



◆ UNCOMPROMISING INTEGRITY ◆ RESPECT FOR ALL ◆ COMMITTED TO EXCELLENCE ◆ ALWAYS READY ◆

JPEO-CBRND

JPEO ADVANCED DEVELOPMENT PROGRAMS AND PRIORITIES

28 July 2022

Darryl J. Colvin

Joint Program Executive Officer for
Chemical, Biological, Radiological and Nuclear Defense

PROGRAMS EXECUTED ON BEHALF OF THE CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM


WHO WE ARE AND WHAT WE DO



JPEO-CBRND

MISSION: Provide integrated layered chemical, biological, radiological, and nuclear defense capabilities to the Joint Force across Combined Joint All-Domain Operations


VISION: A resilient Joint Force enabled to fight and win unencumbered by a chemical, biological, radiological, or nuclear environment; championed by innovative, agile, results-oriented acquisition professionals



COVID CLAIMS OVER 5+ MILLION LIVES



SALISBURY NERVE AGENT POISONING



SYRIA SARIN ATTACK



KIM JONG-NAM ASSASSINATION



CBDP

MISSION: Anticipate future threats and deliver capabilities that enable the Joint Force to fight and win in CB-contested environments

VISION: A Joint Force ready to fight and win in CB-contested environments through a coordinated effort designed to neutralize adversarial CB threats



JPEO-CBRND ORGANIZATION LEADERSHIP



JPEO
Mr. Darryl Colvin
Executive Assistant
Ms. Quneitra "Q" Quintero



Executive Officer
MAJ Eric Hearn



Deputy JPEO
Ms. Nicole Kilgore
Executive Assistant
Ms. Carol Keyes



Chief of Staff
Mr. Gordon Graham
Executive Assistant
Ms. Stefanie Jaron



Assistant JPEO –
Medical
COL Derek Draper

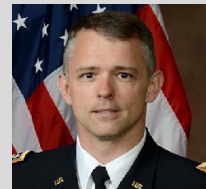


Assistant JPEO
Ms. Emma Wilson

Joint Project Managers (JPM)



JPM CBRN Protection
Ms. Deborah Olson
Executive Assistant
Ms. Brenda Lopez-Price



JPM CBRN Medical
COL Matt Clark
Executive Assistant
Ms. Jenn Scott



JPM CBRN Sensors
COL Robert Carter III
Executive Assistant
Ms. Marjorie (Margie) Giles



JPM CBRN Special
Operations Forces
Mr. Michael Poe
Executive Assistant
Ms. Tiffany Dickinson

Joint Project Leads (JPL)



JPL CBRND Enabling
Biotechnologies
Mr. Bruce Goodwin
Executive Assistant
Ms. Shelley Hilgenberg



