***	**-**	**-**	***0.338***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
CASB Spare Part Kits	-	-	0.000	-	-	0.000	18.810	21	0.395	-	-	0.000	-	-	-	-	-	0.000
CASB - M48A1 Filters	-	-	0.000	-	-	0.000	1.169	124	0.145	-	-	0.000	-	-	-	-	-	0.000
Technical Support	-	-	0.000	-	-	0.068	-	-	0.739	-	-	0.000	-	-	-	-	-	0.000

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Program Management	-	-	0.000	-	-	0.265	-	-	0.432	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.333***	**-**	**-**	***1.711***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**0.750**	**-**	**-**	**6.759**	**-**	**-**	**8.243**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

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.

Note: FY20 funding includes Congressional Increase in the PHM BLIN ($1.7 Million). Funds allowed for increase in FY20 production from 40 to 53 systems, allowing FOC achievement earlier than planned, and removed FY22 funding requirement.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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
CASB System		2020	Integrated Solutions for Systems (IS4S) / Huntsville, AL	C / CPFF	ACC-APG, Natick, MA	Apr 2020 (34)	Jun 2020	53	119.962	Y		Jun 2018
CASB System		2021	Integrated Solutions for Systems (IS4S) / Huntsville, AL	C / FFP	ACC-APG, Natick, MA	Jul 2021 (35)	Dec 2021	62	99.903	Y		

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:
(34) Delivery Order
(35) (Delivery Order)

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JX0005 / DOD BIOLOGICAL VACCINE PROCUREMENT (VACCINES)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	611.562	0.173	5.500	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	611.562	0.173	5.500	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**611.562**	**0.173**	**5.500**	**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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	611.562	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
TPOXX(†)	-	-	0.000	-	-	0.000	0.667	6,000	4.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*611.562*	-	-	*0.000*	-	-	*4.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***611.562***	**-**	**-**	***0.000***	**-**	**-**	***4.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Package Fielding Cost																		
Recurring Cost																		
Vaccinia Immune Globulin-Support Costs	-	-	0.000	-	-	0.173	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.173*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.173***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
PMO Support	-	-	0.000	-	-	0.000	-	-	1.500	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***1.500***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**611.562**	**-**	**-**	**0.173**	**-**	**-**	**5.500**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** JX0005 / DOD BIOLOGICAL VACCINE PROCUREMENT (VACCINES)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

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.

In FY21, a $5.5 Million Congressional Add was provided to increase the smallpox antiviral stockpile, approximately 6,000 TPOXX 14-day treatment courses will be procured to replenish and maintain the current inventory. Force Health Protection (FHP) manages the current TPOXX stockpile for the Department of Defense (DoD). This effort will cover FHP's procurement, pre-positioning, distribution of TPOXX, and USAMRDC Office of Regulated Activities (ORA) regulatory support for the Emergency/Contingency use of TPOXX for the post-exposure prophylaxis and treatment of smallpox and other orthopox-viruses.

Justification: There is no FY22 PB request.

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

MB5/VAC BOT: RDT&E FY2019 and Prior - 423.691Million; FY2020 - 39.649 Million
MB5/VAC PLG: RDT&E FY2019 and Prior - 440.964Million; FY2020 - 26.390 Million

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	P-1 Line Item Number / Title: 8001PH1000 / CB Protection & Hazard Mitigation	Item Number / Title [DODIC]: JX0005 / DOD BIOLOGICAL VACCINE PROCUREMENT (VACCINES)

