

# 20TH CBRNE COMMAND

CHEMICAL, BIOLOGICAL, RADIOLOGICAL, NUCLEAR, EXPLOSIVES



**READY, RELIABLE...GLOBALLY RESPONSIVE!**



# DEFINING “CBRNE”

## CHEMICAL



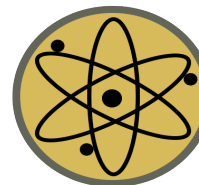
## BIOLOGICAL



## RADIOLOGICAL



## NUCLEAR



## EXPLOSIVES



CBRNE: Chemical, Biological, Radiological, Nuclear, and Explosive threats.

The “E” represents the full range of Explosive threats (low to high yield) and captures the critical tasks our EOD Soldiers perform (unexploded ordnance to improvised explosive device (IED) defeat).



**ANYTIME...ANYWHERE!!**





**CHEMICAL**

## ❖ Warfare agents, toxic industrial chemicals/materials, chemical plants

### UK Man Charged With Attempting to Obtain Chemical Weapon

LONDON — Feb 16, 2015, 3:04 PM ET

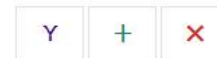
**AP**

British police say a man from northwest England has been charged with trying to obtain a chemical weapon.

Greater Manchester Police says Mohammed Ammer Ali, from Liverpool, was arrested after officers raid properties in the city last week as part of a counter-terrorism operation.

### Terror threats at chemical plants underestimated

By HOPE YEN  
July 30, 2014 5:07 PM



This April 18, 2013 file photo shows an aerial view of the remains of a fertilizer plant and an apartment complex to th...





## BIOLOGICAL



### ❖ Weaponized agents, biotoxins, endemic disease

#### Former College Student Sentenced to One Year in Prison for Unregistered Possession of Ricin

*Toxin Found Last Winter in His Dorm Room*

U.S. Attorney's Office  
November 10, 2014

District of Columbia  
(202) 252-6933

WASHINGTON—Daniel Milzman, 20, was sentenced today to one year and one day in prison on a federal offense stemming from the discovery of a plastic bag of lethal ricin in a dormitory room where he was staying while he was a student at Georgetown University.

The sentencing was announced by U.S. Attorney Ronald C. Machen Jr. and Andrew G. McCabe, Assistant Director in Charge of the FBI's Washington Field Office.

Milzman, of Bethesda, Md., pled guilty in September 2014 in the U.S. District Court for the District of Columbia to a charge of unregistered possession of a biological agent or toxin. He was sentenced by the Honorable Ketanji Brown Jackson. The plea agreement, which was contingent upon the Court's approval, called for a prison sentence falling somewhere within the range of a year and a day to two years of incarceration.

#### 1st Area Medical Laboratory to deploy for Ebola mission

October 9, 2014

By Walter T. Ham IV, 20th CBRNE Command Public Affairs





## RADIOLOGICAL



- ❖ Radiological dispersal devices (dirty bombs), medical and industrial radioactive sources

### Mexico recovers stolen radioactive material

General Sources Wednesday 4th February, 2015

MEXICO CITY (AP) -- Mexican authorities have recovered three stolen pickups carrying radioactive material. The head of the national civil defense office, Luis Felipe Puente, said Tuesday the trucks and their cargo were stolen in Guanajuato state and later recovered in Hidalgo. Puente said the material, Iridium-192 used in industrial radiography, could have been dangerous if the containers were opened. Puente was initially holding the news conference to alert the public to the theft, but before he finished word arrived that the trucks had been located. It was the fourth case of stolen radioactive materials in Mexico in just more than a year. In each case, authorities said the thieves were trying to steal vehicles, not radioactive material....

### Missing radioactive material may pose 'dirty bomb' threat: IAEA

BY FREDRIK DAHL

VIENNA | Fri Mar 21, 2014 12:32pm EDT

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## NUCLEAR



- ❖ Weapons, improvised devices, nuclear infrastructure (power plants, research reactors, reprocessing facilities)

### Nuclear Reactors in U.S. Seen at Risk of Terrorist Attack



### Russia Orders Snap Test of Nuclear Missiles

BY DAMIEN SHARKOV 1/20/15 AT 10:35 AM





## EXPLOSIVES



- ❖ Low to high yield, conventional, and improvised devices

### The Afghanistan War's Most Lasting Legacy: The IED



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### Pentagon warns that US faces IED threat at home

The roadside bombs (improvised explosive devices) so deadly to US troops in Afghanistan are also being deployed against Americans at home, as the Pentagon adapts wartime strategies to help counter the threat.