JPL CBRN Integration
Mr. Paul Gietka
Executive Assistant
TO BE ANNOUNCED

JPEO-CBRND

Portfolio Overview



92 Acquisition Efforts • FY22 CDBP Budget: \$807.6+M (\$465.3M RDTE; \$342.2M PROC)

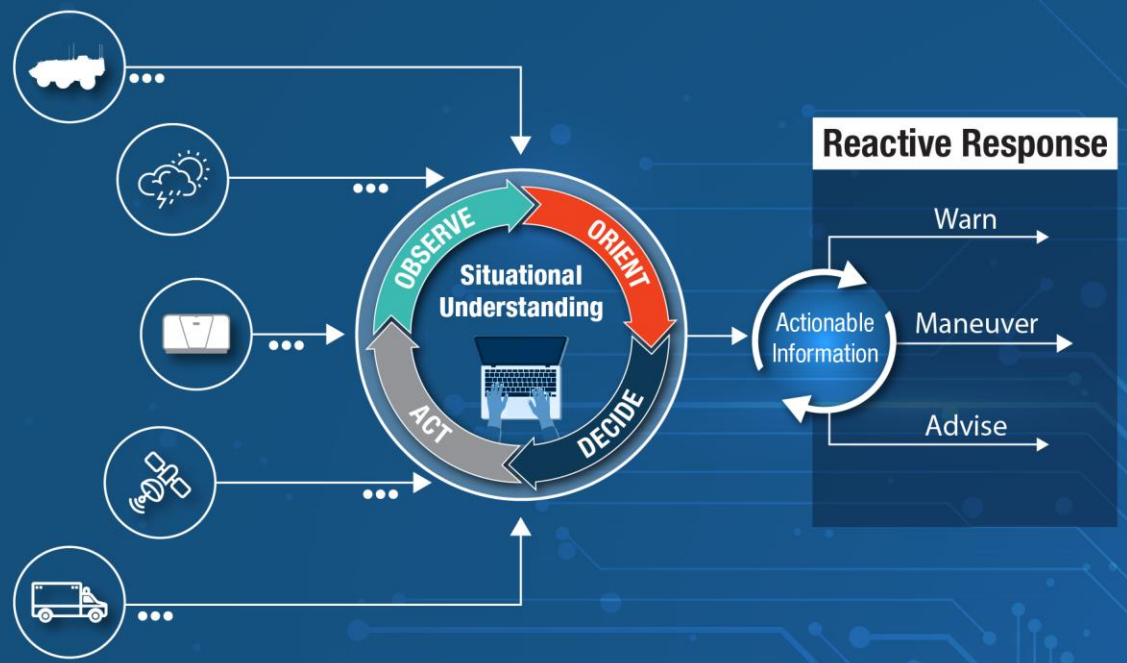
JPL CBRN INTEGRATION 	JPM CBRN PROTECTION			JPL CBRND EB
	▶ COLLECTIVE 	▶ INDIVIDUAL 	▶ DECONTAMINATION 	
	JPM CBRN MEDICAL			
	▶ PROPHYLAXIS 	▶ DIAGNOSTICS 	▶ THERAPEUTICS 	
	JPM CBRN SENSORS			
	▶ POINT/STANDOFF DETECTION 	▶ RECONNAISSANCE 	▶ AUTONOMOUS 	
	JPM CBRN SPECIAL OPERATIONS FORCES			
	▶ PROTECTION 	▶ MEDICAL 	▶ SENSORS 	