Cost Elements	OCO	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
TPOXX		2021	TBD / N/A	TBD	**Error - Need PCO Location**	Jun 2021	Dec 2023	6,000	0.667	Y		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** MA0400 / PROTECTIVE CLOTHING (JSLIST)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,178.944	2.000	2.000	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,178.944	2.000	2.000	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,178.944**	**2.000**	**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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	1,178.944	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
PROTECTIVE SUIT - JSLIST Garment(†)	-	-	0.000	0.299	5,886	1.760	0.298	6,688	1.990	-	-	0.000	-	-	-	-	-	0.000
IFS	-	-	0.000	0.083	1,446	0.120	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*1,178.944*	-	-	*1.880*	-	-	*1.990*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***1,178.944***	**-**	**-**	***1.880***	**-**	**-**	***1.990***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
Production Lot Testing (PLT)	-	-	0.000	-	-	0.120	-	-	0.010	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.120***	**-**	**-**	***0.010***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**1,178.944**	**-**	**-**	**2.000**	**-**	**-**	**2.000**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:
The Joint Service Lightweight Integrated Suit Technology (JSLIST) is a Joint Service chemical protective ensemble and production program. The protective clothing program provides service members with 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. Protective clothing includes ensemble items such as gloves and the Integrated Footwear System (IFS) to provide Chemical and Biological (CB) protection. FY18-21 Protective Clothing program funds will procure 1,446 IFS and 24,910 JSLIST pieces. Beginning in FY22, the services will transition to UIPE FoS for their protective ensemble needs.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** MA0400 / PROTECTIVE CLOTHING (JSLIST)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Note: FY21 includes Congressional Increase of $2.0 Million.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** MA0400 / PROTECTIVE CLOTHING (JSLIST)

Cost Elements	OCO	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		2020	ReadyOne Industries / El Paso, TX	C / FFP	ACC, APG, MD	Apr 2021	Nov 2021	5,886	0.299	Y		
PROTECTIVE SUIT - JSLIST Garment		2021	ReadyOne Industries / El Paso, TX	C / FFP	ACC, APG, MD	Apr 2021	Mar 2022	6,688	0.298	Y		Feb 2021

Remarks:
FY20 and FY21 awards will be a modification to the FY19 contract. These are not Option Years nor Delivery Orders.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	107.375	9.984	0.000	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	107.375	9.984	0.000	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**107.375**	**9.984**	**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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	99.322	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
UIPE 1 - Ensembles - FRP(†)	0.503	16,000	8.053	0.521	12,400	6.460	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*107.375*	-	-	*6.460*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***107.375***	**-**	**-**	***6.460***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Logistics Cost																		
Recurring Cost																		
Contractor Logistics Support	-	-	0.000	-	-	0.804	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.804*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***0.804***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
Ancillary Equipment	-	-	0.000	-	-	0.100	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Production Lot Testing	-	-	0.000	-	-	0.144	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Program Management	-	-	0.000	-	-	1.574	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Engineering Support	-	-	0.000	-	-	0.902	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***2.720***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Gross/Weapon System Cost	-	-	107.375	-	-	9.984	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000

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 developed, integrated, tested, procured and fielded 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. 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 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: Production ends in FY20

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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		2019	Tennessee Apparel Corporation / Tullahoma, TN	C / FFP	RDECOM, Natick, MA	Dec 2018 (36)	Jan 2019	16,000	0.503	Y		
UIPE 1 - Ensembles - FRP		2020	Tennessee Apparel Corporation / Tullahoma, TN	C / FFP	RDECOM, Natick, MA	Nov 2019 (37)	Dec 2019	12,400	0.521	Y		

Remarks:
In FY20, UIPE 1 awarded the final delivery order for the procurement of 12,400 complete ensembles. Upon completion of this delivery order, a total of 174,000 complete ensembles will have been fielded to USSOCOM.

Footnotes:
(36) Delivery Order
(37) Delivery Order

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM008 / CBRN UNIFORM INGRTD PRTCTN ENSEMBLE FAMILY OF SYSTEMS (UIPE FOS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	22.010	0.000	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	22.010	0.000	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**22.010**	**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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
UIPE FoS Air: Air suits (CBRL)(†)	-	-	0.000	1.576	11,738	18.500	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*18.500*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***18.500***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
UIPE FoS Air: New Equipment Training (NET)	-	-	0.000	-	-	0.030	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
UIPE FoS Air: Training Assets	-	-	0.000	-	-	2.500	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
UIPE FoS Air: Program Management Support	-	-	0.000	-	-	0.860	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Air suits (CBRL) - UIPE FoS Air: Production Lot Testing (PLT)	-	-	0.000	-	-	0.120	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***3.510***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**22.010**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM008 / CBRN UNIFORM INGRTD PRTCTN ENSEMBLE FAMILY OF SYSTEMS (UIPE FOS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

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 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). Starting in FY21, UIPE FOS transitions to individual Items, UIPE FOS AIR Item PHM034, UIPE FOS General Purpose (GP) Item PHM033, and in the out years to UIPE FOS Gloves.