By Anna Mulrine, Staff writer | JULY 17, 2012







## THE HYBRID CBRNE THREAT

The nexus of ideology, technology, and CBRNE materials (weaponized and industrial/commercial sources) by state and non-state actors is a clear threat. CBRNE hazards can result as well from natural disasters, endemic disease outbreaks, and humanitarian crises.

### JRTC training evolves with hybrid, conventional threats

Story

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Posted: Thursday, October 2, 2014 6:00 pm

by Nancy Jones-Bonbrest, PEO C3T

FORT POLK, La. —When the 3rd Brigade Combat Team “Rakkasans,” 101st Airborne Division, descended from the night sky into the Joint Readiness Training Center, last month, it not only marked the first large-scale joint forced entry Air Assault in more than 11 years, it also signaled a larger shift in how the Army executes training missions.

With the number of U.S. forces on the ground in Afghanistan and Iraq shrinking, training is realigning, from pre-deployment to back-to-basics. In implementing the shift, the Army is leveraging lessons learned from more than a decade at war, as well as planning for future contingencies.

The new hybrid threat training model fuses modern rules of engagement with conventional preparation. Known as decisive action training, it doesn’t shy away from cyber attacks, insurgent threats and chemical warfare, but instead confronts these complexities head-on.

### Army training to focus more on 'hybrid threats'

By Seth Robson

Stars and Stripes

Published: July 26, 2010

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GRAFENWÖHR, Germany — After nearly a decade of fighting insurgents, the Army is shifting its training to focus more on “hybrid threats” — in which an enemy uses a combination of conventional and unconventional warfare.

Since the wars in Iraq and Afghanistan began, Army units have been training for counterinsurgency operations, according to a Joint Multinational Training Command newsletter. But with the U.S. preparing to withdraw its combat troops from Iraq, Army leaders are directing their commanders to conduct “full-spectrum” field exercises, which would include tanks, artillery and the other conventional equipment that has not been used much in the current wars.



M1A1 Abrams tanks from 1-72nd Armor Regiment line up in preparation to assault a town during Warrior Focus, a training exercise at the Combined Arms Collective Training Facility at Rodriguez Live Fire Complex, South Korea. The Army has directed its commanders to start training its soldiers on hybrid threats, which means soldiers will now prepare not





## DEFENSE STRATEGIC GUIDANCE

Over the past year, a number of dangerous trends have worsened, threatening stability across entire regions.

– 2014 Army Strategic Planning Guidance

The U.S. faces a rapidly changing global security environment that is volatile, unstable, and increasingly threatening.

– Force 2025 and Beyond, Oct 2014

The environment the Army will operate in is unknown. The enemy is unknown, the location is unknown, and the coalitions involved are unknown.

– The U.S. Army Operating Concept, 7 Oct 2014

Increased access to expertise, materials, and technologies heightens the risk that these adversaries will seek, acquire, proliferate, and employ WMD. Instability in states pursuing or possessing WMD or related capabilities could lead to dangerous WMD crises.

– DoD Strategy for CWMD, Jun 2014

The U.S. faces a rapidly changing security environment. We are repositioning to focus on the strategic challenges and opportunities that will define our future: new technologies, new centers of power, and a world that is growing more volatile, more unpredictable, and...more threatening to the U.S.

– Quadrennial Defense Review 2014

The review of the strategic threat and guidance demands that our organization is better able to deliver a force that is adaptive, agile, tailorable, and expeditionary.