OUR INTEGRATION STRATEGY

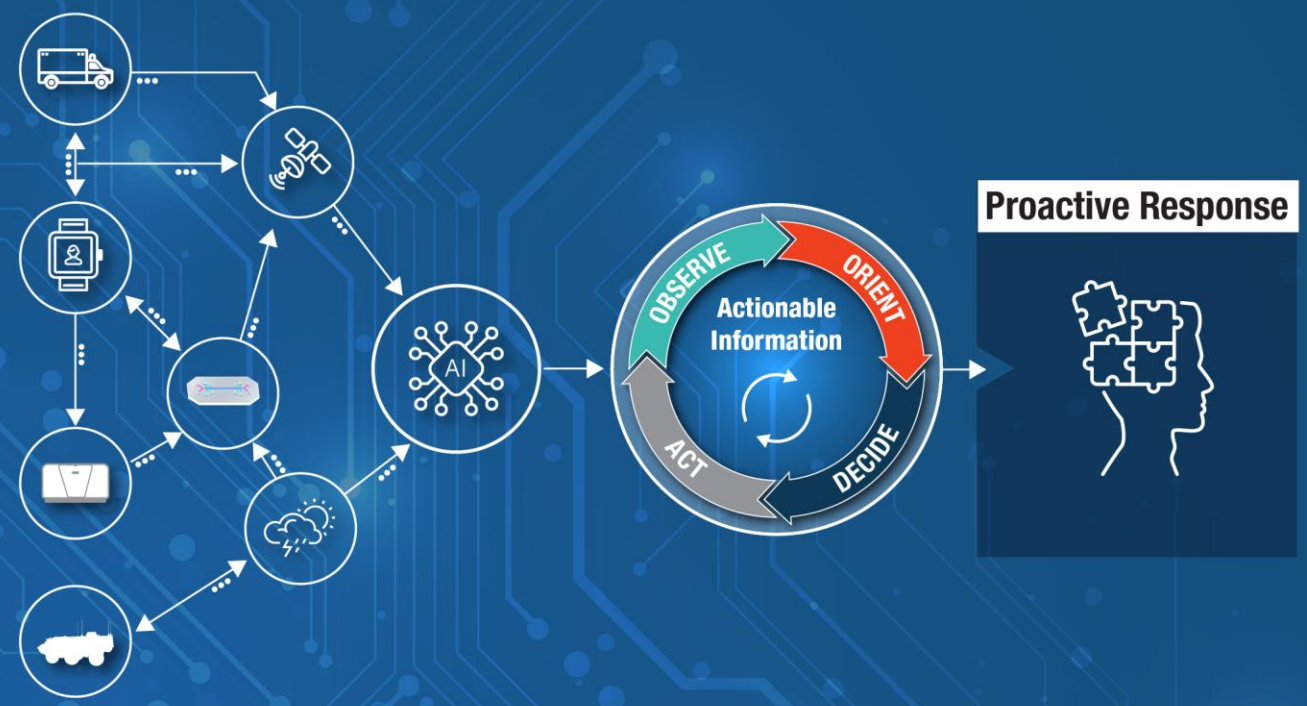
GOAL: Integrated Layered CBRN Defense Across Combined Joint All Domain Operations



CURRENT:



FUTURE:



DATA

INFORMATION

UNDERSTANDING

DECISION MAKING

OPERATIONAL IMPACTS: REAL WORLD EXAMPLE

- REDUCED FORCE READINESS
- MISSION TIME LOST
- SIGNIFICANT RECOVERY COST



CORONAVIRUS IMPACT
SAILOR ABOARD USS ROOSEVELT DIES OF COVID-19

OPERATIONAL IMPACTS: NOTIONAL FUTURE EXAMPLE

- COMPREHENSIVE UNDERSTANDING OF IMPACT TO MISSION SUCCESS
- MINIMAL RESOURCES DIVERTED TO DIAGNOSE, TREAT, DECON/DISINFECT



UNKNOWN VIRUS FOUND ON USS TR; SAILORS TREATED BEFORE GETTING SICK

THE FUTURE MUST BE WELL-CONNECTED



- **What It Means**

- Warfighters of the future need actionable information at the speed of relevance
- Battlespaces of the future need networked CBRN sensors that can seamlessly share information with each other and higher-level systems

- **What It Looks Like**

- “CBRN environments” no longer exist as separate from other battlespaces – CBRN is like any other denied environment
- CBRN capabilities:
 - are so seamlessly integrated that they essentially go unnoticed (e.g., service uniform includes wearables; CBRN alerts/information display on IVAS)
 - function just like any other sensor (e.g., check engine light) and Warfighters are equally familiar with them
 - don’t need to be switched on, unpacked, or plugged in – they’re already in place and working
- CBRN CONOPs only exist for responding to actionable information, not for employing specialized capabilities in specific scenarios