Justification: There is no FY22 PB request.

RDT&E Code B Item: 0603884BP/Proj IP4; 0604384BP/Proj IP5

IP4/UIPE FOS: RDT&E FY2019 and Prior - 3.172Million; FY2020 - 1.997 Million
IP5/UIPE FOS: RDT&E FY2019 and Prior - 7.284Million; FY2020 - 7.924 Million

DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES

UIPE FOS - Air RFP: Jun 2020
UIPE FOS - Air MRA: Aug 2020
UIPE FOS - Air MS C: Sep 2020
UIPE FOS - Air Production Award: Nov 2020

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM008 / CBRN UNIFORM INGRTD PRTCTN ENSEMBLE FAMILY OF SYSTEMS (UIPE FOS)

Cost Elements	OCO	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	Air Force Life Cycle Management Center WNU / WPAFB, OH	C / FFP	TBD	Nov 2020	Mar 2021	11,738	1.574	Y		Jun 2020

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	1.543	23.067	-	23.067
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	1.543	23.067	-	23.067
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**1.543**	**23.067**	**-**	**23.067**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
UIPE FOS GP - GP Suits(†)	-	-	0.000	-	-	0.000	-	-	0.000	0.650	23,953	15.570	-	-	-	0.650	23,953	15.570
UIPE FOS GP - TATPE Ensembles(†)	-	-	0.000	-	-	0.000	11.890	100	1.189	15.038	237	3.564	-	-	-	15.038	237	3.564
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*1.189*	-	-	*19.134*	-	-	-	-	-	*19.134*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***1.189***	**-**	**-**	***19.134***	**-**	**-**	**-**	**-**	**-**	***19.134***
Logistics Cost																		
Recurring Cost																		
UIPE FOS GP - Surveillance and Logistics	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.195	-	-	-	-	-	0.195
UIPE FOS GP - Fielding Support	-	-	0.000	-	-	0.000	-	-	0.075	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.075*	-	-	*0.195*	-	-	-	-	-	*0.195*
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.075***	**-**	**-**	***0.195***	**-**	**-**	**-**	**-**	**-**	***0.195***
Support Cost																		
UIPE FOS GP - Program Management	-	-	0.000	-	-	0.000	-	-	0.000	-	-	2.519	-	-	-	-	-	2.519

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
UIPE FOS GP - Engineering Support	-	-	0.000	-	-	0.000	-	-	0.152	-	-	0.327	-	-	-	-	-	0.327
UIPE FOS GP - Production Lot Testing	-	-	0.000	-	-	0.000	-	-	0.127	-	-	0.000	-	-	-	-	-	0.000
UIPE FOS GP - TATPE Engineering Support	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.892	-	-	-	-	-	0.892
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.279***	**-**	**-**	***3.738***	**-**	**-**	**-**	**-**	**-**	***3.738***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**1.543**	**-**	**-**	**23.067**	**-**	**-**	**-**	**-**	**-**	**23.067**

Remarks:
In FY21, UIPE FoS transitions to UIPE FoS General Purpose (GP), UIPE FoS Air and UIPE FoS Gloves.

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 All Threats. 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: FY22 funds the procurement of 23,953 UIPE FoS GP training garments and continue production of the TATPE toward meeting the FOC of 836 complete ensembles.

