Department of Defense

Response Capabilities for a

Weapon of Mass Destruction

July 99

The information contained in this document was prepared by United States Army Forces Command and has been coordinated with all of the listed organizations. If you know of any changes or additions that should be listed, contact the FORSCOM Domestic Plans Branch at DSN 367-XXXX , Commercial (404) 464- XXXX, or FAX DSN XXX-7427.

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52d Ordnance Group (EOD)

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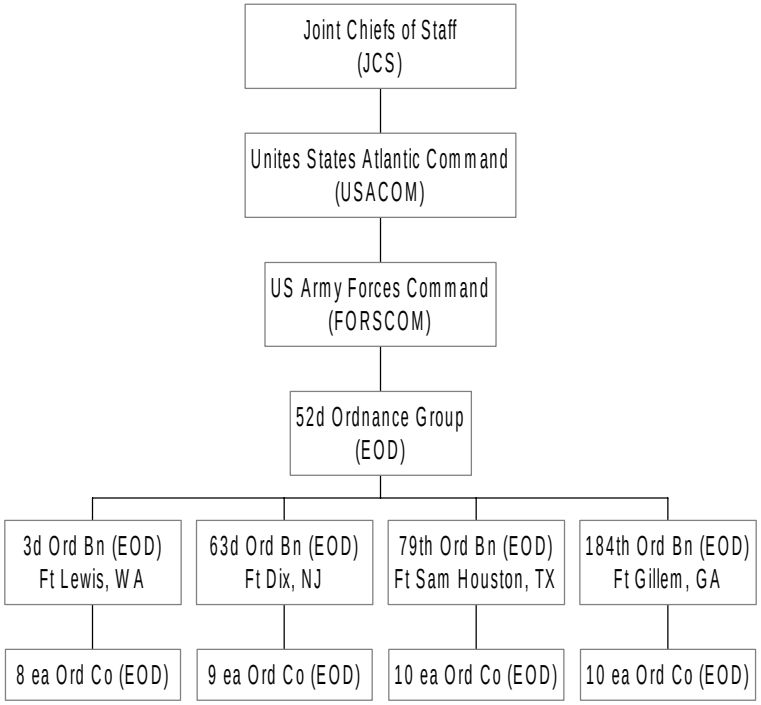

Web Site: www.forscom.army.mil/52d_ORD_GP.htm

Mission: Provide military explosive ordnance disposal (EOD) / bomb squad units to defeat or mitigate the hazards from conventional, nuclear, or chemical military munitions and weapons of mass destruction (WMD) throughout CONUS as requested by local, state, federal law enforcement or military authorities.

Capability: The capabilities of the 52nd EOD are multifaceted to include:

1. Identification and render safe of foreign and US military munitions (chemical, conventional and nuclear).
2. Disposal of munitions encountered; Response and render safe of terrorist improvised explosive devices (IED) (i.e. pipe bombs, booby traps).
3. Response for WMD incidents.
4. Conduct training in military munitions and IED to law enforcement agencies.
5. Provide continuous support to the US Secret Service and State Department for VIP Protection details.

Each unit has a variety of bomb disposal tools and detailed classified procedures for handling US, foreign, and terrorist munitions. Their procedures are often classified and not releasable outside of the DoD EOD channels. Included in their equipment are robots for remote operations, special cannons and explosive shape charges, and a variety of EOD tool sets for specific munitions.

Existing agreements with the Army Technical Escort Unit (TEU) outline inter-operational support between the 52d Group and TEU for missions involving non-stockpile US chemical

munitions and for terrorist WMD devices with chemical or biological fillers. Agreements between the DoD and DOE outline roles for the 52d Group for responding to a US or foreign nuclear military weapon incident or to a terrorist WMD with nuclear or radiological components.

The 52nd EOD has four Ordnance Battalions with thirty-seven companies stationed throughout CONUS. Often there are between 2-5 companies deployed OCONUS at any one time; the CONUS local areas affected are then supported by the next nearest EOD unit until the end of the deployment. Three additional EOD companies will be activated to provide mobilization support throughout CONUS beginning 16 Oct 99.

Components: As of January, 1999 three EOD companies located at San Diego, San Antonio, and Andrews Air Force Base, Washington, DC may respond to a WMD incident. These designated companies receive specific training on chemical and nuclear WMD. They possess unique counter booby trap equipment and are trained to operate specialized equipment (provided by DOE) used for diagnostics and for render safe/mitigate a WMD nuclear initiation. Similar equipment is also used with TEU for chemical/biological WMD scenarios. The WMD Companies provides the full spectrum of conventional EOD support to law enforcement and military commanders in their geographic area of responsibility in addition to the WMD response mission. The first EOD responder to a WMD incident could be from any of the EOD units based on location; based on assessment of the EOD team of the situation they can contact their battalion for reinforcement with more EOD assets including a WMD unit for the level of the emergency.

Each EOD WMD Company consists of 22 soldiers that are tasked organized for each mission. These companies consistently conduct training exercises with the FBI, DOE and JSOTF. They have deployed on operational missions involving suspect WMD items in the past, for operations expected to involve sophisticated booby trap devices and for stand-by support to high visibility events including the 1996 Summer Olympics and the Presidential Inauguration.

Deployment:

Equipment: Each EOD WMD company has equipment that weighs approximately 1800 lbs. Boxed and pre-staged that would fit on one 463L pallet.

Personnel: 2 EOD soldier team up to the full 22 soldier Company.

Time requirements: All EOD response teams can be dispatched within ½ hour (duty hours) and 1 hour (non-duty hours). The designated WMD Companies is capable of dispatching a full unit capability within 4 hours for WMD operations (depart home station within 4 hours).

Location: Total of 37 Ordnance Companies (EOD) stationed throughout CONUS. The three designated WMD Companies is located at:

749th EOD Co. is at Andrew AFB, MD
797th EOD Co. is at Ft Sam Houston, TX
710th EOD Co. is at the Naval Submarine Base, San Diego, CA

Support Requirements:

Aircraft: Any commercial or military aircraft.

Lodging: Required. EOD has basic tentage but normally deploys within CONUS with no field capabilities.

Messing: Required. EOD has no field capabilities.

Communications: Supporting activity must provide external communications. EOD internal team communications are capable of linking with the SINGARS Radio System.

Transportation: Once on site EOD assets require U-Haul/Ryder Truck or equivalent to transport equipment and two 15 passenger vans. EOD WMD Companies can deploy with organic transportation assets if required (up to 8 x HMMWVs, 2 x M109 2 ½ ton trucks, and associated trailers).

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U. S. Navy
Explosive Ordnance Disposal Group Two

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Mission: To eliminate hazards from ordnance which jeopardize operations conducted in support of the national military strategy by providing specially trained, combat ready, highly mobile forces. Navy EOD Forces are employed in a variety of operations, across a wide spectrum of warfare areas, in the execution of this mission.

Capability: Navy EOD detachments, under the operational control of their perspective Mobile Units, are structured for a relatively small footprint and rapid response. EOD detachments can be split into smaller units to respond to multiple EOD incidents/tasks, which are within the capabilities of a smaller force. Each detachment is trained in a variety of mobility and survivability skills enabling them to operate in a variety of environments both afloat and ashore.

EOD detachments are capable of responding to underwater and surface ordnance, nuclear, biological, chemical and Improvised Explosive Device (IED) threats. They can provide diving and demolition support, intelligence collection, aircraft and ordnance recovery, range and underwater clearance, U.S. Secret Service support, riverine operations, CNO-project support, Special Warfare (SPECWAR) operational support and other special operations. Selected detachments may be delivered by parachute to respond to EOD incidents in a mid-ocean environment or at remote land areas. All detachments are trained in basic non-conventional insertion and extraction techniques and in low-influence diving operations, which is an essential element in supporting a Mine Countermeasures capability. EOD detachments can be assigned to perform contingency operations in a Low Intensity Conflict (LIC) environment such as Visit Board Search and Seizure (VBSS) or insurgency/counter-insurgency action in support of special operations.

Select detachments are specially outfitted and trained to support WMD missions. Navy EOD detachments maintain the capability to neutralize the multi-national terrorist capability in conventional explosives and IEDs. EOD detachments are qualified to render safe all known terrorist devices and are trained in new technologies that add additional margins of safety when coping with unknown and/or sophisticated IEDs. Under DOD Directive 3150.5, Navy EOD is responsible for providing underwater search and recovery of Improvised Nuclear Devices (INDs). In conjunction with a specially equipped Defense Technical Response Group (DTRG), Navy detachments assist in the neutralization of WMD and related sophisticated electronic devices.

Components: EOD Group TWO exercises operational and administrative control over LANTFLT EOD Mobile Units, Mobile Diving and Salvage Unit, EOD Training and Evaluation Unit and Naval Reserve EOD Mobile Units.

EOD Mobile Units exercise operational and administrative control over assigned EOD detachments. The basic operating element in Navy EOD is the detachment. Navy EOD Mobile, EOD Mine Counter Measures (MCM), and EOD Shore detachments are the primary responders for WMD incidents. These detachments possess the specialized training and equipment to search, recover, and neutralize WMD in all weather conditions and Chemical, Biological, Radiological (CBR) environments on land and underwater.

Manning:	Officers	Enlisted
Mobile Det	1	7
MCM Det	1	7
Shore Det	1	5

Deployment:

Equipment: Varies with detachment size and mission requirements. Ranges from man portable, to 463L pallet with vehicle, boat and trailer.

Personnel: 2 man EOD element up to full detachment.

Time requirements: Mission and detachment dependent. From 30 min. (duty hours) to 4 hours (non-duty hours).

Location: Total of 16 Mobile, 8 MCM, and 12 Shore detachments are located throughout LANTFLT/NAVEUR AORs.

Airlift: Any commercial or military aircraft.

Lodging: Required.

Messing: Required.

Communications: Supporting activity must provide external communications.

Transportation: EOD dets can deploy with organic transportation assets if required and aircraft lift is available.

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U.S. Army Technical Escort Unit (TEU), SBCCOM

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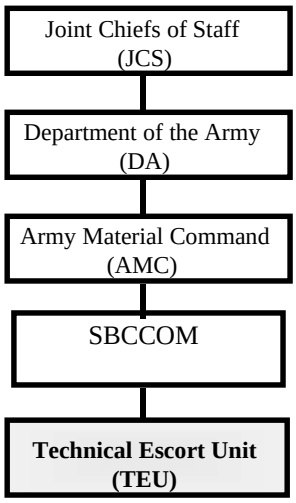
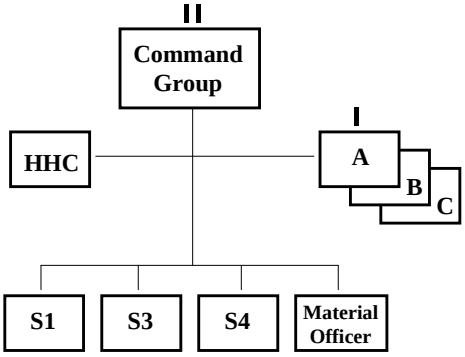


Mission: Provide worldwide, no-notice capability to conduct field sampling, identification and verification; monitoring, recovery, decontamination, escort and mitigation of hazards associated with chemical and biological materials in compliance with international, federal, state, and local laws.

Capability: The capabilities of the TEU are multifaceted to include: Technical escort of C/B agents material, and munitions; Render safe and/or dispose of weaponized C/B munitions and material; Conduct technical intelligence exploitation of foreign C/B munitions and material; Provide C/B response team to government agencies as required to support National/International Counterproliferation Policy; and Operate in Hazardous Environments.



Components: TEU's basic operational element is the Chemical-Biological Response Team (CBRT). The unit can deploy CBRTs from Aberdeen Proving Ground, MD, Dugway Proving Ground, UT and Pine Bluff Arsenal, AR. In general, each CBRT is comprised of 12 chemical/biological and explosives ordnance disposal specialists, but the team composition can be tailored to the mission. The CBRT can be deployed to suspect or actual incidents involving chemical/biological agents, munitions, and other hazardous materials. The TEU's CBRTs maintains a rapid response capability in detection, decontamination (neutralization), containment (packaging), dismantlement (render safe), and disposal (transport and escort only) of weapons of mass destruction containing chemical/biological agents or related materials.

Chemical Biological Response Team (CBRT)

- **2 LNO's (02-E7)**
- **1 Team Chief (O3)**
- **1 Team NCOIC (E8)**
- **4 EOD Ops NCOs (E5-E7)**
- **4 Chem Ops NCOs (E5-E7)**

The CBRT also maintains an information "reach-back" capability to TEU's Emergency Operations Center for communications with chemical/biological agent, explosive ordnance, and disaster response subject matter experts.

The TEU's CBRT teams maintain specialized equipment to accomplish their assigned worldwide mission.

Deployment:

Equipment: One CBRT: 2 Vehicles (M1008s or Suburban)
2 463L pallets or ISU containers

Personnel: One CBRT: 12 personnel

Time requirements: The TEU maintains one CBRT on a 24-hour on-call status and can be ready to deploy ("wheels up") within four-hours.