Integrated Layered CBRN Defense Across Combined Joint All Domain Operations



INTEGRATED LAYERED CBRN DEFENSE



SPACE
CYBER
AIR
LAND
MARITIME

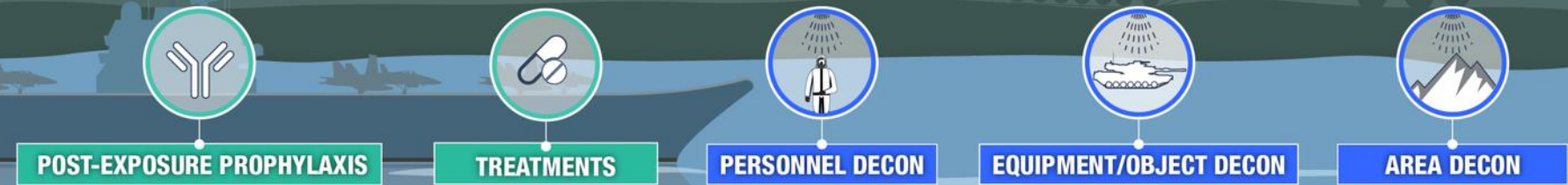
UNDERSTAND



PROTECT



MITIGATE



KEY
■ PROTECTION ■ MEDICAL ■ SENSORS



JPEO-CBRND MODERNIZATION FOCUS AREAS

INTEGRATED EARLY WARNING

- Threat Characterization and Hazard Modeling
- Artificial Intelligence and Machine Learning
- Wearable Sensors
- CBRN Information Nested with Joint All-Domain Command and Control (JADC2)

NEW START PROGRAMS

- CBRN Support to Command & Control (CSC2) (FY24)

UNENCUMBERING THE WARFIGHTER

- Unobtrusive Individual Protection
- Biothreat Containment and Aeromedical Evacuation to Assure Continuity of Operations
- Quick and Effective Decontamination to Contain and Neutralize Spread

NEW START PROGRAMS

- | | |
|--|---|
| <ul style="list-style-type: none"> • MODERNIZE THE MASK - Advanced System for Protection and Integrated Reduction of Encumbrances (ASPIRE) (FY24) - Ground Mask MWO (FY24) | <ul style="list-style-type: none"> • HAZARD MITIGATION - CBRN Covers Coatings and Protective Overlays (C3PO) (FY23) - Next Generation Personnel Decontamination (NGPD) (FY24) - Tactical Contamination Mitigation System (TCMS) (FY23) - Wide Area Decontamination System (WADS) (FY23) |
|--|---|

MODERNIZE BIOLOGICAL DEFENSE

- Flexible, Scalable, and Interoperable Threat Agnostic Detection
- Pre-symptomatic and Rapidly Reconfigurable Diagnostics
- Open-Architecture Diagnostic Assays and Platforms
- AI-based and Biological Models to Assess Efficacy and Safety
- Host-Response Assays

NEW START PROGRAMS

- Countering Emerging Threats - Rapid Acquisition and Investigation of Drugs for Repurposing (CET RAIDR) (FY23)
- Vaccine Acceleration by Modular Progression (VAMP) (FY23)
- Biological Defense Innovation Program (BDIP) (FY24)
- Plague Monoclonal Antibodies (PLG MAB) (FY23)



BROAD SPECTRUM

Effective across multiple threats, offering a frontline defense and buying time to deploy targeted MCMs

Example: A broad-spectrum antiviral can be given after exposure to multiple encephalitic viral diseases to mitigate impact and spread



TARGETED

Understand, mitigate, and protect warfighter against prioritized threats with highly specific tests and MCMs

Example: A Naloxone autoinjector provides immediate protection to warfighters following an exposure to opioids in the field



JPEO CBRND MEDICAL STRATEGY

Protect the warfighter against known and unknown CBRN threats

CBRN Event



Traditional MCM development



Rapid Response



Capability delivered

EXPLOIT RAPID RESPONSE CAPABILITIES

Respond faster to the unknown!

