



Joint Program Executive Office for Chemical and Biological Defense

Joint Project Manager for Elimination (JPM-E) Overview Briefing

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Partnership



MISSION

Develop, produce, test, integrate, sustain, operate and field the capabilities required to conduct WMD destruction operations worldwide; prevent proliferation of WMD materiel; and provide chemical, biological, radiological and nuclear (CBRN) response support.

VISION

To be the DoD's premier acquisition enterprise delivering agile and tailored capabilities supporting WMD destruction and prevention of proliferation of WMD materiel.





JPM-E Mission is Globally Responsive

CONUS



PANAMA



SYRIA

REPUBLIC OF KOREA

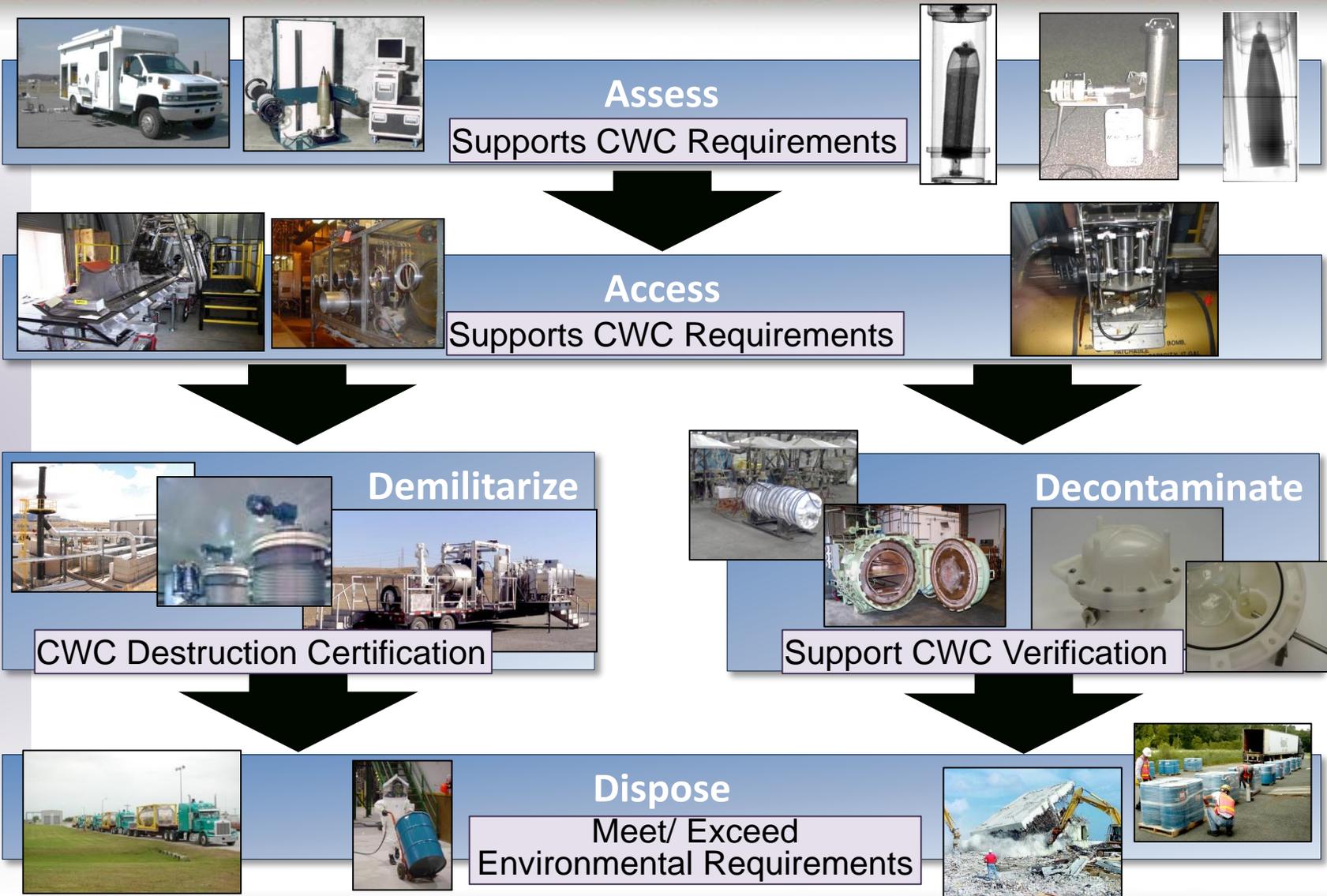


Logos and flags of partner nations: United States, Germany, United Kingdom, Finland, Spain, Denmark, Italy, Turkey, and NATO.