Location:
Aberdeen Proving Ground, MD
Dugway Proving Ground, UT
Pine Bluff Arsenal, AR

Support Requirements:

Aircraft: One C-141 required for deployment to incident site. Aberdeen Proving Ground team can deploy from Aberdeen, Andrews AFB or Dover AFB. Dugway Proving Ground team can deploy from Dugway or Hill AFB. The Pine Bluff Arsenal team can deploy from Little Rock, AR.

Lodging: Required. CBRT has no field capabilities.

Messing: Required. CBRT has no field capabilities

CBRT Detection Equipment Table (*For one CBRT*)

Equipment Type	Quantity Available for Mission	Capability	Remarks
ABC-M8 VGH, Chemical Agent Detector Paper	5 booklet	Nerve agents (V series and G series) and blister agent (H series).	ABC-M8 VGH are dye impregnated papers that change color when exposed to liquid chemical agent. It only provides a qualitative measurement of the nerve and blister agents presence. M8 paper cannot detect chemical agents in vapor form. M8 paper is an item of military detection equipment. It is primarily used in a chemical contaminated situation on the battlefield to identify unknown liquid droplets.
ABC-M18A2 Chemical Agent Detector	1 kit	Nerve agents (V and G series), blister agents (H series), lewisite (L), phosgene (CG), phosgene oxime (CX), cyanogen chloride (CK), Hydrogen Cyanide (AC)	The M18A2 kit, which contains M8 paper, can detect vapors, aerosols and liquids (M8 paper detects liquid nerve and blister agents). The kit sensitivity levels are below the Immediately Dangerous to Life and Health (IDLH) concentrations for nerve agents (G series) only and hydrogen cyanide. The M18A2 is an item of military detection equipment. It is primarily used in chemical surety facilities.
M90 Chemical Warfare Agent Detector System	2 each	Nerve Agents (V series and G series), Blister Agents (H series and Lewisite) and Choking Agents.	The M90 detects chemical agents in vapor form. The system also includes M90 - PA personal alarm units and M90 -TM transmitters to provide additional warning utilizing the M90 detector. The signal transmission range is 2 to 3 miles. The M90 is an item of military detection equipment.
Draeger Tubes	1 box each/ 2 box for Phosgene	Formaldehyde, Hydrogen Fluoride, Carbon Tetrachloride, Hydrochloric Acid, Cyanogen Chloride, Hydrocyanic Acid, Chlorine and Phosgene.	The Draeger tubes sensitivity levels are below the IDLH concentrations for these industrial chemicals. The Draeger system detects industrial chemicals in vapor form. Additional Draeger tubes are commercially available to detect nerve and blister agents; however, the U.S. government has not tested and certified them for these chemical warfare agents. The manufacturer claims that their Draeger tubes for nerve agents (G series only) will detect below the IDLH levels. All Draeger tubes are commercially available.

CBRT Detection Equipment Table (*For one CBRT*)

Equipment Type	Quantity Available for Mission	Capability	Remarks
AIMS 3300	1 each	- Multigas Explosive Lowest Explosive Limit (LEL) sensor [acetone, acetylene, benzene, butane, butylene, diethylamine, dimethylamine, ethane, ethanol, ethyl acetate, ethyl ether, ethylene, gasoline, general sensing, hexane, hydrogen, JP4, methane, methanol, M.E.K., octane, pentane, petroleum naptha, propane, propanol, propylene, toluene, xylene] - Ammonia sensor - Oxygen sensor - Carbon Monoxide sensor - Hydrogen Sulphide sensor - Sulphur Dioxide sensor - Nitric Oxide sensor - Chlorine sensor - Hydrogen Cyanide sensor - Hydrogen Chloride sensor - Hydrogen sensor	The principal purpose of the AIM detector is to warn the user of potential hazards in ambient atmospheres that may be explosive, toxic, or low in oxygen. This detector does not detect nerve and blister chemical warfare agents. Commercially available.
Chemical Agent Monitor (CAM)	2 each	Nerve agents (G series and V series) and H series blister agents.	The CAM is a hand held instrument capable of detecting, identifying, and providing relative vapor concentration levels for chemical agents. The CAM sensitivity levels are below the IDLH concentrations for nerve agents (G series only) and above the IDLH for V series nerve and blister agents. The CAM is an item of military detection equipment.

CBRT Detection Equipment Table (*For one CBRT*)

Equipment Type	Quantity Available for Mission	Capability	Remarks
Monitox	2 each	Phosgene	The CBRT use it only for phosgene detection. The Monitox detects below the IDLH concentration level for phosgene. This instrument has the capability to detect other industrial chemicals. Commercially available.
Bios AirPro 6000 (Bios Pumps)	5 each		Air sampling pump. Commercially available.

CBRT Decontamination Equipment Table (*For one CBRT*)

Equipment Type	Quantity Available for Mission	Remarks
Collapsible Pool	2 each	Decontamination line equipment. Commercially available.
Decontamination Tent, Camouflage	1 each	Decontamination line equipment. Commercially available.
Tent Pegs	10 each	Decontamination line equipment. Commercially available.
Interspiro Hose	1 each	Decontamination line equipment. Commercially available.
4 hp air pump with hose	1 each	Decontamination line equipment. Commercially available.
Interspiro Bottle	1 each	Decontamination line equipment. Commercially available.

CBRT Decontamination Equipment Table (*For one CBRT*)

Equipment Type	Quantity Available for Mission	Remarks
Bleach	6 gallons	Decontamination solution. Commercially available.
Collapsible Bucket	3 each	Decontamination line equipment. Commercially available.
18 gallons bucket	2 each	Decontamination line equipment. Commercially available.
Sponges	8 each	Decontamination line equipment. Commercially available.
6 mil bags	5 each	Decontamination line equipment. Commercially available.
Mask Sanitizer	10 each	Decontamination line equipment. Commercially available.
Hand Brushes	2 each	Decontamination line equipment. Commercially available.
Long handled brushes	4 each	Decontamination line equipment. Commercially available.
Green Duct Tape	3 rolls	Decontamination line equipment. Commercially available.
Liquid Dish Soap	2 each	Decontamination line equipment. Commercially available.
Medical Scissors	6 each	Decontamination line equipment. Commercially available.
Combat Life Saver Bag	1 each	Decontamination line equipment. Commercially available.
Self Contained Breathing Apparatus (SCBA), air bottle	1 each	Decontamination line equipment. Commercially available.
Green Chemical Lights	1 box	Decontamination line equipment. Commercially available.
Red Chemical Lights	1 box	Decontamination line equipment. Commercially available.
Yellow Chemical Lights	1 box	Decontamination line equipment. Commercially available.
Infrared Chemical Lights	1 box	Decontamination line equipment. Commercially available.
Collapsible Sprayers	2 each	Decontamination line equipment. Commercially available.
Water Can 5 Gallon	2 each	Decontamination line equipment. Commercially available.

CBRT Containment (Packaging) Equipment Table (*For one CBRT*)

Equipment Type	Quantity Available for Mission	Remarks
Blood Overpack mdl 630	1 each	This blood overpack is a 3 in X 6 in packaging container filled with foam. It is used to transport biological samples. Commercially available.
Infectious Substance Container	1 each	This container is a blood overpack container 4 inches long. It is used to transport biological samples. Commercially available.
Sample Transfer Container (STC), Large	1 each	The STC (large) is an ice chest and cooler with 2 ft X 4 ft dimensions. It is used to transport chemical and biological samples. Commercially available.
Sample Transfer Container (STC), Small, Black	1 each	The STC (small) is an ice chest and cooler with 1 ft X 2 ft dimensions. It is used to transport chemical and biological samples. Commercially available.
SCOTTI Cooler, Large	1 each	The SCOTTI is a dual purpose container that can be used as a cooler or as a heater. It is used to off-gas samples for low level monitoring before package and transport operations. The SCOTTI can also be used to transport samples. Commercially available.
Heat Sealer	1 each	Equipment to perform packaging operations. Commercially available.
Bags for Heatsealer	1 pack	Equipment to perform packaging operations. Commercially available.
Quick Foam	6 each	Spray cans of fast drying foam. The quick foam is used for quick sealing and containment of leaking devices. Commercially available.
Cold Packs	4 boxes	Equipment to perform packaging operations. Commercially available.
I^2R glove box mdl X1717	6 each	Equipment to perform packaging operations. Commercially available.
Cold wraps	3 each	Equipment to perform packaging operations. Commercially available.
Vermiculite	1 liter	Vermiculite is used as a packaging material and also can be used to contain the spread of liquid contamination. Commercially available.
Sampling Bag	1 each	This bag contains equipment and materials used to collect suspected samples. Commercially available.

CBRT Dismantlement (Render Safe) Equipment Table (*For one CBRT*)

Equipment Type	Quantity Available for Mission	Remarks
XR-150P X-Ray System	1 each	This X-ray system is a self contained battery operated unit. The system is capable of penetrating steel approximately 3/8 of an inch.
MK 2 MOD 1 Dearmer	1 each	This tool is used for the remote disruption of improvised devices.
MX 22 Remote Firing Device	1 each	This firing device is a remote detonator that works on radio frequency to detonate firing systems up to 6 miles away (helo fired).
Foam Mitigation System	1 each	The system consists of a foam generator, a 50 cubic feet pup tent, and a 50 cubic feet kevlar inflatable tent. The foam is an aqueous based foam.
EOD Bomb Suit	1 each	This bomb suit help protects the EOD personnel from Improvised Explosive Devices (IEDs). The bomb suit is for use with small IEDs such as pipe bombs, package bombs, etc.
Andrex X-ray	1 each	The system required AC power. The system is capable of penetrating approximately one inch of steel.
Video Camera	1 each	The camera is a hi fi 8 mm camcorder.

CBRT Disposal (Transfer/Escort only) Equipment Table (*For one CBRT*)

Equipment Type	Quantity Available for Mission	Remarks
Jansport Duffel	2 each	This is a back pack to carry samples. Commercially available.
Drum Repair Kit	1 each	This kit is used to repair leaking drums. Commercially available.
Performance oriented packaging bandages (POP) bandages	4 each	The POP is used to stop, contain and seal leaking devices. Commercially available.
6 mil Bags	10 each	Equipment required to conduct transfer/escort operations. Commercially available.
Escape bottles	2 each	Individual respiratory protection equipment used in case of an accident during the transfer/escort operations. Commercially available.
Scissors	2 each	Equipment required to conduct transfer/escort operations. Commercially available.
10 quarts collapsible bucket	4 each	Decontamination equipment in case of an accident/incident during transfer/escort operations. Commercially available.
Surgeons gloves	10 pairs	Equipment required to conduct transfer/escort operations. Commercially available.
Hand Brushes	2 each	Decontamination equipment in case of an accident/incident during transfer/escort operations. Commercially available.
Long handled brushes	2 each	Decontamination equipment in case of an accident/incident during transfer/escort operations. Commercially available.
Water cans 5 gallon	2 each	Decontamination equipment in case of an accident/incident during transfer/escort operations. Commercially available.
Sponge	4 each	Decontamination equipment in case of an accident/incident during transfer/escort operations. Commercially available.

CBRT Disposal (Transfer/Escort only) Equipment Table (*For one CBRT*)

Equipment Type	Quantity Available for Mission	Remarks
ABC-M8 VGH Chemical Detector Paper	5 booklets	M8 are dye impregnated papers that change color when exposed to liquid chemical agent. M8 paper cannot detect chemical agents in vapor form. M8 paper it is an item of military detection equipment.
Collapsible Sprayerindian Type	2 each	This is a back pack decontamination sprayer. Commercially available.
Spill Pads	1 pack	Items used to contain the spread of liquid contamination. Commercially available.
Placards/Labels	12 each	Used to comply with Department of Transportation regulations when transporting hazardous materials. Commercially available.

Individual Protection Equipment Table (*For one CBRT*)

Equipment Type	Quantity Available for Mission	Remarks
Responder Suit	5 each	OSHA Level A approved suit for chemical warfare agents and industrial chemicals. Commercially available.
Self Contained Breathing Apparatus (SCBA)	5 each	SCBA is the system used to breath clean air in suspected contaminated area and/or confined spaces. Commercially available.
Tyvek Suit	10 each	OSHA Level B approved suit for chemical warfare agents and industrial chemicals. Commercially available.
Saranex Suit	10 each	OSHA Level C approved suit for chemical warfare agents and industrial chemicals. Commercially available.
M40 Series Protective Mask	10 each	This respirator provides respiratory, eye, and face protection against chemical and biological agents, toxins, and radioactive particles. It has a canister filter. The M40 series protective mask is a military respirator and is not NIOSH approved.
Chemical Protective Boots	10 pair	Overboots that provide protection against chemical and biological agents. Military equipment.
Chemical Protective Gloves	10 pair	Gloves that provide protection against chemical and biological agents. Military equipment.
Chemical Protective Undergarment	10 each	Undergarments that provide and extra layer of protection against liquid chemical agents. Military equipment.