RDT&E Code B Item: 0603884BP/Proj IP4; 0604384BP/Proj IP5

IP4/UIPE FOS GP: RDT&E ; FY2021 - 1.989 Million; FY2022 - 3.028 Million
IP5/UIPE FOS GP: RDT&E ; FY2021 - 7.278 Million; FY2022 - 8.167 Million; FY2023 - 9.288 Million; FY2024 - 3.713 Million

DEVELOPMENT/TEST STATUS AND MAJOR MILESTONES

UIPE FOS GP - Milestone B: Mar 2021
UIPE FOS GP - DT/OT (Mar 2021 to Jun 2022)
UIPE FOS GP - Milestone C: Jun 2023

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

UIPE FOS GP - FRP: Nov 2023
UIPE FOS GP - Initial Operational Capability (IOC) (Jul 2025 to Jul 2028)
UIPE FOS GP - Full Operational Capability (FOC): Sep 2030
UIPE FOS GP - TATPE Milestone C: Dec 2021
UIPE FOS GP - TATPE Production Contract Award: Jan 2022
UIPE FOS GP - TATPE IOC: Dec 2022
UIPE FOS GP - TATPE FOC: Jul 2024

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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 GP - GP Suits(†)		2022	TBD / N/A	C / FFP	TBD	Dec 2021 (38)	Jun 2022	23,953	0.650	Y		Dec 2021
UIPE FOS GP - TATPE Ensembles		2021	TBD / N/A	C / FP	TBD	Jan 2022	May 2022	100	11.890	Y		Dec 2020
UIPE FOS GP - TATPE Ensembles		2022	TBD / N/A	TBD	TBD	Nov 2022	Jan 2023	237	15.038	Y		

(†) indicates the presence of a P-21

Footnotes:
(38) Option

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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 (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023											BALANCE
										Calendar Year 2022														Calendar Year 2023								
OCO	MFR #	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	
UIPE FOS GP - GP Suits																														
	1	2022	CBDP	23.953	.000	23.953			A -	-	-	-	-	-	2.200	2.075	1.853	1.853	2.109	2.176	2.075	2.200	1.853	1.853	1.853	1.853					.000
Secondary Distribution			*ARMY*	*1.754*	*.000*	*1.754*			*A -*	-	-	-	-	-	*1.754*	-	-	-	-	-	-	-	-	-	-	-					*.000*
			AF	*6.249*	*.000*	*6.249*			*A -*	-	-	-	-	-	-	-	-	-	*.909*	*1.853*	*2.075*	*1.412*	-	-	-	-					*.000*
			MC	*8.200*	*.000*	*8.200*			*A -*	-	-	-	-	-	-	-	-	-	-	-	-	*.788*	*1.853*	*1.853*	*1.853*	*1.853*					*.000*
			NAVY	*7.750*	*.000*	*7.750*			*A -*	-	-	-	-	-	*.446*	*2.075*	*1.853*	*1.853*	*1.200*	*.323*	-	-	-	-	-	-	-					*.000*
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	TBD - N/A	500	1,284	2,200	0	2	6	8	0	2	6	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).

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM034 / UNIFORM INTEGRATED PROTECTION ENSEMBLE FOS AIR (UIPE FOS AIR)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	4.786	36.818	-	36.818
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	4.786	36.818	-	36.818
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**4.786**	**36.818**	**-**	**36.818**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
UIPE FOS AIR 2PUG - Air Suits(†)	-	-	0.000	-	-	0.000	-	-	0.000	1.000	17,001	17.001	-	-	-	1.000	17,001	17.001
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*17.001*	-	-	-	-	-	*17.001*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***17.001***	**-**	**-**	**-**	**-**	**-**	***17.001***
Package Fielding Cost																		
Recurring Cost																		
New Equipment Training	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.952	-	-	-	-	-	1.952
Production Lot Testing	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.473	-	-	-	-	-	1.473
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.000*	-	-	*3.425*	-	-	-	-	-	*3.425*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***3.425***	**-**	**-**	**-**	**-**	**-**	***3.425***
Logistics Cost																		
Recurring Cost																		
Logistics Support	-	-	0.000	-	-	0.000	-	-	0.778	-	-	3.768	-	-	-	-	-	3.768
SME Support	-	-	0.000	-	-	0.000	-	-	1.972	-	-	3.333	-	-	-	-	-	3.333
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*2.750*	-	-	*7.101*	-	-	-	-	-	*7.101*