## **THE 20TH CBRNE COMMAND**

- Department of Defense's only formation with specialized CBRN and EOD (CBRNE) capabilities and expertise to operate effectively across the full spectrum of CBRNE Hazards
- Department of the Army unit comprising 85% of the Active Army's Explosive Ordnance Disposal (EOD) and Chemical, Biological, Radiological, Nuclear (CBRN) Units
- Routinely engages and operates with and in support of Joint, Special Operations, Interagency and International CBRNE organizations and entities
- Maintains a 24-7 focus on countering the range of CBRNE hazards at home and abroad
- Highly-technical, special purpose, expeditionary formation of approximately 5,000 soldiers and 225 civilians posted across 16 States in the Continental US on 19 different installations







## **MISSION AND VISION**

### **MISSION**

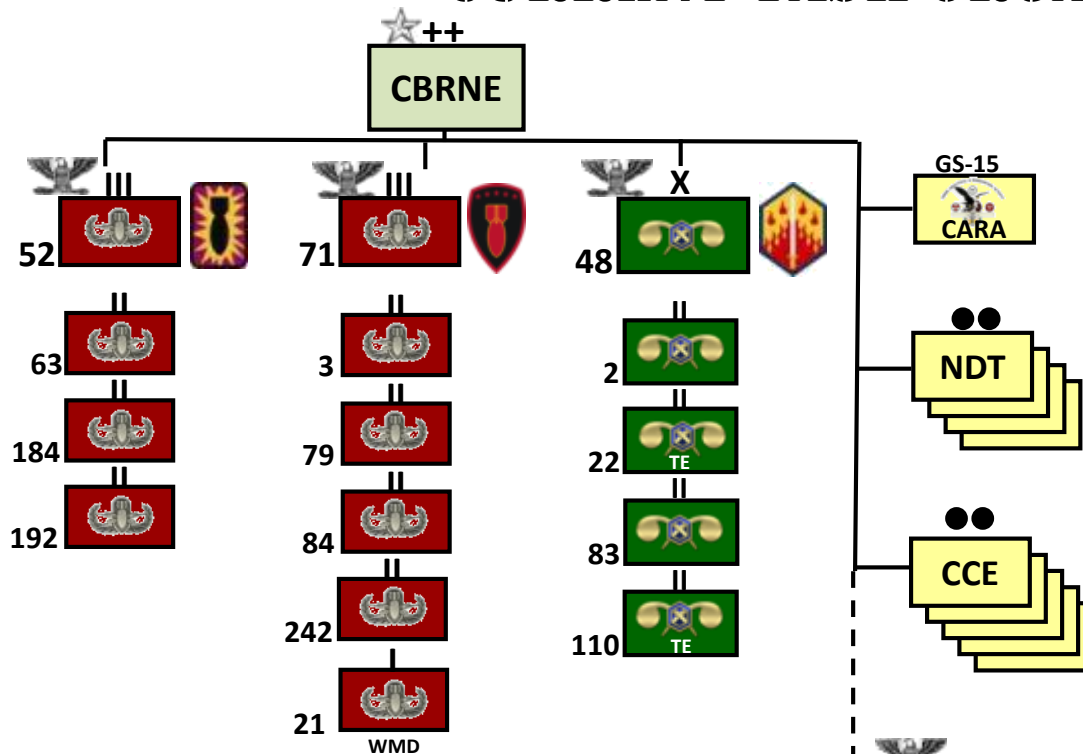
***The 20th CBRNE Command deploys to support unified land operations and performs mission command for Army and/or Joint CBRN and EOD Forces to achieve National CWMD, Homeland Defense, and Defense Support to Civil Authorities (DSCA) objectives, while providing globally responsive CBRN and EOD forces to combatant commands.***

### **VISION**

***Provide the Army with Ready, Reliable and Globally Responsive CBRNE forces capable of leading and executing CBRNE related operations and activities, anytime...anywhere.***



# CURRENT TASK ORGANIZATION



## EOD OPERATIONS

Identify, render safe, exploit and eliminate CBRN & explosive hazards (conventional and improvised)

## CBRN OPERATIONS

Detect, identify, exploit, and decontaminate CBRNE threats and mitigate hazards

## CBRNE ANALYTICAL REMEDIATION

### ACTIVITY

Recover, transport, escort, conduct emergency response and remediate Chemical Warfare material globally with four expeditionary forensic laboratories

## NUCLEAR DISABLEMENT TEAM

Nuclear infrastructure experts in exploiting facilities with nuclear-related material

## CBRNE COORDINATION ELEMENT

CBRN, EOD, and Nuclear Counter proliferation experts equipped with intelligence and communications support focused on CBRNE operational planning at the Corps