Chemical and Biological Forensic Analytical Center, SBCCOM

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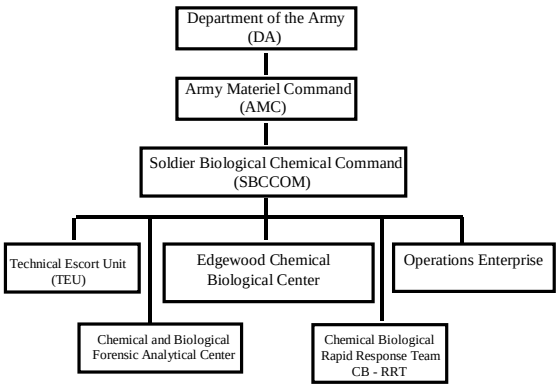

Mission: Support the multilateral Chemical Weapons Convention, the Bilateral Destruction Agreement, and the Wyoming Memorandum of Understanding. All of these treaties include provisions for sampling and analysis to verify compliance.

Capability: The Analytical Center provides an on-site analytical laboratory capability. The lab is capable of analyzing chemical surety materials, foreign chemical warfare agents, and all precursors and degradation by-products. The lab maintains an analytical spectra database that provides the capability for analyzing other hazardous industrial chemicals. The lab is comprised of a series of transportable modules, which contain analytical instruments such as GC/flame photometric/mass selective detectors, fume hood, and all supporting equipment such as electrical generators for short term power requirements.

This modular lab has been successfully field tested in the United States and Europe. The Analytical Center is a quality certified organization and is operated under ISO 9001 quality system and meets the requirements of ISO Guide 25. The Analytical Center maintains specialized equipment to accomplish its assigned mission. A detailed unit equipment listing is provided below.

Arms Control and Assistance Directorate
Chemical and Biological Forensic Analytical Center
Detection/Analytical Equipment Table

Equipment Type	Quantity Available for Mission	Capability	Remarks
Analytical Centeroratory	1	Nerve Agents (GB, GD, VX), Blister Agents (H series), agent degradation products, agent precursors and several industrial hazardous chemicals using the on board library spectra	The analytical instruments are transportable to anywhere in the world. Once at the designated site the laboratory is fully operable and self sufficient. The on-site capability must maintain the same quality assurance and quality control as permanent laboratory facilities. A series of transportable modules contain the analytical instruments for transportation. Instrumentation in the Analytical Centeroratory that enables these capabilities includes the following: gas chromatograph with mass selective detector (GC/MSD), a chemical fume hood, and all the support equipment necessary for the operation and maintenance of those instruments. The use of these modules is not limited to chemical weapons inspections. They can provide a real time on-site capability in any circumstance where a temporary laboratory is needed and conditions do not support a mobile laboratory. The system is adaptable and can be expanded to include other analytical systems as on-site laboratory needs change. The Analytical Centeroratory equipment sensitivity is below TWA levels for these chemical agents, chemical agent precursors and industrial chemicals. All instrumentation is commercially available.

Deployment:

Equipment: Depending on the mission equipment weight will vary from 1-3 STONS.

Personnel: The lab is accompanied by up to five personnel which include: one Ph.D. chemist, two chemists, and two sampling technicians.

Time requirements: The Analytical Center can be ready to deploy from home base within four hours of notification.

Location: Edgewood Area of Aberdeen Proving Ground, MD.

Support Requirements:

Aircraft: The modules can be transported via commercial or military aircraft or by land transportation

Lodging: Required. The Lab has no field capabilities.

Messing: Required. The Lab has no field capabilities.

Communications: Supported activity must provide external communications.

Electrical: Lab can deploy with organic generators.

Transportation: A 14 foot utility truck is required.

Miscellaneous: The laboratory requires between 400-500 square feet of workspace, environmental controls, and dedicated electrical power for longer duration.

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Edgewood Chemical Biological Center, SBCCOM

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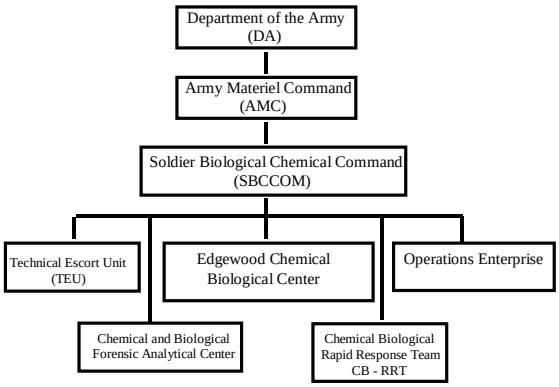
Contacts:
Chemical support Division
Mr. Tim Bades (410) 436-4675 DSN 584
Mr. Randolph Laye (410) 612-7446 DSN 584
FAX: (410) 671-3484



Web Site: www.sbccom.apgea.army.mil/RDA/ECBC/index.html

The Edgewood Chemical Biological Center (ECBC) is the DOD focal point for research, development and engineering of chemical and biological defense materiel. Only the Chemical Support Division (CSD) of the Operations Directorate at ECBC is considered for the CB WMD mission because of its rapid response analytical capabilities.

Mission: (Chemical Support Division) Serve as the ECBC point of contact for operations associated with chemical surety materiel (CSM)-related remediation and restoration at the Edgewood Area of Aberdeen Proving Ground, MD and formerly used defense sites. The CSD also manages and maintains support services and capabilities associated with material, facilities, and equipment vital to ECBC's mission. The CSD provides technical and program management support to DOD and other Government agencies associated with the processing of chemical facilities, equipment, and ammunition.

Capability: The CSD has the capability to provide a full range of CSM-related air, water, and soil analysis in support of ECBC, DOD and other Government agency operations and remediation efforts. The CSD also provides and maintains a repository of chemical agent standard analytical reference materials in support of the DOD chemical defense mission.

The CSD maintains specialized equipment to accomplish their assigned mission and a detailed unit equipment listing is provided.

Components: The CSD possesses the capability to provide low level monitoring using the Real Time Analytical Platform (RTAP), a vehicle containing a fully functional chemical analysis system. In its current configuration, the RTAP can automatically sample ambient air to detect the presence of specific chemical warfare agents (nerve and mustard agents). The RTAP uses a gas chromatograph (GC) equipped with an automatic, continuous air sampling system. The GC is equipped with a flame photometric detector (FPD), and uses ultra pure laboratory air,

hydrogen, and nitrogen supplied via a built in generator. The analysis process allows for the detection of GB, GD, VX, and HD in the same sample.

The CSD also has available the Mobile Environmental Analytical Platform (MEAP) which provides accurate and legally defendable determinations of chemical warfare material, expressly CSM, agent degradation products, World War I chemical warfare agents, and other compounds of military significance in environmental samples. The MEAP is designed as a fully functional trailer mounted laboratory able to perform critical on-site chemical analysis and monitoring. The MEAP is equipped with multiple GCs with various detectors, capillary electrophoresis with a ultraviolet diode array detector, and a automatic solvent extraction system. Support equipment includes a 30-kilowatt diesel generator, a fully filtered fume hood, dual refrigerators, a propane heater, air conditioning and a meteorological station. The total configuration is packaged into a large trailer. The main difference between the RTAP and the MEAP is that the RTAP is assembled in a dedicated truck, while the MEAP is contained in a large trailer, requiring a prime mover. The MEAP contains a larger array of analytical capability over the RTAP as shown in the table below.

Deployment:

Time requirements: The RTAP and operators can be ready to deploy in 4 hours after initial notification.

Location: Aberdeen Proving Ground, MD

Support Requirements:

Aircraft: The RTAP requires C-17 or C-5 air transport for long distance deployment.

Lodging: Required. ECBC CSD no field capabilities.

Messing: Required. ECBC CSD has no field capabilities.

Electrical: Electrical power for extended operations needs to be provided via hard wiring, while short term power requirements are supplied by two on board 75 kilowatt generators.

Edgewood Chemical Biological Center
Chemical Support Division
Detection/Analytical Equipment Table

Equipment Type	Quantity Available for Mission	Capability	Remarks
Real Time Analytical Platform (RTAP)	5	Nerve Agents (GB, GD, VX) and Blister Agents (H series). It also has the capability for monitoring industrial hazardous chemicals with the on board library spectra.	The RTAP automatically samples and analyzes ambient air to detect the presence of chemical agents. The RTAP is able to monitor for nerve and blister agents in the same sample. The instrumentation in the RTAP that enables these capabilities includes the following: Hewlett Packard 5890 gas chromatograph (GC) equipped with a Dynatherm Automatic Continuos Air Monitor (ACEM 900) comprises the sampling and analysis instrumentation. The GC is also equipped with a dual headed flame photometric detector (FPD). It is capable of 24 hour operation. The RTAP uses two 75 kilowatt generators to provide power to operate the laboratory. It can be connected, through umbilical cords, to land power for extended operations. The RTAP instrumentation sensitivity is below the Time Weight Average (TWA) levels for these agents and industrial chemicals. All the instrumentation in the RTAP is commercially available.
Miniature Chemical Agent Monitor System (MiniCAMS)	8	Nerve agents (GB, GD, VX), blister agents (H series).	The MiniCAMS is a gas chromatograph with flame photometric detector (GC/FPD). It is used for low level monitoring, detection and identification of chemical surety materials. The MiniCAMS sensitivity is below the Time Weight Average (TWA) levels for these chemical agents. Commercially available.

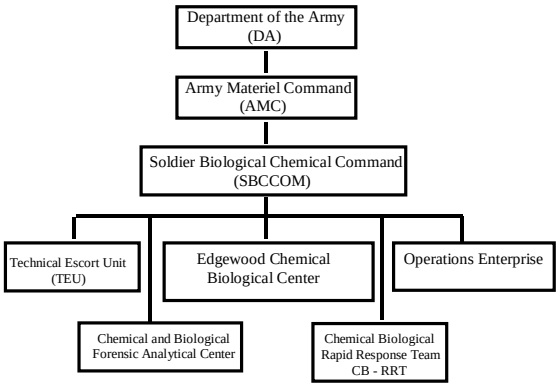
Edgewood Chemical Biological Center
Chemical Support Division
Detection/Analytical Equipment Table

Equipment Type	Quantity Available for Mission	Capability	Remarks
Mobile Environmental Analytical Platform (MEAP)	1	Nerve agents (GB, GD, VX), blister agents (H series), agent degradation products, World War I chemical warfare agents, and several industrial hazardous chemicals using the on board library spectra	The MEAP is designed as a fully functional trailer mounted laboratory to perform critical onsite chemical analysis and monitoring needs of the U.S. Army. Instrumentation in the MEAP that enables these capabilities includes the following: gas chromatograph with flame photometric detector (GC/FPD) for initial screening, gas chromatograph with mass selective detector (GC/MSD) for confirmation and unknown identification using library spectra, gas chromatograph with atomic emission detection (GC/AED) for confirmation and elemental elucidation, Capillary electrophoresis with ultraviolet diode array detection which is capable of separating and analyzing the aqueously soluble breakdown components and automatic solvent extraction system to prepare environmental samples according to the Environmental Protection Agency protocols. The MEAP instrumentation sensitivity is below the Time Weight Average (TWA) levels for these chemical agents and industrial chemicals. All instrumentation is commercially available.

Chemical Biological – Rapid Response Team, SBCCOM

Contact:
(410) 436-4676
After Hours call: SBCCOM Operations Center:
(410) 436-2148

Address:
SBCCOM Operations Center
Edgewood Area
Aberdeen Proving Ground, MD

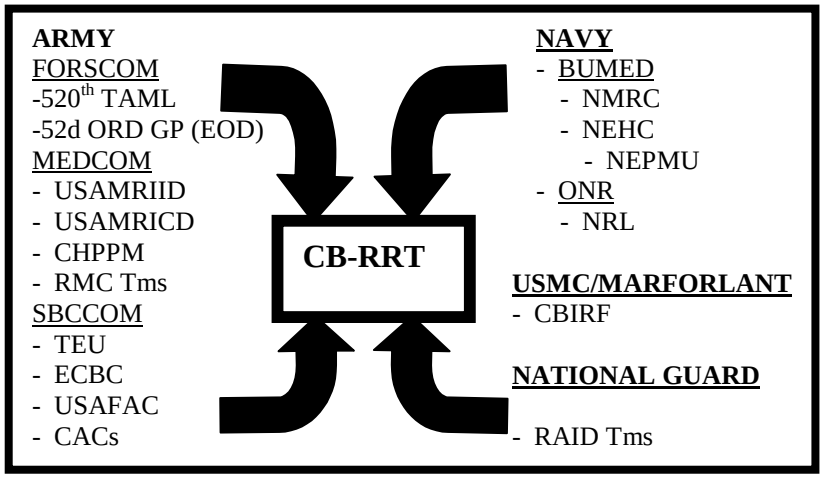


Mission: The Chemical Biological-Rapid Response Team (CB-RRT) is established to assume the mission of coordinating and managing the DoD technical capabilities necessary to respond to a CB terrorist incident. By coordinating the technical CB defense capabilities, the CB-RRT serves a critical role in the overall DoD response plan to provide DoD support to civil authorities in the event of a CB terrorist incident. The CB-RRT is composed of members of the Armed Forces and employees of DoD who are capable of providing technical assistance to aid federal, state and local officials in the response to, and mitigation of, incidents involving WMDs containing chemical or biological materials (or related hazardous materials). The role of the CB-RRT is to provide the capabilities to aid in the detection, neutralization, containment, dismantlement, and disposal of WMDs containing chemical, biological or related hazardous materials. Dismantlement for a chemical or biological item is further defined as render safe of the explosive components, leak sealing/packaging of the chemical or biological item, and the safe escort of the hazardous items for disposal.