JPM-E Method Schema

Infrastructure and Logistics Support
Permits • Transportation • Supplies • Monitoring
Training • Utilities • Storage • Maintenance





JPM-E Flexible Technology Approach

JPM-E provides:

- Deployable identification, destruction, and disposition capability
 - In theater environment
 - Worldwide deployment
- Degrade Chemical Warfare Agent (CWA)
 - Bulk containers
 - Munitions
- Large amounts of bulk CWA could be processed by the Field Deployable Hydrolysis System (FDHS/FDDS)



JPM-E has developed for RCMD capabilities to non-intrusively assess unknown chemical warfare material worldwide

Digital Radiography and Computed Tomography (DRCT)

- Uses X-ray technology to vertically scan a suspect chemical munition on a rotating platform to produce a digital view of the interior
- Image reveals any liquid fill inside the munition and the status of its fuzing components, if present



Portable Isotopic Neutron Spectroscopy (PINS)

- Identifies compounds inside suspect chemical-filled munitions using a neutron source, gamma ray detector and receiver
- Probes recovered items using neutrons to penetrate the munition walls and interact with the contents, and this interaction produces gamma rays





JPM-E Technology: Access



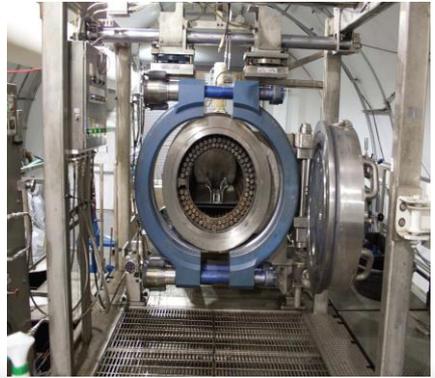
monica™

- Remote case entry system
- Transportable
- Intrusively samples for chemical or biological threats without contaminating the environment
- Samples gas, liquid or powder fills
- Remote operation for drilling for explosively-configured targets



Explosive Destruction System (EDS)

- Transportable
- Destroys recovered chemical munitions and deactivates chemical fill
- Uses cutting charges explosively accessing munitions
- Eliminates explosive capacity before neutralizing the fill





JPM-E Technology: Demilitarization/Destruction



Technologies successfully used to date to destroy CWM

- Thermal: Destroys agent through high-temperature oxidation or reduction
- Neutralization: Chemical reaction to break chemical agent into compounds not usable as chemical weapons
- Detonation: Consumes agent in fireball or breaks chemical bonds through shockwaves

JPM-E Experience: Decontamination



Decontamination Station at the Chemical Demilitarization Training Facility (CDTF), APG-South, MD



A chemical crew decontaminates protective equipment after a Mustard Leaker operation



Demolition



Waste Management



Disposed of more than 675,000 tons of waste



Syrian Chemical Warfare Materiel Destruction Mission



Deployed employees were an ASA (ALT) Forward element that brought technology and expertise to contribute to mission success.

Developed, delivered, fielded and operated the technological solution in response to an international crisis.



JPM-E Current Programs

- Procurement and testing of technology for decontaminating agent contaminated soils and debris
- Procurement and testing of a high throughput explosively configured destruction system for recovered warfare material
- Development and improvement of X-ray and detection systems for recovered warfare material
- Conduct research into comparing and contrasting techniques and equipment for chemical agent analytical systems
- Improvement to the Explosive Destruction System at the Pueblo Chemical Agent Destruction Pilot Plant (increase throughput and operability). EDS will be used to destroy PCAPP's reject munitions



PINS



EDS



JPM-E: Closing Statement

JPM-E is focused on providing equipment and systems to support the warfighter to safely detect, destroy, and dispose of Chemical Warfare Materiel.