## CONSEQUENCE MANAGEMENT UNIT

### (RESERVE)

CBRN technical experts in CBRN threats and countermeasures

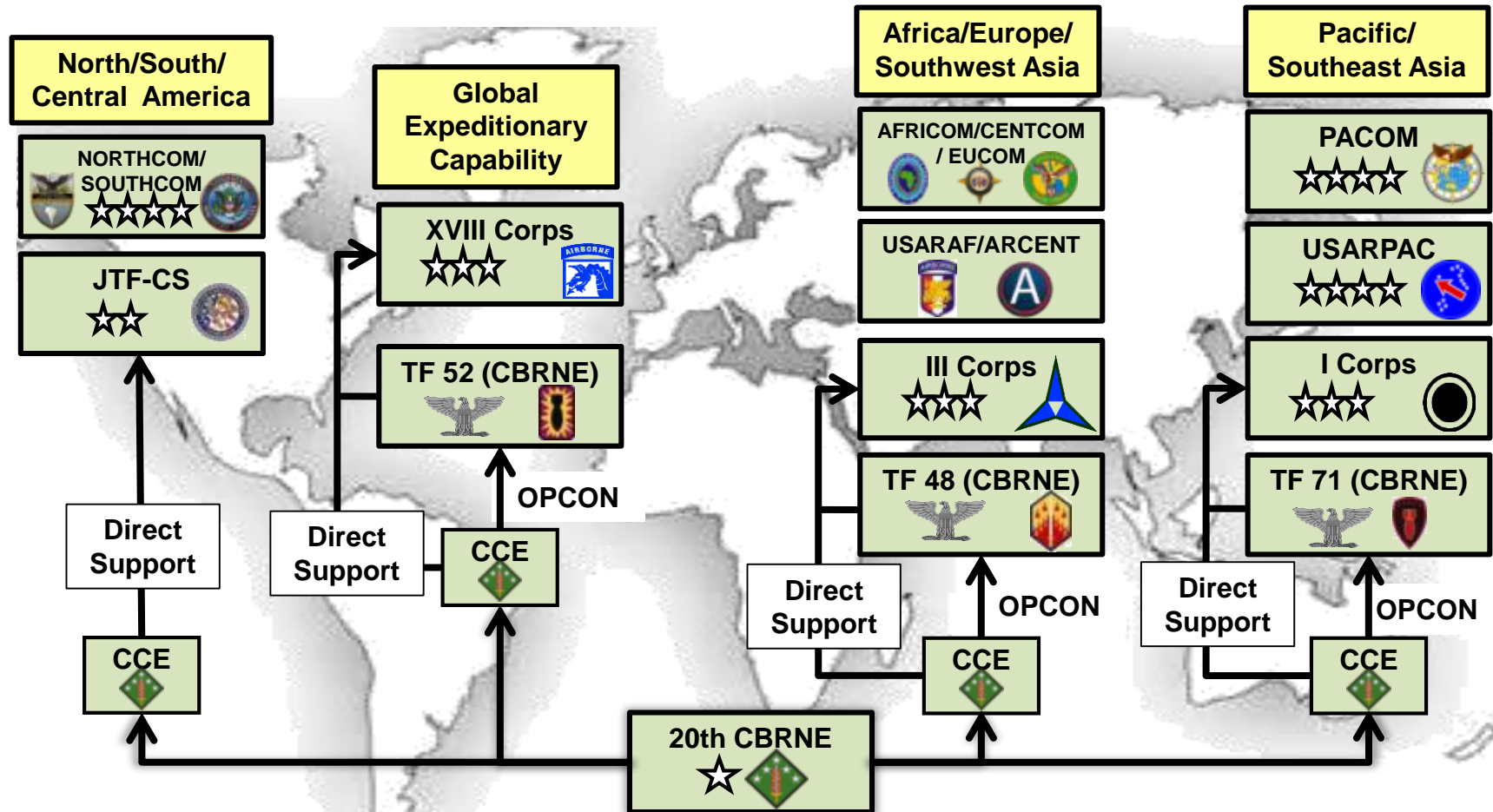
## AREA MEDICAL LABORATORY

Five expeditionary laboratories that identify, interpret, and communicate CBRNE Contaminate Hazards & Risk Mgmt