The mission is to on order, deploy, in support of the LFA, and assist in the detection, neutralization, containment, dismantlement, and disposal of WMD articles containing (or suspected of containing) chemical and /or biological or related hazardous materials and assist first responders in dealing with potential WMD consequences. OPCON to the Supported CINC, JSOTF, or RTF, as directed.

Organization:

To accomplish the response mission, the CB-RRT must task organize and operationally control—or establish liaison with (liaison specifically with CBIRF, 52d Group (EOD) , RAID Teams) —a variety of units and capabilities from FORSCOM (52d Ordnance Group (EOD) and 520th TAML); U. S. Army Medical Command (MEDCOM) (USA Medical Research Institute of Infectious Disease (USAMRIID), US Army Medical Research Institute of Chemical Defense (USAMRICD), the Center for Health Promotion and Preventive Medicine (CHPPM), and, special medical response teams from the six Regional Medical Commands (RMC)); the supported Commanders-In-Chief (CINCs); the Marine Forces, Atlantic's (MARFORLANT) U.S. Marine Corps Chemical and Biological Incident Response Force (CBIRF); the National Guard Bureau (Rapid Assessment and Identification Detachments (RAIDS); and the U.S. Navy (Naval Research Lab (NRL), Naval Medical Research Center (NMRC), the Naval Environmental Health Center (NEHC) and the NEHC's Naval Environmental and Preventive Medicine Units (NEPMU)). SBCCOM provides the core CB-RRT architecture. SBCCOM also provides the USA Technical Escort Unit (TEU), Edgewood Chemical and Biological Center (ECBC) assets (analytical/sampling capabilities such as the Real Time Analytical Platform (RTAP), Mobile Environmental Analytical Platform (MEAP), Fourier Transform Infrared Detector (FTIR)), the U.S. Army Forensic Analytical Center (FAC), and the Chemical Activity Commands (CACs) as part of the CB-RRT response capabilities.



Command and Control:

The Commander, SBCCOM has overall responsibility for the CB-RRT. Once the CB-RRT is notified of a mission, he will either assume command of the CB-RRT or appoint a field grade officer as the CB-RRT mission Commander. When a mission is received, the CB-RRT will task organize to respond to the mission–assigned by the supported CINC–to support federal, state and local agencies. The CB-RRT will be under the operational control (OPCON) of the supported CINC, Joint Special Operations Task Force (JSOTF), or Response Task Force (RTF), as directed. (Currently, there are two RTFs organized under Atlantic Command (ACOM): RTF-East and RTF-West.) In carrying out the mission requirements of the supported CINC and LFA, the CB-RRT may establish operations at three locations: CB-RRT (Rear) (located in the SBCCOM Operations Center), CB-RRT (Main) (co-located with the LFA, in the vicinity of the RTF) and CB-RRT (Forward) (in the vicinity of the incident). Through secure communications and reach-back capabilities, the three sites will be linked. The CB-RRT (Rear) will be under the control of the SBCCOM Operations Center Director, who serves to maintain the current mission situation and coordinates and manages technical and support requirements necessary for continuity of Main and Forward operations. The CB-RRT (Main) will be under the command of a field grade officer, such as the SBCCOM Deputy for Stockpile and Operations. He will serve

as the operational commander of the CB-RRT for direct mission support and will manage the CB-RRT elements and technical requirements of the mission. The CB-RRT (Forward) will be under the control of the senior CB-RRT element commander (such as the Chemical Activity Commander or the senior CB-RRT asset commander) responding to the tactical mission. He serves to directly address mission requirements at the incident site

Operational Concept:
The CB-RRT provides the following capabilities to federal, state and local agencies through the supported CINC, JSOTF, and/or RTF (as directed):
Dismantle (render safe), transport, disposition/disposal and neutralization support.
Agent monitoring, hazard prediction, detection, laboratory analysis, mitigation and containment support.
Medical advice and support for patient decon, triage, transport and treatment.
Technical CB defense medical and non-medical advice and expertise on CB issues.

CB-RRT response is a four-phase operation which will be conducted sequentially from the time the organization is alerted for a response mission until the various assets arrive back to their home stations.

Phases of Operations
Phase 1 – Predeployment
Phase II – Deployment
Phase III – Operations/Execution
Phase IV – Redeployment/Recovery

The size and composition of the CB-RRT response will depend upon the response situation, the civilian response capabilities and the requirements of the supported CINC/LFA.
The CB-RRT support is broken down into roles, which correspond to DOMS's guidance concerning the situations under which CB-RRT support will be required.
By their very nature, these roles may not be performed sequentially, but may overlap.
The first role is to provide Command, Control, Communications, and Computers (C^4 The second role is to support the supported CINC and serve as)to the CB-RRT assets. The second role is to support the supported CINC and serve as the focal point for coordinating DoD crisis management technical response capabilities in support of civilian agencies. The third role is to serve as the focal point for coordinating and managing the DoD consequence management technical response capabilities in support of the supported CINC and providing CB defense technical assistance to federal, state and local agencies. The fourth role is to provide the coordination and management of DoD emergency technical response capabilities in support of known special security events.

Operational Roles of the CB-RRT
I – Provide C^4
II – Coordinate and Manage DoD Crisis Mgt Technical Response Capabilities
III – Coordinate and Manage DoD Consequence Mgt Technical Response Capabilities
IV – Coordinate and manage DoD Technical Response Capabilities for a Designated Event

Response Situations
I – Routine Support (No-WMD Suspected)
II – Crisis Management (WMD Threat)
III – Consequence Management (WMD Activated)
IV – Known National Security Event (such as the Recent Papal Visit)

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Operations Enterprise, SBCCOM

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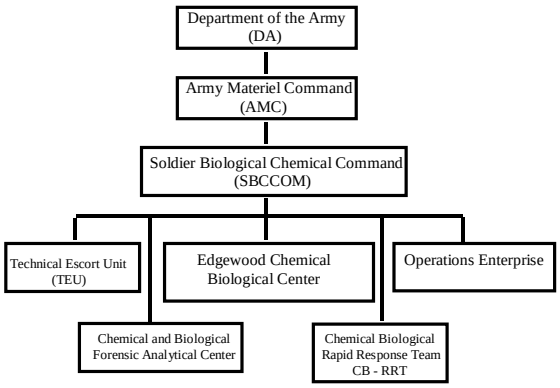
ATTN: AMSCB-SO
5232 Fleming Road
Aberdeen Proving Ground, MD 21010



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Mission: Ensure safe, secure, and reliable management of the chemical stockpile by storing, maintaining and monitoring the chemical warfare materiel stored at the eight activities/depots.

The Stockpile Business Area has multiple missions. The general mission stated above, deals with the storage of unitary chemical weapons and/or bulk agent at eight chemical storage activities/depots across the United States. The mission and capabilities addressed here for the Stockpile Business Area reflect only those assets that are available to aid Federal, State and local officials in response to a terrorist CB incident.

Capability: The eight storage locations require low level chemical agent monitoring capabilities which are provided by vehicle mounted Real Time Analytical Platform (RTAP) systems. There are twenty-three RTAPs available for potential use in a CB incident. Table 1 describes the type of RTAP available and for which agents the RTAPs are calibrated.

The RTAP systems, depending on their configuration, can automatically sample ambient air to detect the presence of specific chemical warfare agents (nerve and mustard agents). The RTAPs are calibrated for their specific intended use, depending on which agents are stored in a specific location.

Chemical Activities/Depots', RTAP Availability, Description, and Agent Calibration Information

Storage Location	RTAP, w/GC/FPD	RTAP, W/GC/FPD & GC/mass selective detector	Calibrated to Monitor (Chemical Agent(s))
Anniston, AL	2	1	H, GB,VX
Blue Grass, KY	5	N/A	H, GB, VX
Pine Bluff, AR	2	N/A	H, GB, VX
Pueblo, CO	7	N/A	H
Tooele, UT	3	N/A	H, GB, VX
Umatillia, OR	3	N/A	H, GB, VX

The chemical activities/depots maintain specialized equipment to accomplish their assigned mission. A detailed unit equipment listing is provided below.

Support Requirements:

Lodging: Required. RTAP/Operations Enterprise has no field capabilities.

Messing: Required. RTAP/Operations Enterprise has no field capabilities.

Communications: Supported activity must provide external communications.

Operations Enterprise Chemical Activities/Depots
Detection/Analytical Equipment Table

Equipment Type	Quantity Available for Mission	Capability	Remarks
Real Time Analytical Platform (RTAP) with Miniature Chemical Agent Monitor System, (MiniCAMS)	- Blue Grass Chemical Activity (BGCA), KY has 4 - Pine Bluff Chemical Activity (PBCA), AR has 5 - Pueblo Chemical Depot (PCD), CO has 5 - Deseret Chemical Depot (DCD), Tooele, UT has 4	- ANCA (nerve agents, GB/VX and blister agents (H series). - BGCA (nerve agents, GB/VX and blister agents (H series). - PBCA (nerve agents, GB/VX and blister agents (H series). - PCD (blister agents (H series)). - UCD (nerve agents, GB/VX and blister agents (H series). - DCD, UT (nerve agents, GB/VX and blister agents (H series).	This RTAP is configured with gas chromatograph with flame photometric detectors (GC/FPD). It automatically samples and analyzes ambient air to detect the presence of chemical agents. The MiniCAMS sensitivity is below the Time Weight Average (TWA) levels for these chemical warfare agents. Commercially available.
Real Time Analytical Platform (RTAP) with MiniCAMS (GC/FPD) and Gas Chromatograph and Mass Spectrometer (GC/MS)	- ANCA has 1 - PCD has 1 - DCD has 2	- ANCA (nerve agents, GB/VX and blister agents (H series). - PCD (blister agents (H series). - DCD, UT (nerve agents, GB/VX and blister agents (H series).	The RTAP automatically samples and analyzes ambient air to detect the presence of chemical agents. The GC/FPD and GC/MS sensitivity are below the Time Weight Average (TWA) levels for these chemical agents. All the analytical instrumentation is commercially available.
Automatic Chemical Agent Monitor System (ACAMS)	- BGCA has 4	Nerve agents (GB/VX) and blister agents (H series).	ACAMS is a full size GC/FPD capable of low level monitoring, detection and identification of nerve and blister chemical warfare agents. It detects below the TWA concentration for these chemical agents. Commercially available.
Chemical Agent Automatic Alarm, M8A1	- BGCA has 18 - PBCA has 12 - DCD has 6 - UCD has 20	Nerve Agents	This detector only detects nerve agent vapors. It is susceptible to false alarms. The M8A1 sensitivity levels are below the IDLH concentrations for nerve agent vapors (G series only). It is an item of military detection equipment.

Operations Enterprise Area Chemical Activities/Depots
Decontamination Equipment Table

Equipment Type	Quantity Available for Mission	Remarks
Decontamination Apparatus, M12A1	- BGCA has 2 - PBCA has 4 - DCD has 5	The M12A1 is a power driven decontamination apparatus typically mounted on a 5-ton truck for tactical mobility but can be dismounted to facilitate air transport. It can pump 50 gallons of decontamination solution per minute through both of its two hoses. The integral shower assembly provides 25 showerheads. The M12A1 is a military item of decontamination equipment.
Mobile Personnel Decontamination Station (PDS)	- PBCA has 1 - PCD has 4 - DCD has 1	Decontamination support equipment for the PDS. Its components are commercially available.