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM034 / UNIFORM INTEGRATED PROTECTION ENSEMBLE FOS AIR (UIPE FOS AIR)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Subtotal: Logistics Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***2.750***	**-**	**-**	***7.101***	**-**	**-**	**-**	**-**	**-**	***7.101***
Support Cost																		
Engineering Support	-	-	0.000	-	-	0.000	-	-	1.319	-	-	3.769	-	-	-	-	-	3.769
Program Management	-	-	0.000	-	-	0.000	-	-	0.717	-	-	5.522	-	-	-	-	-	5.522
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***2.036***	**-**	**-**	***9.291***	**-**	**-**	**-**	**-**	**-**	***9.291***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**4.786**	**-**	**-**	**36.818**	**-**	**-**	**-**	**-**	**-**	**36.818**

Remarks:
In FY21, The Uniform Integrated Protection Ensemble (UIPE) Family of Systems (FoS) transitions to UIPE FoS General Purpose (GP), UIPE FoS Air and UIPE FoS Gloves. The four Mission Areas are: Land, Air, Sea, and All Threats. Each of the Mission Areas has unique mission requirements that the UIPE FoS GP, Air and Gloves solutions fulfill.

UIPE FoS Air falls under the UIPE 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. The UIPE FoS Air is composed of two variants. The UIPE FoS Air Chemical, Biological, Radiological Layer (CBRL) to address the specific requirements of the USAF tactical/ejection mission profile and the Two Piece Undergarment (2PUG) to address the remaining USAF and United States Navy / United States Marine Corps platforms.

Justification: FY22 funds will procure 17,001 Air Mission Area Two Piece Undergarment (2PUG) 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 - CBRL Request for Proposal (RFP): Jun 2020
UIPE FOS AIR - Milestone C: Sep 2020
UIPE FOS AIR - CBRL Full Rate Production (FRP) USAF: Sep 2020
UIPE FOS AIR - CBRL Initial Operational Capability (IOC): Mar 2022
UIPE FOS AIR - CBRL Full Operational Capability (FOC): Sep 2029
UIPE FOS AIR - 2PUG Full Rate Production (FRP): Mar 2023
UIPE FOS AIR - 2 PUG Initial Operational Capability (IOC): Sep 2023
UIPE FOS AIR - 2 PUG Full Operational Capability (FOC): Mar 2030

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM034 / UNIFORM INTEGRATED PROTECTION ENSEMBLE FOS AIR (UIPE FOS AIR)

Cost Elements	OCO	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 2PUG - Air Suits(†)		2022	TBD / N/A	C / FFP	TBD	Dec 2021	Nov 2022	17,001	1.000	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM034 / UNIFORM INTEGRATED PROTECTION ENSEMBLE FOS AIR (UIPE FOS AIR)

Cost Elements (Units in Thousands)							Fiscal Year 2022												Fiscal Year 2023											BALANCE
										Calendar Year 2022														Calendar Year 2023								
OCO	MFR #	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	
UIPE FOS AIR 2PUG - Air Suits																														
	1	2022	CBDP	17.001	.000	17.001			A -	-	-	-	-	-	-	-	-	-	-	-	1.415	1.415	1.416	1.416	1.416	1.416	1.417	1.418	1.418	1.418	1.418
Secondary Distribution			*AF*	*11.626*	*.000*	*11.626*			*A -*	-	-	-	-	-	-	-	-	-	-	-	*.968*	*.968*	*.969*	*.969*	*.969*	*.969*	*.969*	*.969*	*.969*	*.969*	*.969*
			MC	*2.622*	*.000*	*2.622*			*A -*	-	-	-	-	-	-	-	-	-	-	-	*.218*	*.218*	*.218*	*.218*	*.218*	*.218*	*.219*	*.219*	*.219*	*.219*	*.219*
			NAVY	*2.753*	*.000*	*2.753*			*A -*	-	-	-	-	-	-	-	-	-	-	-	*.229*	*.229*	*.229*	*.229*	*.229*	*.229*	*.229*	*.230*	*.230*	*.230*	*.230*
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM034 / UNIFORM INTEGRATED PROTECTION ENSEMBLE FOS AIR (UIPE FOS AIR)