## 20TH CBRNE COMMAND GLOBAL ALIGNMENT



*Regionally Aligned, Fully Integrated, Multi-Functional CBRNE Brigade Task Forces*

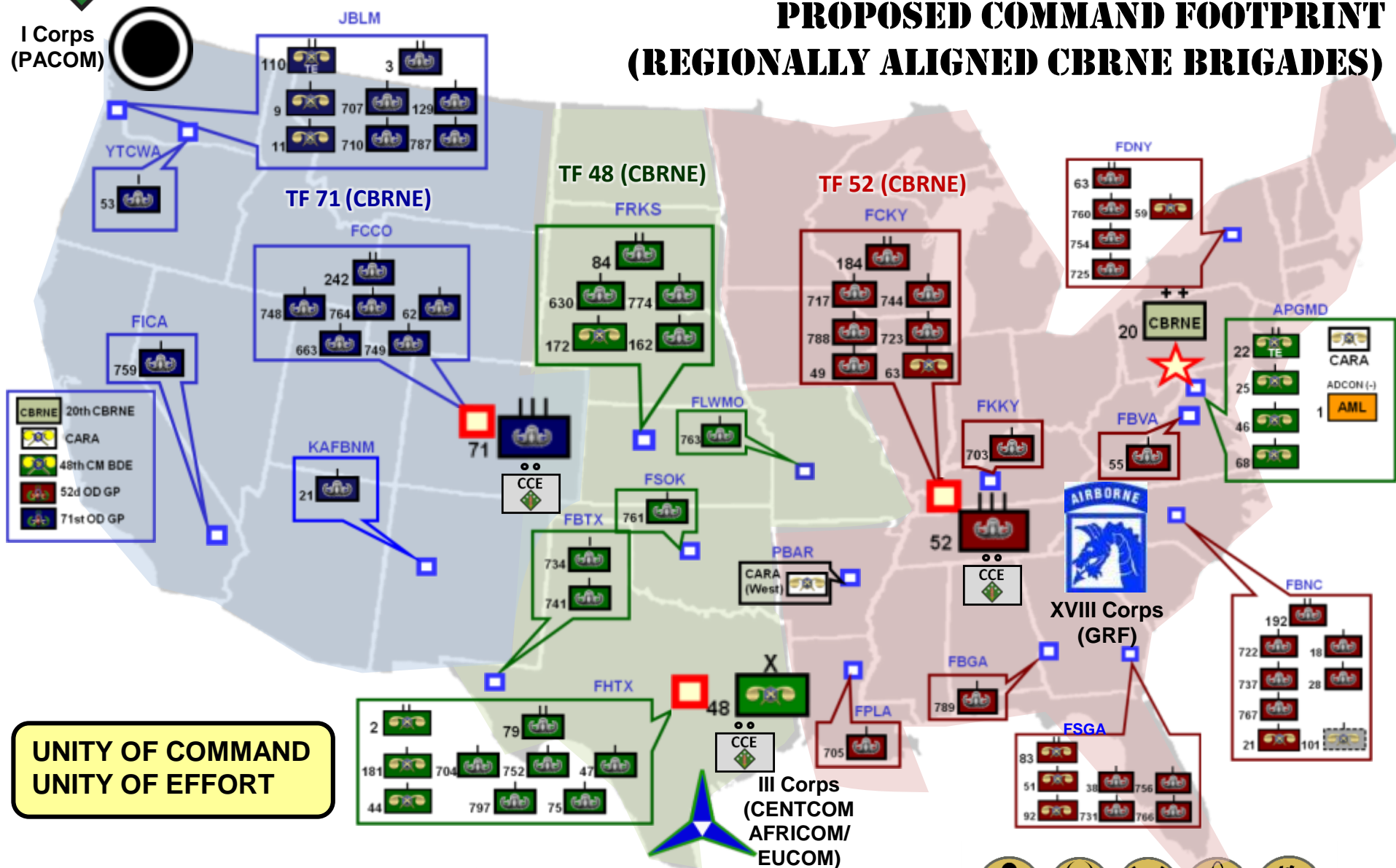


# 20th CBRNE Command

*Ready, Reliable—Globally Responsive*

## PROPOSED COMMAND FOOTPRINT (REGIONALLY ALIGNED CBRNE BRIGADES)

I Corps  
(PACOM)