Individual Protection Equipment Table

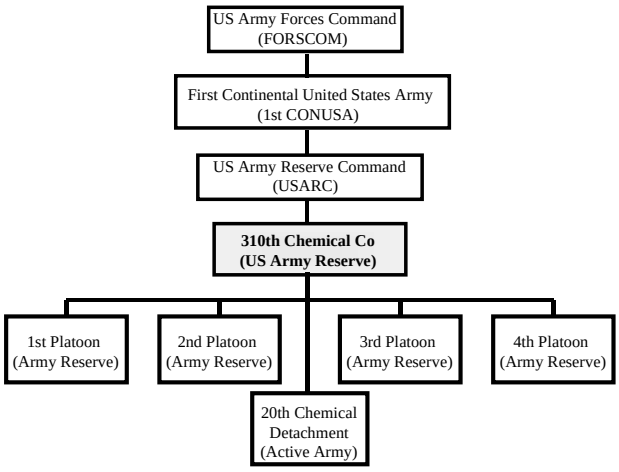
Equipment Type	Quantity Available for Mission	Remarks
Self Contained Breathing Apparatus (SCBA), Interspiro	- BGCA has 13 - PCBA has 5 - UCD has 10	Compressed air tanks. One air tank provides 30 minutes to 1 hour of air depending on work rate. Commercially available.
Self Contained Breathing Apparatus (SCBA), Mark 2	- BGCA has 14 - PCD has 12 - DCD has 15 - UCD has 5	Compressed air tanks. One air tank provides 30 minutes to 1 hour of air time depending on work rate. Commercially available.
STEPO I	- PBCA has 6 - BGCA has 4 - PCD has15 - UCD has 11	It is a fully encapsulated protective overgarment with SCBA system. Commercially available.
Cascade System	- PBCA has 4 - PCD has 2 - DCD has 1 - UCD has 2	Compressed air tanks. The system provides the user more air time than the SCBA. The user is connected to the system by an airline. This limits the distance and maneuverability of the responder. Commercially available.
OSHA Level B Sets	- DCD has 5	Commercially available.
M40 Series Protective Mask	- DCD has 50 - BGCA has 375 - PBCA has 2,000 - PCD has 50 - UCD has 50	This respirator provides respiratory, eye, and face protection against chemical and biological agents, toxins, and radioactive particles. It has a canister filter. The M40 series protective mask is a military respirator and it is not NIOSH approved.

310th Chemical Company (BIDS)

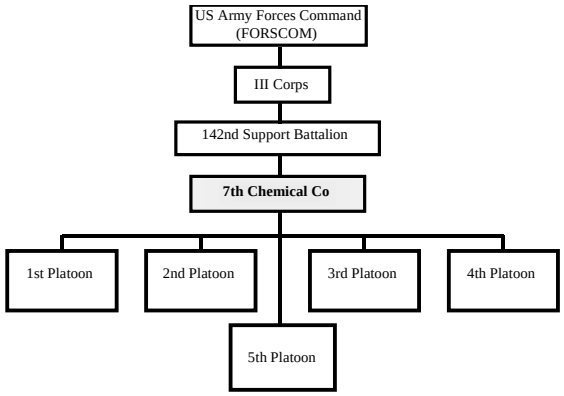
Address:
310th Chemical Company (BIDS)
Building 141B 13th Avenue
Fort McClellan, Alabama 36205-5000

Contacts:
Unit Administrator (256) 848-7152 DSN 865
Training Officer (256) 848-7483 DSN 865
FAX: (256) 848-7471

Web Site: Not Applicable



***NOTE: The **7th Chemical Company (BIDS)** will be activating at **Fort Polk** starting October 98. The E-date for the unit is October 99.



Mission (Purpose):
1. Limit the effects of large-area-coverage biological agent attacks that have the potential for catastrophic effects to U.S. forces at the operational level of war.
2. Provide a basis for medical personnel to determine effective preventive measures and the appropriate treatment if exposure occurs.
3. Provide the basis for warning and confirming that a biological attack has occurred. (Primarily designed for use in a rural environment and capabilities are severely degraded/limited in an urban environment)

Capability: Biological Integrated Detection System (BIDS) was developed in response to the biological warfare (BW) agent vulnerability of U.S. Forces during Operation Desert Storm. The BIDS is a multi-component system that provides monitoring, sampling, detection, and presumptive identification of BW agents.

Components:
The BIDS consists of an S-788/G Lightweight Multipurpose shelter mounted on a dedicated M1097 High Mobility Multipurpose Wheeled vehicle (HMMWV). The shelter is equipped with Biological Detection Suite composed of commercial Non Developmental Item sampling and detection equipment listed in the tables below. It includes other military and commercial equipment to provide collective protection, environmental control, meteorological data, communications, navigation and power distribution. A trailer mounted 15-kilowatt tactical generator (PU-801) supplies electrical power.

The Bio-Detection Company is a Corps level or higher asset and is organized with a Headquarters Platoon and five BIDS Platoons. There are seven BIDS Teams assigned to each Platoon. A BIDS team consists of two vehicles, the BIDS and a support vehicle, and four soldiers. Two soldiers perform analytical duties within the Biological Detection Suite and the other two soldiers are packaging and evacuating collected samples, resupply and provide security for the BIDS. The team is capable of conducting 24-hour biological surveillance operations. Each BIDS team is equipped with NAVSTAR GPS, capable of VHF and secured HF communications and TACMET meteorological station that provides automated continuous weather information. TACMET will provide local wind direction, windspeed, temperature, relative humidity, and dew point.

310th Chemical Company BIDS Equipment

Biological Integrated Detection System	Consists of an aerodynamic particle sizer with a high-volume air sampler (HVAPS), a Bioluminator, a Biological sampler, a Liquid sampler, a flow cytometer, a threshold device and detection tickets
HVAPS	Continuously samples the air to detect the possibility of biological agents present and automatically alerts the operator to start collecting samples with the Biological and liquid sampler
Microluminator	Measures the concentration of biological material in a liquid sample and display results
Biological sampler	Collects air particles and store them into a collection buffer. After a 45 minute sampling period, the sample is removed and transported to a lab for confirmation and analysis of biological agents
Liquid Sampler	A modified biological sampler in which the wet collector is replaced with a continuous flow liquid scrubber. This device also includes a sample delivery system that transfers the concentrated liquid to sample tubes. On demand, the delivery system dispenses 0.5 ml into a separate tube each minute. The biological detection team using various detection components then analyzes these samples.
Flow Cytometer	Detects the presence of bacterial cells in the liquid sample. The operator first treats the sample with a specific dye that permeates the cell wall and cytoplasm to stain the RNA and DNA. Lasers scan each individual cell for size, shape, and DNA/RNA ratio then using pattern recognition techniques, bacterial cells can be differentiated from natural background and categorized
Threshold device	Antibody based detection used to identify samples after positive identification from other biodetection suite detectors. This device is the most labor-intensive system in BIDS.
Biological Detection Tickets	Sensitive Membrane Antigen Rapid Test (SMART) tickets that use antibody based reagents to detect specific biological agents. Each ticket is specific to one agent, thus a separate ticket is needed to test for each of the suspected agents

*****NOTE:** The 7th Chemical Company at Fort Polk will be fielded with the product improvement (P3I) components for their BIDS.

7th Chemical Company BIDS Equipment

UVAPS	Ultra Violet Aerodynamic Particle Sizer (UVAPS) is a high volume aerosol sampling and detection device. It constantly samples the circulating air directing it through an opening to accelerate the velocity of aerosol particles. The UVAPS provides a measure of background aerosol concentration and particle size distribution. Changes in this background can indicate the presence of man-made aerosol associated with a BW attack. When preset threshold values are exceeded, the UVAPS will automatically activate the Liquid Sampler and Biological Sampler to collect samples.
Miniature Flow Cytometer (Mini-FCM)	Flow cytometer is the technology for making measurements on single cells as they pass through a focused light beam. Multiple measurements can be made on each cell at rates of several thousand cells per second. The Mini-FCM in the BIDS vehicle is used to determine whether the collected aerosol contains biological material in appropriate size.
Chemical Biological Mass Spectrometer (CBMS)	The CBMS system performs continuous collection, analysis, detection and warning during the mission. The operator brings the system on line by providing instructions to the CBMS computer utilizing an interactive touch screen. When the system is operational, the CBMS collector unit takes continuous air samples. The collected samples are heated every few minutes and decomposed by a pyrolyzer. The CBMS analyzes the sample by looking for the presence of certain target masses that are typical of chemical or biological agents. If these masses are present in the sample, the CBMS compares these masses to the baseline masses and identifies the type of chemical or biological agent. The results of this comparison are then sent to the CBMS computer in the form of a warning message that is displayed on the screen.
Liquid Sampler	The Carousel Liquid Sampler Collector is a high volume aerosol sampling and collection device. The central information processor will start the sampling cycle automatically (or initiated manually) when a suspected biological warfare attack is detected by the UVAPS or CBMS. When sampling, the liquid sampler samples ambient air through a two stage virtual impactor, which concentrates aerosol particles in 2 to 10 micrometer diameter sizes. The concentrated particle stream is directed through a continuous flow liquid scrubber and particles are transferred from the air stream to the collection fluid in the scrubber. The concentrated liquid is transferred to sample tubes that are analyzed by the BIDS crew using a mini-FCM, biological detector or hand held assays.
Biological Sampler	The Biological Sampler is a high volume aerosol sampling and collection device. On demand, it samples the ambient air through the collector stack at a rate of 1000 liters of air per minute and through a two stage virtual impactor which concentrates aerosol particles in the 2-10 μm size range. The concentrated particle stream is directed through a wet collector. The operator can adjust sample collection time but the recommended sample collection period is forty-five minutes. The collected samples will be disposed of, stored or evacuated to a laboratory for analysis of biological agents.
Biological Detector	Antibody based detection used to identify samples after positive identification from other biodetection suite detectors. This device is the most labor-intensive system in BIDS.
Hand Held Assay	The hand held assay is used to detect targeted BW agents.

Deployment:

Equipment/Supplies:

CLS (contractor logistical support) personnel and equipment for both maintenance and supply are required. 150 STONS of equipment and supplies.

7 BIDS vehicles
7 M1097 HMMWV
7 PU-801 15 k generators
7 High Mobility Trailers

Personnel:

A deployed BIDS Detachment consists of 38 personnel.

Time requirements:

A BIDS Detachment is capable of deploying from garrison for a no notice deployment in approximately 5 days.

Location:

310th Chemical Company is located at Fort McClellan, Al.
7th Chemical Company will be located at Fort Polk, La.

Platoons from the 310th will finish relocating by 1st quarter in FY 99 to the following locations:

Rome, GA (1 Plt)
Dobbins AFB, Marietta, GA (1 Plt)
Greenville, SC (1 Plt)
Ft McClellan, Ala (2 Plts)

Support Requirements (for one BIDS Detachment):

Aircraft: One BIDS Detachment requires two C-5 and a C-141 to deploy.

Lodging: Required. BIDS detachment has no field capabilities for domestic operations.

Messing: Required. BIDS detachment has no field capabilities for domestic operations.

Communications: Requesting activity must get frequency approval/clearance for HF Radio.

Miscellaneous: Depending on mission and situation, a "package" (additional units and/or personnel) may be required to support the BIDS' mission i.e. Technical Escort Unit (TEU), Theater Lab, Command and Control, and maintenance.

U. S. Marine Corps
Chemical Biological Incident Response Force (CBIRF)

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U.S. Marine Forces Atlantic
Chem & Bio Incident Response Force
PSC Box 20085
Camp Lejeune, NC 28542-0165

Contacts:
(910) 451-8118 DSN 751
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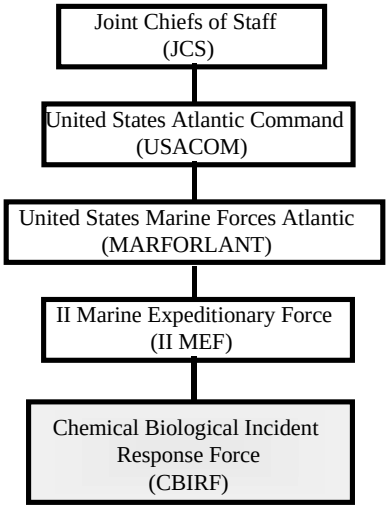


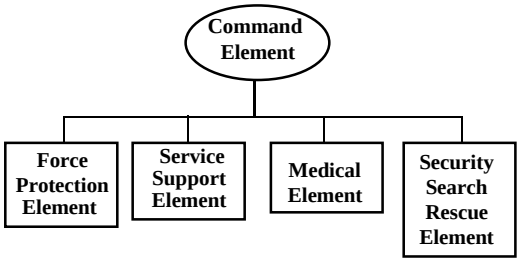
Web Site: Not applicable

Mission: Provide a highly trained, rapid response force capable of providing consequence management (threat identification, casualty extraction, personnel decontamination and medical triage/treatment/stabilization) for terrorist initiated chemical and biological attacks in order to mitigate the effects of multiple/mass casualty incidents.

Capability: As a consequence management response force, the CBIRF is tailored for short notice response to chemical/biological incidents. The CBIRF also maintains an information "reach-back" capability to a cadre of CB subject matter and disaster response experts for consulting purposes.

Components: The CBIRF provides a self-contained response in five areas:

1) Command (headquarters)
2) Force protection (chemical and biological detection/identification and decontamination, and explosive ordnance disposal).
3) Medical
4) Security
5) Service support



The CBIRF is structured in two parts, the Initial Response Force and a follow-on force. The Initial Response Force, comprised of 81 Marines and Navy personnel, is capable of providing initial incident assessment and limited consequence management. The follow-on force is comprised of approximately 250 Marines and Navy personnel.

The CBIRF, comprised of both the Initial Response Force and the follow-on force, has the capability, in accordance with established procedures, to process 50-100 non-ambulatory chemical and trauma patients within six to eight hours, and approximately 100 ambulatory patients per hour for a total of 200 patients. These quantities and rates are highly dependent on the incident circumstances such as, but not limited to agent(s) encountered, water availability and amount and severity of trauma encountered. For pre-planned events, the goal is to be able to acquire sufficient medical supplies to process 1,500 casualties.