Cost Elements (Units in Thousands)							Fiscal Year 2024												Fiscal Year 2025												BALANCE
										Calendar Year 2024														Calendar Year 2025									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	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	
UIPE FOS AIR 2PUG - Air Suits																															
	1	2022	CBDP	17.001	15.583	1.418	1.418																								.000
Secondary Distribution			*AF*	*11.626*	*10.657*	*.969*	*.969*																								*.000*
			MC	*2.622*	*2.403*	*.219*	*.219*																								*.000*
			NAVY	*2.753*	*2.523*	*.230*	*.230*																								*.000*
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

Exhibit P-21, Production Schedule: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** PHM034 / UNIFORM INTEGRATED PROTECTION ENSEMBLE FOS AIR (UIPE FOS AIR)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	TBD - N/A	100	800	1,520	0	2	11	13	0	2	11	13

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).

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

ID Code (A=Service Ready, B=Not Service Ready) : B | **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	7.891	5.965	6.946	-	6.946
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	7.891	5.965	6.946	-	6.946
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**7.891**	**5.965**	**6.946**	**-**	**6.946**
(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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Hardware Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
CBRN Casualty Containment Litter (C3L)(†)	-	-	0.000	-	-	0.000	13.000	10	0.130	-	-	0.000	-	-	-	-	-	0.000
Joint Chemical Agent Detector Solid Liquid Adaptor (JCAD SLA)(†)	-	-	0.000	9.579	261	2.500	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Combined Self-Contained Breathing Apparatus (CSCBA)(†)	-	-	0.000	18.163	43	0.781	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Rapid Austere Environment Sample Preparation Apparatus(†)	-	-	0.000	0.192	1,721	0.330	0.340	1,000	0.340	-	-	0.000	-	-	-	-	-	0.000
Modular PAPR(†)	-	-	0.000	1.837	1,310	2.407	0.412	665	0.274	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*6.018*	-	-	*0.744*	-	-	*0.000*	-	-	-	-	-	*0.000*
Non Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Chemical Biological Ground Mobility Barrier (GMB)(†)	-	-	0.000	122.333	6	0.734	119.800	5	0.599	-	-	0.000	-	-	-	-	-	0.000
Chemical Warfare Agent Device Packaging (CWA DP)(†)	-	-	0.000	-	-	0.000	15.000	10	0.150	-	-	0.000	-	-	-	-	-	0.000
Cascade (Air Jam Compressor with CBRN filter)(†)	-	-	0.000	-	-	0.000	222.000	4	0.888	-	-	0.000	-	-	-	-	-	0.000
Contaminated Waste Mitigation System(†)	-	-	0.000	-	-	0.000	2.000	250	0.500	-	-	0.000	-	-	-	-	-	0.000
Micro PAPR(†)	-	-	0.000	-	-	0.000	-	-	0.000	1.000	2,500	2.500	-	-	-	1.000	2,500	2.500
AP-PPE Suits(†)	-	-	0.000	-	-	0.000	1.687	987	1.665	-	-	0.000	-	-	-	-	-	0.000
CBRN Hydration Resupply System(†)	-	-	0.000	-	-	0.000	-	-	0.000	2.000	200	0.400	-	-	-	2.000	200	0.400
Low Temperature Plasm Mass Spectroscopy(†)	-	-	0.000	-	-	0.000	-	-	0.000	500.000	4	2.000	-	-	-	500.000	4	2.000
Hyper Spectral Imaging System(†)	-	-	0.000	-	-	0.000	-	-	0.000	300.000	4	1.200	-	-	-	300.000	4	1.200
Subtotal: Non Recurring Cost	-	-	*0.000*	-	-	*0.734*	-	-	*3.802*	-	-	*6.100*	-	-	-	-	-	*6.100*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***6.752***	**-**	**-**	***4.546***	**-**	**-**	***6.100***	**-**	**-**	**-**	**-**	**-**	***6.100***
Package Fielding Cost																		
Recurring Cost																		
Transporation Authorization Code (TAC)	-	-	0.000	-	-	0.000	-	-	0.015	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.015*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Package Fielding Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.015***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
AP-PPE Support	-	-	0.000	-	-	0.000	-	-	0.200	-	-	0.000	-	-	-	-	-	0.000
Modular PAPR (MPAPR)	-	-	0.000	-	-	0.000	-	-	0.166	-	-	0.000	-	-	-	-	-	0.000
Technical Support	-	-	0.000	-	-	0.618	-	-	0.600	-	-	0.542	-	-	-	-	-	0.542