ENHANCED BIODEFENSE



- **Additional \$300+M investment in novel and advanced biodefense capabilities**
- **CBDP aligning biodefense modernization efforts to clear operational capability end states**
 - Focus on technologies that enable agility, responsiveness
 - Address the dynamic and evolving biological threat landscape
 - Prioritize and support Joint All-Domain Operations (JADO)
 - Integrate the Department's biodefense capabilities with interagency investments
- **Posture the Department to detect and identify emerging biological threats quickly, reduce risks, and prepare for, respond to, and recover from any type of biological threat-based event**
 - Goal 1: Enhancing Rapid Response Vaccine Platforms Research and Manufacturing
 - Goal 2: Expediting Surveillance and Pathogen Characterization
 - Goal 3: Expanding Protection Capabilities
 - Goal 4: Evolving Therapeutics Research and Development
 - Goal 5: Enhancing Biodefense Workforce and Biosafety

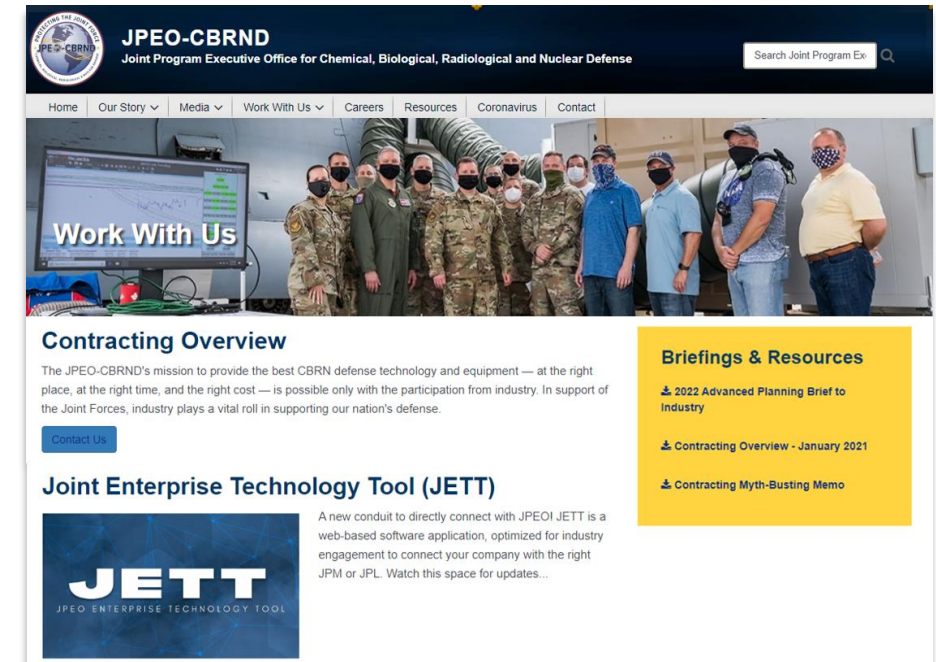
JPEO ENTERPRISE TECHNOLOGY TOOL (JETT)

A new conduit to connect directly with the JPEO!



- » JETT is a web-based software application that facilitates industry engagement
- » Replaces traditional office calls with a more efficient process
- » Connects companies to the “right” point(s) of contact based on answers to a short questionnaire
- » Companies can also upload documents and additional information
- » Submissions will go directly to point(s) of contact for review and follow-up

<https://www.jpeocbrnd.osd.mil/Work-With-Us>



UPCOMING ENGAGEMENTS



- **Later today at NDIA**

- Medical Product Development to Address CBRN and Public Health Threats
 - COL Matt Clark, JPM CBRN Medical
 - Mr. Bruce Goodwin, JPL CBRND Enabling Biotechnologies
- Developing Physical Capabilities to Address CBRN Threats
 - COL Robert Carter, JPM CBRN Sensors
 - Ms. Deborah Olson, JPM CBRN Protection
 - Mr. Michael Poe, JPM CBRN SOF
 - Mr. Paul Gietka, JPL CBRN Integration

- **Events and Conferences**

- CBRNe Summit | October 4, 2022 | Denver, CO
- CBD S&T Conference | December 6-8, 2022 | San Francisco, CA

- **In Case You Missed It**

- BIO-hosted Webinar: *Partnering with the Department of Defense to Protect the Warfighter: Investments in National Health Security*
- <https://www.bio.org/policy/human-health/vaccines-biodefense>

CONTACT

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