The Initial Response Force can be tailored to the threat/mission however it deploys with part of the total CBIRF capability (as shown below):

1. External and internal communications
2. Protective equipment
3. Detection and identification equipment
4. Personal decontamination equipment
5. Medical treatment
6. Explosive ordnance disposal
7. Casualty airway protection
8. Casualty search and extract

The remaining consequence management equipment is transported with the follow-on force. The Initial Response Force service support element provides contracting support and is capable of procuring logistical support from government and non-government sources within the local community near the affected site.

Deployment:

Equipment: It takes the equivalent of 1 C-5 aircraft to airlift the Initial response Force and 3 C-5 and 1 passenger aircraft to airlift the CBIRF

Personnel:

Initial Response Force is comprised of 81 Marines and Navy personnel.
Follow-on force is comprised of 250 Marines and Navy personnel.

Time requirements:

The CBIRF Initial Response Force maintains a 24-hour, on call status and has a goal of being deployed, ("wheels-up"), within 4-hours with prior indication and warning and provided an aircraft is available. CBIRF Follow-on force can be ready to deploy within 18 to 24 hours of notification.

Location:

The CBIRF is located at Camp LeJeune, NC and has access to air transport, located at Cherry Point, NC.

Support requirements:

Aircraft: IRF: 1 C-5
CBIRF: 3 C-5 and 1 passenger aircraft

Lodging: Required.

Messing: Required.

Water: CBIRF has 2 ROPUs and can utilize local fire hydrants.

Electrical: CBIRF deploys with generators for electrical power usage but will contract for fuel on scene.

Footprint: Requires a staging area of approximately 100 yards by 50 yards .

Equipment Type	Quantity Available for Mission	Capability	Remarks
Chemical Agent Monitor (CAM)	21 each	Nerve Agents (G series) and Blister Agents (H series)	The CAM is a hand held instrument capable of detecting, identifying, and providing relative vapor concentration levels for chemical agents. The CAM sensitivity levels are below the IDLH concentrations for nerve agents (G series only) and above the IDLH for H series nerve and blister agents. The CAM is an item of military detection equipment.
Remote Sensing Chemical Agent Alarm, M21	3 each	Nerve Agents (G series) and Blister Agents (H series)	The M21 is an automatic scanning, passive infrared sensor that detects nerve and blister agent vapor concentration. It's effective at line-of-sight distances of up to five kilometers. This is an item of military detection equipment.
Draeger Tubes, Simultaneous Test Set	4 each	Formaldehyde, Hydrogen Flouride, Carbon Tetrachloride, Hydrochloric Acid, Cyanogen Chloride, Hydrocyanic Acid, Chlorine and Phosgene	The Draeger tubes sensitivity levels are below the IDLH concentrations for these industrial chemicals, The Draeger system detects industrial chemicals in vapor form. Additional Draeger tubes are commercially available to detect nerve and blister agents; however, the U.S. government has not tested and certified them for these chemical warfare agents. The manufacturer claims that their Draeger tubes for nerve agents (G series only) will detect below the IDLH levels. All Draeger tubes are commercially available.
HAZMAT Kit Deluxe Kit	4 each	Industrial Chemical Hazardous Materials	The HAZMAT kit detects the presence and concentration levels of these hazardous chemicals in the area of operation.
Inficon Hapsite	3 each	Identifies 121,000 chemical compound vapors, including Military chemical agents and their precursors.	Extremely sensitive portable Mass Spectrometer that provides a definitive print out analysis.
Inficon Hapsite Headspace Unit	2 each	Allows the Hapsite to detect chemical compounds in both liquid and solid samples.	
Mobilab and Fume Hood	2 each	Identifies 121,000 chemical compounds, and an additional 300 Military chemical agents from either solid, liquid or gas samples. Self sufficient with	Extremely sensitive vehicle mounted Mass Spectrometer / Gas Chromatograph that provides a definitive print out analysis.

		Nitrogen and Hydrogen gas generators.	
MultiRAE	6 each	Multigas Explosive Lowest Explosive Limit (LEL) sensor [Acetaldehyde, Acetic acid, Acetone, Acrylic acid, Acrylonitrile, Allyl alcohol, Ammonia, Benzene, Butadiene, Butane, Butyl acetate, Butyl acrylate, Carbon disulfide, Carbon monoxide, Chlorine, Cyclohexane, Cyclohexanone, Dichloromethane, Diesel, Diethtlamine, Dimethylhydrazine, Epichlorohydrin, Ethanol, Ethene, Ethyl acetate, Ethyl acrylate, Ethyl benzene, Ethyl ether, Ethyl hexyl acrylate, Ethyl sulfide, Gasoline vapors, Gasoline whole, Heptane, Hexamethyldisilazane, Hexane, Hydrazine, Hydrogen, Hydrogen sulfide, Isobutane, Isobutene, Isobutyl acrylate, Isopropanol, JP-4, JP-5, JP-8, Methane, Methanol, Methyl acrylate, M.E.K., Methyl isobutyl ketone, Methyl methacrylate, Methyl t-butyl ether, Nitric oxide, Octane, Pentane, Perchloroethane, Pinene a-, Pinene b-, Propane, Styrene, Tetrahydrofuran, toluene, Trichloroethane, Trichloroethene, Vinyl chloride, Xylene m-, Xylene o-, Xylene p-] - Ammonia sensor	The principle purpose of this gas detector is to warn the user of potential hazards in ambient atmospheres which may be explosive, toxic, or low in oxygen. Commercially available.

		- Oxygen sensor - Carbon Monoxide sensor - Hydrogen Sulfide sensor - Sulfur Dioxide sensor - Nitric Oxide sensor - Chlorine sensor - Hydrogen Cyanide sensor - Nitrogen Dioxide - PH3 - VOC 0-200ppm - VOC 0-2000ppm	
Sampling Kit	3 each	Up to 25 samples of either solid or liquid form. 5 different Biological assay tickets which are 99.9% accurate in identification.	Fabricated with commercially available materials.
AN-VDR-2	48 each	Beta and Gamma radiation.	The AN-VDR-2 is a hand held instrument capable of detecting and monitoring levels of Beta and Gamma Radiation. The AN-VDR-2 is an item of military detection equipment.
Alarm, Chemical Agent Detector, Automatic (ACADA)	5 each	G series Nerve and H series Blister Agents.	The ACADA is an automatic detector capable of detecting G and H Agents simultaneously. Provides Visual and Audible alarms. The ACADA is an item of military detection equipment.
AN/PDR-75	6 each	Measures accumulated dose of radiation.	Composed of the DT-236 wristwatch dosimeter and the CP-696 reader.

Decontamination Equipment Table

Equipment Type	Quantity Available for Mission	Remarks
Long Handle Brushes	24 each	Decontamination line equipment. Commercially available.
Plastic Pallets	80 each	Decontamination line equipment. Commercially available.
Traffic Markers	56 each	Decontamination line equipment. Commercially available.
Sponges	50 each	Decontamination line equipment. Commercially available.
EMT scissors	35 each	Decontamination line equipment. Commercially available.
Spray bottle	20 each	Decontamination line equipment. Commercially available.
Sprayer SP3 4 gallon	12 each	Decontamination line equipment. Commercially available.

U.S. Marine Corps
Chemical and Biological Incident Response Force (CBIRF)
Decontamination Equipment Table

Equipment Type	Quantity Available for Mission	Remarks
Shower Assembly Complete	4 each	This shower assembly provides 50 shower heads. It is made with commercially available parts.
Lightweight Decontamination Station, M17A1	6 each	The M17A1 is a lightweight power driven decontamination apparatus.
Bladder, LDS 3000 gallon	6 each	Decontamination line equipment. Commercially available.
Containment device 12 ft X 12 ft X 1 ft	6 each	Decontamination line equipment. Commercially available.
Containment device 14 ft X 40 ft X 1 ft	3 each	Decontamination line equipment. Commercially available.
Containment device 6 ft X 6 ft X 1 ft	6 each	Decontamination line equipment. Commercially available.
Chemical Protective System	6 each	They are modified portable collective protection systems. Used for the decontamination station. Military equipment.
Chemical Agent Monitor (CAM)	5 each	The CAM is a hand held instrument capable of detecting, identifying, and providing relative vapor concentration levels for chemical agents. The CAM sensitivity levels are below the IDLH concentrations for nerve agents (G series only) and above the IDLH for V series nerve and blister agents. The CAM is an item of military detection equipment.
Brute Container, 33 gallon	74 each	Decontamination line equipment. Commercially available.
Roller Conveyor	33 each	Decontamination line equipment. Commercially available.
Litter	10 each	Decontamination line equipment. Commercially available.
Litter Stand	40 each	Decontamination line equipment. Commercially available.
Heater System	4 each	Reddy 110,000 BTU. For Climate control in the decontamination line.
Sump Pump	6 each	This sump pump can process 3000 Gallon per Hour.

U.S. Marine Corps
Chemical and Biological Incident Response Force (CBIRF)
Individual Protection Equipment Table

Equipment Type	Quantity Available for Mission	Remarks
Self Contained Breathing Apparatus (SCBA)	115 each	SCBA is the system used to breath clean air in a suspected contaminated area and/or confined spaces. Commercially available.
Responder Suit	83 each	OSHA Level A approved suit for chemical warfare agents and industrial chemicals. Commercially available.
OSHA Level B Suit	199 each	OSHA Level B approved suit for chemical warfare agents and industrial chemicals. Commercially available.
M40 Series Protective Mask	2 per member	This respirator provides respiratory, eye, and face protection against chemical and biological agents, toxins, and radioactive particles. It has a canister filter. The M40 series protective mask is a military respirator and it is not NIOSH approved.
Chemical Protective Suit	5 per member	The Saratoga is an air permeable, camouflage patterned chemical and biological overgarment. It uses spherical, activated carbon absorbers immobilized in the liner fabric to provide protection against chemical warfare agents. The carbon spheres are also specially treated to minimize water absorption. This is an item of military equipment.
Chemical Protective Overboots	2 per member	Overboots that provide protection against chemical and biological agents. This is an item of military equipment.
Chemical Protective Gloves	2 per member	Gloves that provide protection against chemical and biological agents. This is an item of military equipment.
Toxilogical Agents Apron	30 each	Apron to wear over the Chemical Protective Suit when working in the decontamination line to prevent liquid contamination to come in contact with the user. This is an item of military equipment.
Adult Disposable Mask	200 each	Escape mask to extract casualties from a contaminated area. Commercially available.
Child Disposable Mask	10 each	Escape mask to extract casualties from a contaminated area. Commercially available.

U.S. Marine Corps
Chemical and Biological Incident Response Force (CBIRF)
Medical Equipment Table

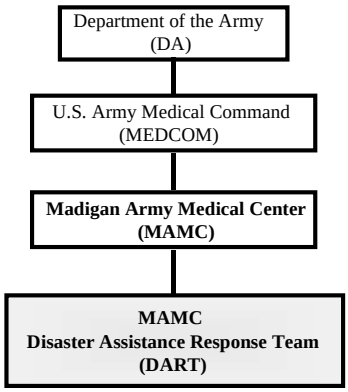
Equipment Type	Quantity Available for Mission	Remarks
Nerve Agent Antidote Kit (NAAK), MARK I	990 sets	The NAAK consists of two auto-injectors held in a single plastic clip. One small auto-injector containing atropine, which counters the symptoms, and a second auto-injector containing 2PAM Chloride, which counters the nerve agent itself. This is an item of military equipment.
Convulsant Antidote, Nerve Agent (CANA) Diazepam	330 each	The CANA is an auto-injector which contains 2 milliliters of the anti-convulsant drug diazepam. This is an item of military equipment.
Cyanide Antidote	100 each	This antidote consists of sodium nitrate and sodium diosulfate injectors. Commercially available.
Litters	38 each	This equipment is used for extraction of non-ambulatory casualties from the "hot zone", through the decontamination line and up to the medical stabilization station on the "cold zone". Commercially available.
KED Extraction Spinal Immobilization Devices	5 each	Self explanatory. Commercially available.
Leg Traction Devices	5 each	Self explanatory. Commercially available.
Other Medical Supplies		The medical team deploys with the necessary equipment to conduct triage operations on trauma patients in an incident site. Supplies like medications, syringes, oral pharyngeal, tongue blades, nasal pharyngeal, SAM splints, C-Collar (adult/child), bandages, dressings, IVs, etc. . Commercially available.

Madigan Army Medical Center
Disaster Assistance Response Team (DART)

Address:
Madigan Army Medical Center
Department of Emergency Medicine
Tacoma, Washington 98431

Contacts:
OIC (253) 968-0596/1390/1250 DSN 782
NCOIC (253) 968-0816 DSN 782
FAX: (253) 968-0596/0818 DSN 782

Web Site: Not Applicable



Mission: To provide a rapid deployment unit with triage, ambulatory/ litter and advanced medical/ trauma stabilization capabilities for the U.S. Army needs related to NBC incidents in the Western United States.