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)
Program Management	-	-	0.000	-	-	0.521	-	-	0.438	-	-	0.304	-	-	-	-	-	0.304
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***1.139***	**-**	**-**	***1.404***	**-**	**-**	***0.846***	**-**	**-**	**-**	**-**	**-**	***0.846***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**7.891**	**-**	**-**	**5.965**	**-**	**-**	**6.946**	**-**	**-**	**-**	**-**	**-**	**6.946**

Remarks:
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.

Justification: FY22 funding will procure 2,500 Micro Powered Air Purifying Respirators (PAPR), 200 CBRN Hydration Resupply Systems, 4 Low Temperature Plasma Mass Spectroscopy (LTPMS), and 4 Hyper Spectral Imaging (HSI) systems.

RDT&E Code B Item: 0604384BP/Proj IP5; 0607384BP/Proj IP7

IP5/SPU RCDD: RDT&E ; FY2020 - 3.152 Million; FY2021 - 4.537 Million; FY2022 - 4.581 Million; FY2023 - 6.573 Million; FY2024 - 6.633 Million; FY2025 - 6.696 Million; FY2026 - 6.760 Million
IP7/SPU RCDD: RDT&E ; FY2020 - 2.843 Million; FY2021 - 3.462 Million; FY2022 - 3.397 Million; FY2023 - 1.378 Million; FY2024 - 1.319 Million; FY2025 - 1.257 Million; FY2026 - 1.196 Million

P5: FY20 funding includes Congressional Increase ($3.28 Million)

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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 Casualty Containment Litter (C3L)		2021	ISOVAC Products LLC / Romeoville, IL	SS / FFP	ACC, NJ	Sep 2021	Apr 2022	10	13.000	Y		
Joint Chemical Agent Detector Solid Liquid Adaptor (JCAD SLA)		2020	Smiths Detection / Edgewood, MD	SS / FFP	Aberdeen, MD	Sep 2020	Nov 2020	261	9.579	Y		
Combined Self-Contained Breathing Apparatus (CSCBA)		2020	AVON Protection Systems Inc. / Cadillac, MI	C / FFP	DLA, Philadelphia, PA	Jun 2020 (39)	Aug 2020	43	18.163	Y		
Rapid Austere Environment Sample Preparation Apparatus		2020	Design West Technologies / Tustin, CA	C / FFP	ACC-APG, Natick, MA	May 2020	Jun 2020	1,721	0.192	Y		
Rapid Austere Environment Sample Preparation Apparatus		2021	Design West Technologies / Tustin, CA	C / FFP	ACC-APG, Natick, MA	Jan 2021 (40)	Apr 2021	1,000	0.340	Y		
Modular PAPR		2020	D. Wheatley Enterprises Inc. / Belcamp, MD	SS / FP	ACC-APG, Natick, MA	Sep 2020	Jan 2021	1,310	1.837	Y		
Modular PAPR		2021	D. Wheatley Enterprises Inc. / Belcamp, MD	SS / FP	ACC-APG, Natick, MA	Jun 2021 (41)	Aug 2022	665	1.600	Y		
Chemical Biological Ground Mobility Barrier (GMB)		2020	Integrated Solutions for Systems (IS4S) / Huntsville, AL	SS / FFP	DLA, Philadelphia, PA	Aug 2020	Nov 2020	6	122.333	Y		
Chemical Biological Ground Mobility Barrier (GMB)		2021	Integrated Solutions for Systems (IS4S) / Huntsville, AL	SS / FFP	DLA, Philadelphia, PA	Mar 2021	Jun 2021	5	119.800	Y		
Chemical Warfare Agent Device Packaging (CWA DP)		2021	Saint Gobain / Merrimack, NH	SS / FFP	ACC-APG, Natick, MA	Sep 2021	Mar 2022	10	15.000	Y		
Cascade (Air Jam Compressor with CBRN filter)		2021	Edgewood Chemical Biological Center (ECBC) / Aberdeen Proving Ground, MD	MIPR	ACC-APG, Natick, MA	Jun 2021	Oct 2021	4	250.000	Y		
Contaminated Waste Mitigation System		2021	Southwest Research Institute / San Antonio, TX	C / FPIF	TBD	Sep 2021	Dec 2021	250	2.000	Y		
Micro PAPR		2022	TBD / N/A	C / FFP	ACC-APG, Natick, MA	Apr 2022	Oct 2022	2,500	1.000	Y		
AP-PPE Suits		2021	TBD / N/A	C / FFP	ACC-APG, Natick, MA	Aug 2021	Oct 2021	987	1.687	Y		
CBRN Hydration Resupply System		2022	TBD / N/A	C / FFP	ACC-APG, Natick, MA	Mar 2022	Jun 2022	200	2.000	Y		
Low Temperature Plasm Mass Spectroscopy		2022	TBD / N/A	C / FFP	SOCOM/Tampa, FL	Mar 2022	Jul 2022	4	500.000	Y		
Hyper Spectral Imaging System		2022	TBD / N/A	C / FFP	SOCOM/Tampa, FL	Jan 2022	Mar 2022	4	300.000	Y		