**ANYTIME...ANYWHERE!!**





# CBRNE OPERATIONAL INTEGRATION AT THE COMBAT TRAINING CENTERS

## Background:

- In Aug 13, due to an emerging CBRNE contingency in CENTCOM, and in preparation for its Global Response Force mission assumption, the 82<sup>nd</sup> Airborne Division modified their Joint Readiness Training Center Rotation 13-09 to include a CBRNE Battalion Task Force with a mission command element.
- FORSCOM subsequently increased the integration of CBRNE into 2014 rotations. 20th provided CBRNE BN TF packages to 7 rotations in 2014 and has 4 rotations scheduled in FY15 & FY16.

### NTC

- Integrated \$158K in equipment to establish realistic CBRNE targets (Jan 14)
- Incorporated National Lab nuclear technologies (centrifuges and enrichment) (Jun 14)
- Delivered ECBC training aids including 6 mobile CB targets (Aug 14)
- Building CBRNE Underground Facilities (Jun 15)

### JRTC

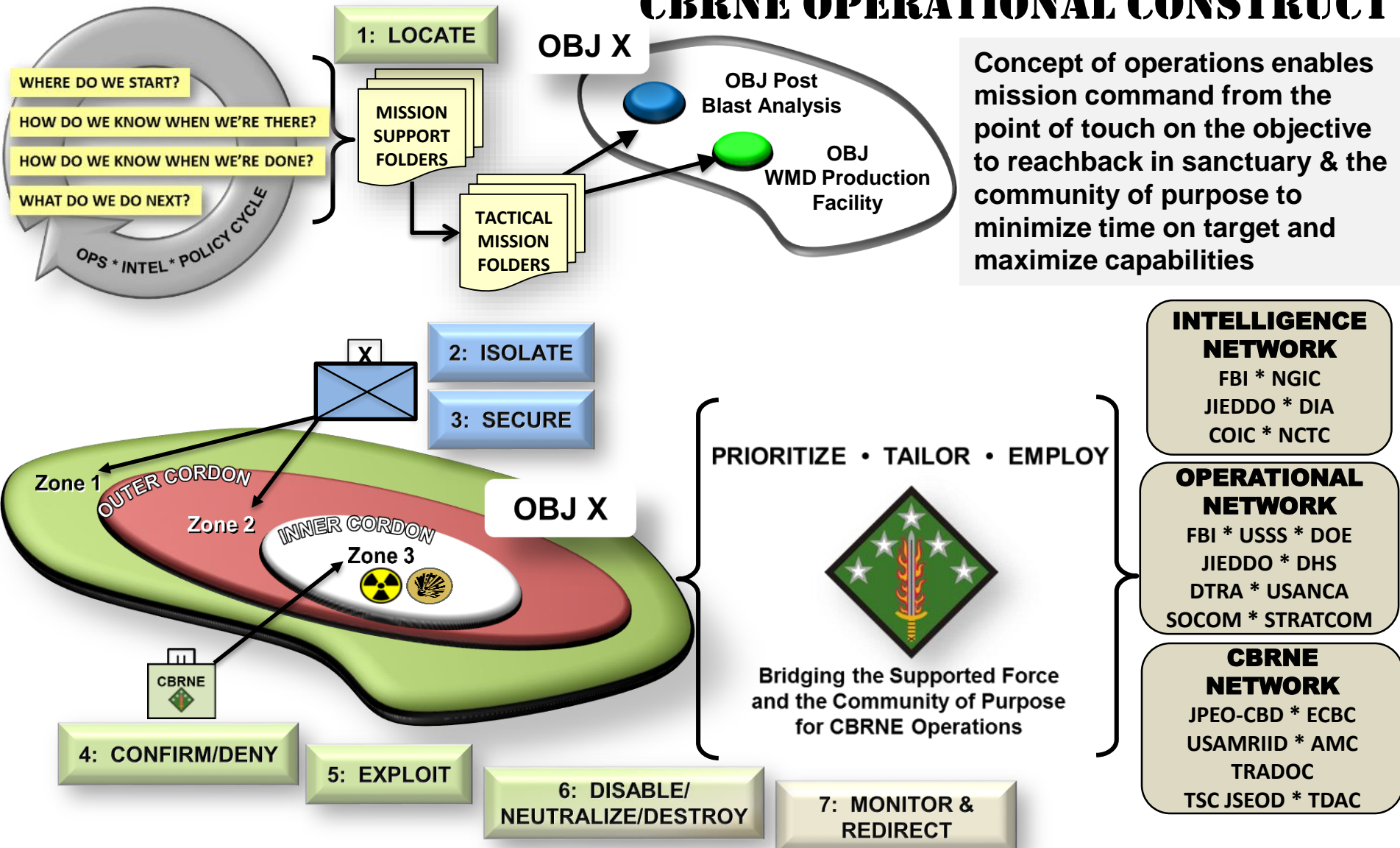
- Integrated \$180K in equipment to establish realistic CBRNE targets (Mar 14)
- Delivered ECBC training aids including 6 mobile CB targets (Aug 14)
- Constructed a nuclear production/reprocessing facility (Sep 14)
- Building CBRNE Underground Facilities (Jan 15)