Capability: The DART capabilities include triage, decontamination, and stabilization of contaminated/ multiple injured casualties. DART serves as the medical augmentation team for Umatillia (Army Chemical Depot), where they conduct quarterly training. The team has 24-hour access to a board certified toxicologist. DART has received training in Medical Management of Chemical Casualties and Medical Effects of Nuclear Weapons. Team members have received substantial training in basic/advanced life support, trauma life support, HAZMAT, confined space medicine, crush injury medicine and emergency medical response to terrorism. They also participate in CSEPP exercises at chemical depots, NDMS exercises, national/local conferences concerning the Emergency response to terrorism, combined training with Puget Sound USAR, and the Summit of the Eight in Denver.
DECON capabilities: The DART operates at the transition line/hot line (Warm Zone) not in the Hot Zone. They set up 3 Western habitat tents, similar to the DMATS, dedicated to Litter decontamination, Ambulatory decontamination and Emergency Medical stabilization/ staging. The Ambulatory decontamination tent has 2 showers and is divided in the middle to segregate men and women. DART can decontaminate 2 non-ambulatory victims in 10 minutes and 2 ambulatory victims in 5 minutes using 55 gallon drums with sprayers attached containing a 0.5% bleach solution. A 5% bleach solution, dispensed via Indian tanks, is used to decontaminate equipment. DART can commence ambulatory and litter decontamination within less than 30 minutes of arriving on scene. The pharmaceutical cache consists of approximately 70 Mk I kits, as well as vials of atropine and 2 PAM Chloride. In addition, the pharmaceutical cache contains an extensive supply of various medications necessary to deliver advanced medical care.

Components: The DART is composed of personnel from the MAMC with an Army Captain OIC. The DART consists of EM physicians, 4 RNs, 6 LPNs, 7 Medics, and 2 lab Techs/Medics. Augmentation with additional board certified Emergency Medicine physicians as well as Nuclear Science personnel is available to meet mission needs.

Deployment:

Equipment: 4 tons of equipment tailored to PPE (Civilian levels B, C, Military MOPP), chemical decontamination/ detection, delivery of high acuity medical care. Comprehensive pharmaceutical cache, state of the art environmental shelters. (Entire packing list can be provided upon request).

Personnel:

The DART is composed of 20 personnel with an Army Captain OIC.

Time requirements:

The DART is on-call status 24-hours a day 7 days a week and can be ready to deploy ("wheels up") within two hours with an 8 hour response time in the western US.

Location:

DART personnel are located at Madigan Army Medical Center on Ft Lewis, WA. Personnel and equipment can deploy via aircraft from McChord Air Force Base or Gray Army Airfield.

Support Requirements:

Aircraft: C-141, CH-47 (mission dependent)

Lodging: Required for extended operations. Weather permitting, DART has the capability to lodge in their tents.

Messing: Required. DART has no field capabilities.

Communications: DART has 5 Motorola Saber 1's (nonsecure) and 3 laptop computers with the capability to receive/transmit faxes via cell phone.

Transportation: 20 foot 8 ton truck required for road transportation.

Electrical: Electrical power provided by three 8 Kw generators. Generators require 15 gallons of unleaded fuel.

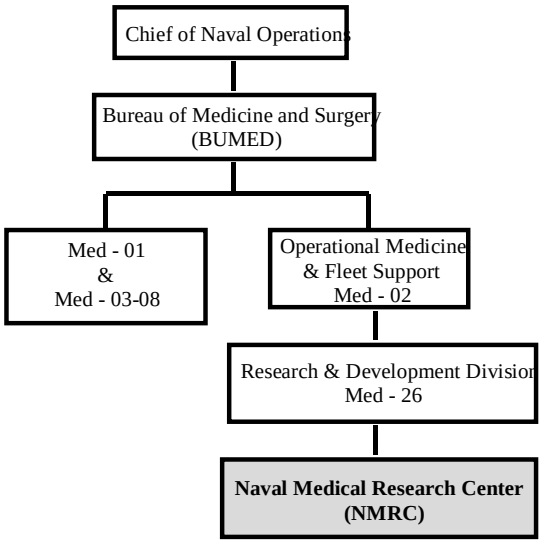
Miscellaneous: DART is capable of deployment in excess of 72 hrs (provided mess, water, fuel, latrine is secured at the area of opns). It is predicted that re-supply proceedings, to meet mission requirements, will commence immediately upon deployment through MAMC Logistics and Readiness Health Care Operations. DART maintains an IMPAC (Visa) card to ensure local purchase re-supply.

Naval Medical Research Center (NMRC)

Address:
8901 Wisconsin Avenue
Bethesda, MD 20889-5607

Contacts:
QuartECBCk (301) 295-0288 DSN 295
Public Affairs (301) 295-0201 DSN 295
BDRP (301) 295-0580 DSN 295
FAX: (301) 295-2023

Web Site: www.NMRC.nnmc.navy.mil



The Naval Medical Research Center has multiple missions in the areas of Infectious Diseases, Combat Casualty Care, and Military Operational Medicine. This section will focus on the mission of the Biological Defense Research Program (BDRP) one of the five Infectious Diseases Research Divisions.

Mission: To defend members of the Armed Forces against a biological threat in a theater of operations, rapid biological detection methods are essential for prompt medical intervention and successful mission accomplishment. To provide for such needs, the Naval Medical Research Center, Biological Defense Research Program (BDRP) within the Infectious Diseases Research has formed a scientific research program for the development of rapid detection and identification methods for biological warfare agents.

Capability: The BDRP has developed a capability that consists of a transportable biological field laboratory, expressly for identification of biological warfare agents.

Components: The field lab is comprised of four basic parts:

1) Basic microbiological techniques and bacterial culture identification
2) Enzyme-linked immunosorbent assay (ELISA) capability
3) Hand held chromatographic assays, also referred to as “tickets”
4) Polymerase chain reaction (PCR) capability.

Although the reagents in the assays were developed by BDRP/NMRC, most of the equipment comprising the field lab is commercially available scientific lab equipment except for the hand held chromatographic assays (i.e., tickets). The bacteria, viruses and toxins that can be identified by the field lab are presented in the following table. The field lab can process approximately fifty samples (four to five samples a day for a period of approximately two weeks) before replenishment of supplies is required. However, if enough advance notice is given additional supplies can be deployed. The field lab operators bring along all necessary lab equipment for operation. In addition to the capabilities of the NMRC field lab, the USAMRIID laboratories

provide a confirmatory and reference capability. This support would be required if the results from the NMRC field lab assays were all negative and a suspicion of BW agent contamination still existed.

BW Identification Assays Available from NMRC's BDRP Field Lab

Identification Assay ➡ **BW AGENTS**	**Hand Held Assays**	**PCR Confirmatory Assay**	**ELISA Immunoassays**	**Culture**
	(Time to Perform Assays)			
	(15 min)	**(2.5 hrs)**	**(4 hrs)**	**(16-18 hrs)**
Yersinia pestis (plague)	x[1]	x	x	x
Francisella tularensis (tularemia)	x[1]	x	x	x
Bacillus antracis (anthrax)	x (spores & protective antigens)	x	x	x
Vibrio cholerae (cholera)	x (only the specific strain of cholera 0139) [1]	x	x	x
Venezuelan equine encephalitis		x		
Staphylococcal enterotoxin A		x		
Staphylococcal enterotoxin B	x	x	x	
Staphylococcal enterotoxin C		x		
Ricin	x	x	x	
Botulinum toxins type A, B, E and F	x (type A and B only)	x	x	x
Coxiella burnetii (Q fever)		x		
Clostridium perfringens enterotoxin		x		
Yersinia enterocolitica		x		
Campylobacter jejuni		x		
Brucella species	x[1]	x	x	x
Pseudomonas pseudomallei		x		
Variola virus		x		
Orthopox Virus Group		x		
Filovirus Group		x		

1 - Undergoing final optimization x - Denotes identification procedure is applicable. Source: Naval Medical Research Center

Deployment:

Equipment: The field lab can be packaged into six to seven boxes with a total weight of 350 to 400 pounds.

Personnel: Two or three operators (from BDRP) with specialized training are required to operate the field lab.

Time requirements: The field lab can be ready to deploy within four hours of notification.

Location: The field lab components are located at NMRC, Bethesda, MD.

Support Requirements:

Aircraft: Commercial or military aircraft.

Lodging: Required. BDRP has no field capabilities.

Messing: Required. BDRP has no field capabilities.

Electrical: A minimum of four 110/220 V AC outlets are required.

Communications: Lab personnel deploy with cellular telephone.

Miscellaneous: Samples for the field lab are gathered by designated personnel, such as TEU or CBIRF, and not by the field lab operators. The field lab can be set up anywhere, however it is normally located in a "clean" area. The field lab can be set-up in any support location and requires a capability for freezing and refrigeration. Once on site requesting activity must provide shelter to protect lab from sun and inclement weather. Field lab operators would require PPE upon arrival.

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U. S. Air Force
Air Force Radiation Assessment Teams (AFRAT)

Team Chief: Lt Col Randall Scott
Phone: (210) 536-8786 DSN 240-8786
FAX: (210) 536-3189 DSN 240-3189

Address:
Air Force Radiation Assessment Team
2402 E Dr.
Brooks AFB, TX 78218

Mission: Rapid global response to radiation accidents/incidents, providing health physics and radioanalytical support to the AFFOR, JTF or CINC Surgeon.

Description: The Radioanalytical Assessment Team (RAT) is a globally responsive specialty asset team that provides field radioanalytical support to the assigned theater medical authority. The team measures, analyzes and interprets environmental and occupational samples for their content of radioactivity, providing expert guidance on the type and degree of radiological hazard that face deployed forces. Based on these assessments, recommendations are made to optimize force protection in-light of achieving mission objectives. Typical deployment scenarios will include consequence management operations from Broken Arrows, Faded Giants, and terrorist use of radiological dispersion weapons or improvised nuclear devices, or humanitarian assistance operations to countries that have experienced a nuclear exchange. The RAT is normally deployed in a supporting role to the Air Force Radiation Assessment Team (AFRAT) Nuclear Incident Response Force (NIRF) teams 1 and 2, but can also be deployed in a stand-alone capacity. The core team consists of two health physicists, two Medical Lab Craftsman and six Medical Lab Journeyman. Fewer team members can deploy when appropriate based on threat conditions.

Background: Today's modern battlefield continues to pose numerous radiological threats to the airman, ranging from exposure to depleted uranium munitions, as occurred during Desert Storm, to the grave hazards posed by the detonation of a rogue state or terrorist nuclear weapon. Historical threats also continue to exist, such as Broken Arrow and Faded Giant incidents. Adequate force protection from these radiological hazards requires specialized expertise and systems to measure, analyze and evaluate the levels of radiation that exist in the environment, and then the ability to effectively communicate these risks to the theater medical authority. If forces are deployed to areas where contamination is known or suspected, then an additional requirement exists to quickly and accurately assess internal contamination through bioassay assessment. This data provides for both short-term dose mitigation and medical management of the patient and long-term assessment of airmen total dose and risk of chronic health effects. Radiation exposure poses a unique spectrum of health effects ranging from the sequelae of acute radiation syndrome to delayed health effects like cancer and cataracts, in addition to the psychological impacts of fear and anxiety. These effects can reduce mission effectiveness, impact troop health, and lead to long-term medical-legal issues for the component services. To effectively protect forces while assuring mission accomplishment, it is critical that the theater medical authority receive expert guidance on what radiological threats do exist, what measures

can be taken to minimize troop and non-combatant exposures to radiation, and what radiation doses deployed forces actually receive. The RAT is intended to provide this information by supporting a comprehensive radiation surveillance and dose prevention program, thus minimizing the negative impact radiation exposure can have on assigned missions.

Threat: The proliferation of weapons of mass destruction and international terrorism continue to be the highest threats to US national security, and to our US armed forces abroad. The known smuggling and theft of nuclear materials and technology from the former Soviet Union, and the growing determination of rogue states and terrorists to acquire these materials emphasizes nuclear terrorism as a clear and present danger. Nuclear terrorism can take several forms. A radiological dispersion weapon can effectively deny area and cause terror by scattering radioactive materials or spent nuclear fuel over a large populated region. Terrorists could also attack a commercial nuclear power reactor and achieve similar results. If sufficient plutonium or highly enriched uranium is acquired, terrorists could fabricate an improvised nuclear device with possible yields on the order of that seen in Hiroshima and Nagasaki. Other radiological threats in today's modern battlefield include assisting countries that have experienced a nuclear weapons exchange, nuclear weapons accidents, such as Palomares, Spain and Thule, Greenland, nuclear reactor accidents, like Chernobyl, and more benign threats like depleted uranium use on the battlefield.

These threats, and the growing role of the Department of Defense in humanitarian assistance and consequence management operations requires the DoD to maintain highly skilled, trained and equipped individuals to assist in managing these contingencies. The Radioanalytical Assessment Team is a specialized asset designed to support these contingencies.