Footnotes:
(39) Delivery Order
(40) (Option)

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)

(41) (Option)

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	0.000	0.880	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	0.000	0.880	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**0.000**	**0.880**	**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	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Hardware Cost																		
Recurring Cost																		
Engine Purchase(†)	-	-	0.000	-	-	0.000	10.000	30	0.300	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*0.000*	-	-	*0.000*	-	-	*0.300*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Hardware Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.300***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
Modification Work Order (MWO)	-	-	0.000	-	-	0.000	-	-	0.275	-	-	0.000	-	-	-	-	-	0.000
Logistics Support	-	-	0.000	-	-	0.000	-	-	0.193	-	-	0.000	-	-	-	-	-	0.000
Program Management	-	-	0.000	-	-	0.000	-	-	0.112	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	***0.580***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**0.880**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:

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 (JSTDS-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 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.

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Justification: There is no FY22 PB request.

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Chemical and Biological Defense Program		Date: May 2021
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	OCO	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		

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** R12301 / CB PROTECTIVE SHELTER (CBPS)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	400.676	8.308	0.000	0.000	-	0.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	400.676	8.308	0.000	0.000	-	0.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**400.676**	**8.308**	**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.

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 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)*
Logistics Cost																		
Recurring Cost																		
Prior/Future combined efforts	-	-	400.676	-	-	0.000	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Care of Supplies in Storage	-	-	0.000	-	-	2.780	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Integrated Logistics Support	-	-	0.000	-	-	0.104	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
New Equipment Training	-	-	0.000	-	-	0.419	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Recurring Cost	-	-	*400.676*	-	-	*3.303*	-	-	*0.000*	-	-	*0.000*	-	-	-	-	-	*0.000*
Subtotal: Logistics Cost	**-**	**-**	***400.676***	**-**	**-**	***3.303***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Support Cost																		
Engineering Support	-	-	0.000	-	-	1.940	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Management Support	-	-	0.000	-	-	3.065	-	-	0.000	-	-	0.000	-	-	-	-	-	0.000
Subtotal: Support Cost	**-**	**-**	***0.000***	**-**	**-**	***5.005***	**-**	**-**	***0.000***	**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***0.000***
Gross/Weapon System Cost	**-**	**-**	**400.676**	**-**	**-**	**8.308**	**-**	**-**	**0.000**	**-**	**-**	**0.000**	**-**	**-**	**-**	**-**	**-**	**0.000**

Remarks:
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

Exhibit P-5, Cost Analysis: PB 2022 Chemical and Biological Defense Program		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 03 / 1	**P-1 Line Item Number / Title:** 8001PH1000 / CB Protection & Hazard Mitigation	**Item Number / Title [DODIC]:** R12301 / CB PROTECTIVE SHELTER (CBPS)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

protective clothing. The system is capable of operating continuously for 72 hours providing a contamination free environmentally controlled working area. The CBPS program will field all previously produced systems prior to formally closing out the program.

Justification: There is no FY22 PB request.

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