## To Scale Training Venues

**ANYTIME...ANYWHERE!!**



# CBRNE OPERATIONAL CONSTRUCT



**ANYTIME...ANYWHERE!!**



## COMBAT TRAINING CENTERS - EMERGING GAPS

- ✓ Communications - ability to communicate rapidly with supported forces, within and across our formations, enabled with reachback to communities of purpose
- ✓ Protection/Sustainability – protective ensemble that reduces our reliance on consumables, while providing greater protection and reduced physical stress to our forces, that is suitable for sustained expeditionary operations
- ✓ Mobility – lightweight, expeditionary equipment and forces who can rapidly deploy to the objective while maintaining tempo with their supported forces
- ✓ Detection/Situational Awareness – widely distributed sensor arrays that enable remote monitoring and detection, situational awareness, and a common operational picture

Pursuing materiel solutions with JPEO-CBD, PEO-C3T, DTRA, and TRADOC through a proposed Advanced Technology Demonstration





## WHERE CAN YOU HELP?

### ✓ Information Systems:

- ☐ How can we capitalize on the trajectory of technology to enable a rapidity of situational understanding of CBRNE hazards up, down and across the communities of interest?
- ☐ How do we achieve a confederation of sensors, including the Soldier's handheld (Point of Touch) and remote detectors, all linked to a real time, relevant situational understanding suite?
- ☐ How do we link the Soldier at "*The Point of Touch*" to a confederated network that links the whole of the community of interest to rapidly confirm the hazard, or provide innovative solutions to overcome "Apollo 13" scenarios, when encountered?
- ☐ How can we create detection systems that result in reduced Soldier exposure to CBRNE hazards while maximizing the effects of our personnel's reduced time on target?

✓ **Sustainability** – how can we reduce the logistical burden of consumables and expendables required of CBRNE Operations?

✓ **Decontamination** – how can we reduce our dependency on bulk liquids while moving toward a more precision-based approach to decontamination?

✓ **Protective Ensemble** – how can we improve our Soldier's ability to operate with increased effectiveness in CBRNE environments where it's difficult to hear, breath, see, and communicate? Can we create a tailorable/modular protective ensemble to meet the anticipated conditions of the operational environment vs our current "one size fits all" solution?





## CONCLUSION

- **The 20th CBRNE Command has unique CBRNE capabilities that have been tested and proven in combat**
- **As the Army's only formation with specialized CBRNE capabilities, the 20th CBRNE Command is focused preparing to operate effectively across the spectrum of CBRNE threats and hazards**
- **The uncertainty of the rapidly changing strategic environment with a host of potential adversaries having increasing access to CBRNE capabilities and technology mandates an integrated, tailorable and scalable CBRNE capability within the 20th CBRNE Command**
- **The 20th CBRNE Command seeks to maintain our relationships with industry and academia to ensure our forces maintain state-of-the-art capabilities**

*Ready, Reliable and Globally Responsive CBRNE forces capable of leading and executing CBRNE related operations and activities, anytime...anywhere.*





# QUESTIONS?



**Contact 20th CBRNE Command (410) 436-0330**



***ANYTIME...ANYWHERE!!***