Tasks: The RAT team can deploy on short notice to assess radiological hazards following a nuclear or radiological incident/accident. The RAT will perform radioanalytical analysis on environmental samples such as swipes, soil, water, air and foodstuffs, and occupational samples such as whole body, breath, urine, and feces. Analyses results are interpreted for impact on deployed forces and non-combatants. Information is compiled for use by the medical authority for dose avoidance, dose reduction, dose assessment, risk communication, and additional requirements for effective consequence management. Team members have expertise in areas of health physics, environmental monitoring, radiation measurement, and medical laboratory operations.

Capabilities: The team uses a state-of-the-art forward deployed field laboratory, augmented by a reach-back radioanalytical capability at IERA, Brooks AFB, TX. OCONUS deployments are sheltered in an environmentally controlled, chemically hardened Trellenburg tent systems, whereas CONUS deployments take advantage of an environmentally controlled mobile radioanalytical trailer. Deployed instrumentation includes:

- High-resolution gamma spectrometers for gamma-emitting radionuclide identification and quantification in multiple sample types and for in-situ assessment of environmental contamination.
- Low resolution thyroid uptake systems for determination of inhalation or ingestion of radioiodines.

- Automated gas-flow proportional counting systems for determination of gross alpha and beta radiation contamination.
- Liquid scintillation counting systems for determination of low-energy beta radiation contamination.
- Kinetic phosphorescence analysis systems for determination of uranium in water and urine samples.
- Computer systems, plotters, printers and software to support laboratory information management, radiological accident modeling, graphical information management, and internal dose assessment.
- Laboratory scales, hot-plates, glassware, chemical supplies, sampling containers and other material necessary for field radioanalyses.
- Reach-back capabilities at IERA include nuclide specific analyses including alpha spectroscopy, and in-vivo whole body counting.
- The specialized expertise and equipment resources are intended to complement the health physics assets of AFRAT NIRF-1 and NIRF-2, jointly providing an integrated response to assess and manage a wide spectrum of radiological contingencies.

Vision: AFRAT NIRF/RAT capabilities are unique in DoD, providing the theater medical authority complete, integrated expertise in radiation protection, radiation measurements, environmental and occupational monitoring, plume modeling, risk projection, dose assessment, risk mitigation evacuation and protective actions and regulatory issues.
The AFRAT is currently pursuing three initiatives to enable our vision.

- Generating joint service endorsement and support of our mission concept, with the objective to incorporate AFRAT into relevant CINC CONPLANS and functional plans.
- Achieving an integrated liaison with the Marine CBIRF. This joint service force would provide the US and geographic CINCs a single response entity for NBC consequence management, and finally,
- Receiving AF command sponsorship and developing unit type codes for the various AFRAT capabilities.

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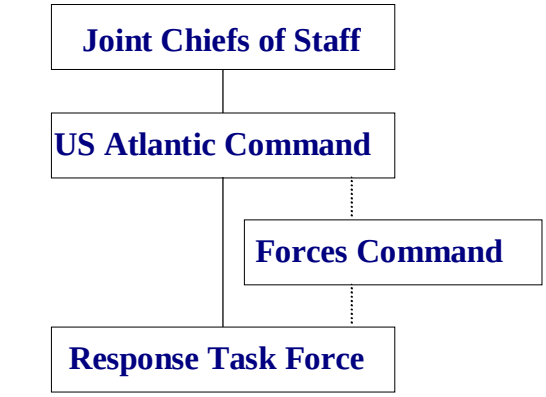
Response Task Force East (RTF-E)

Commander: BG Alan D. Johnson
Phone: (301) 677-3334 DSN 923
Email: johnsona@gillem-emh1.army.mil

Address:
Response Task Force -East
First United States Army
4705 North Wheeler Drive
Forest Park, GA 30297-5000



Contacts:

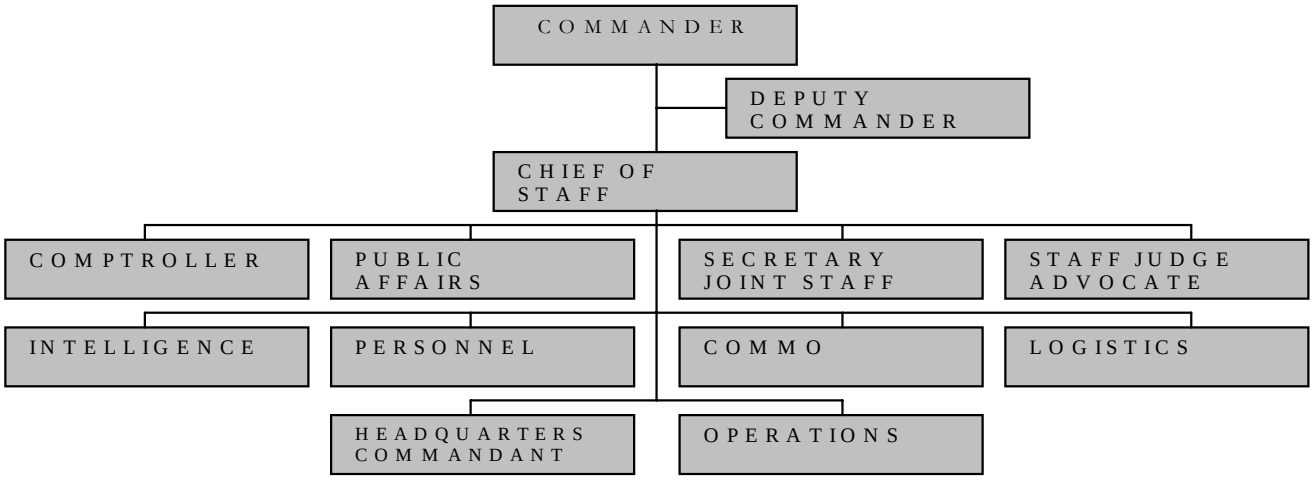
1USA EOC	(404) 362-3280 DSN 797
Chief of Staff	(404) 362-7353 DSN 797 (LTC James L. Reinebold)
Ops Officer	(404) 362-3106 DSN 797 (MAJ Baldy Balderas)
Staff Duty Officer	(404) 362-3400 DSN 797 or 1-800-816-2217

FAX: (404) 363-5832

Web Site: Not Applicable

Mission: When directed, First U.S. Army activates and deploys Response Task Force-East (RTF-E) to support the Lead Federal Agency during a Weapons of Mass Destruction (WMD) incident. Commander, RTF-E assumes operational control of all committed Department of Defense elements (less JSOTF), coordinates military support of crisis and consequence management operations and redeploys when Department of Defense disengagement criteria are met.

Capability: Establishes a fully functional RTF-E Command Post in the vicinity of the incident within 24 hours of notification. Exercises operational control of all federal Department of Defense resources committed to providing military support to civil authorities (MSCA). Provides liaison officers to appropriate civil agencies and receives liaison officers from appropriate military commands and agencies.



Components: The RTF-E is composed of members of the First Army HQ, both military and civilian from Ft Meade, MD and Ft Gillem, GA. The initial response team establishes initial liaison with the supported civil agencies and coordinates support for the follow-on personnel. The predesignated Defense Coordinating Officer (DCO) and Defense Coordinating Element (DCE) serve as special staff augmenting the RTF-E with additional personnel when established. Within 24 hours, RTF-E deploys the main body and establishes a command post capable of conducting 24-hour operations for command and control of federal Department of Defense elements (less JSOTF) supporting civil authorities. The RTF-E can also deploy all organic personnel at one time. Typical technical operations support resources under the operational control of RTF-E include elements of the U.S. Army Chemical-Biological Rapid Response Team (C-B RRT), Technical Escort Unit (TEU), 52^{d} Ordnance Group (Explosive Ordnance Disposal), and the U.S. Marine Corps Chemical-Biological Incident Response Force (CBIRF).

Deployment:

Personnel: 83 personnel (Includes 26 personnel from the DCE)

Time requirements:

Representative Cell: Enroute NLT N+4; 2 personnel
Advance Element: Enroute NLT N+12; 27 personnel
(5 from Fort Meade, MD and 22 from Fort Gillem, GA)
Main Body: Fully operational NLT N+24

Location: Ft Meade, MD and Ft Gillem, GA

Support Requirements:

Aircraft: Two C-141s or two C-130s are required for deployment.

Lodging: Required, RTF-E has no field capabilities.

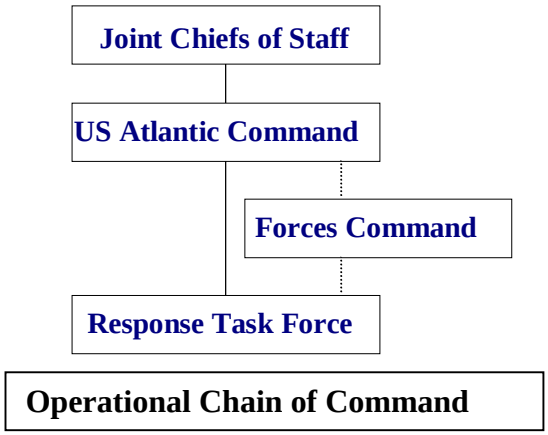
Messing: Required, RTF-E has no field capabilities.

Miscellaneous: The RTF-E command post requires office space for approximately 57 personnel. The RTF-E command post will be collocated or in close proximity to the location of the Federal Emergency Management Agency (FEMA) Emergency Response Team - Advance Element (ERT-A) or Disaster Field Office (DFO) when practical. Additionally, the RTF-E command post will be located in close proximity to the DCO/DCE whenever possible.

Response Task Force – West (RTF-W)

Commander: MG James T. Jackson (Ft Lewis, WA)
Phone: (253) 967-8288 DSN 357
Email: jacksonjt@5army.lewis.army.mil

Address:
HQ, Fifth United States Army
Deputy Chief of Staff, Operations (AFKB-OP-W)
1400 East Grayson Street, Ste 146
Fort Sam Houston, Texas 78234-7000



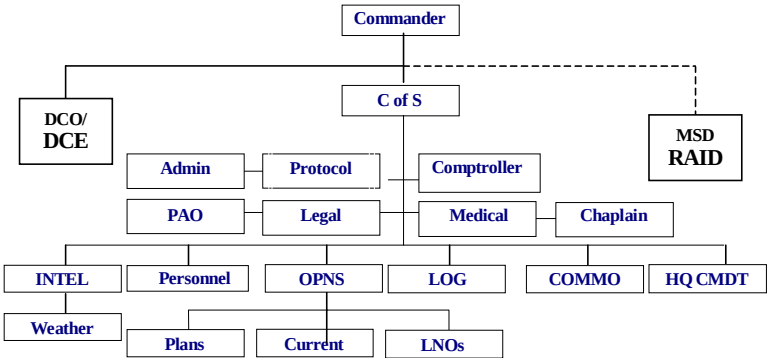
Contacts:
SDO (210) 221-2955/2401 DSN 471
DCSOPS (210) 221-1017 DSN 471 (COL Herbert G. Brown)
WMD Branch (210) 221-0791 DSN 471 (LTC Dorothea I. Wallace)
FAX: (210) 221-2125 (unsecured) -2525 (secure)

Web Site: Not Applicable

Mission: When directed, Fifth Army deploys RTF-W to support the Lead Federal Agency (LFA) during a Weapons of Mass Destruction (WMD) incident in USACOM's area of responsibility; assumes OPCON of committed DoD elements and redeploys upon meeting DoD support termination criteria.

Capability: RTF-W provides effective command and control of on-site DoD assets involved in crisis or consequence management during a WMD event. It also provides planning and coordination for the deployment and employment of additional DoD assets. Provides liaison to key local, state, and federal agencies to include, but not limited to, the FBI, FEMA, USSS, PHHS, DOE, and the EPA.

Components: RTF-W is composed of members of the Fifth Army HQ staff, both military and civilian. Its organization reflects that of a traditional staff with additional emphasis placed on enhanced liaison capabilities required to effectively coordinate with DoD and non-DoD organizations involved in WMD incidents. Typically, organizations such as SBCCOM, CBIRF, and a variety of logistical support organizations will be subordinate to RTF-W.



Deployment:

Equipment: Vehicles: 1-Communications Van
4-15 PAX Vans

Personnel: 105 personnel

Time Requirements:

Representative Cell: Enroute NLT N+4 hours	4 personnel
Advance Element: Enroute NLT N+12 hours	35 personnel
Main Body: Fully operational NLT N+24 hours	

Location: Ft Sam Houston, TX

Support Requirements:

Aircraft: One C-5 required for deployment. Can deploy from either Kelly AFB or Randolph AFB, both in San Antonio.

Lodging: Required, RTF-W has no field capabilities.

Messing: Required, RTF-W has no field capabilities.

Communications:
Radio Systems
1. Required operating frequencies at crisis site: 407.225, 407.3, 413, 413.5 MHz/12058.5, 10235.0, 8038.5, 7405.0, 5301.0, 4537.5 kHz.
2. Power transmission requirements from crises site: 40/500 watts.
3. Type of encryption used: National Security Agency (NSA) approved key material (STU-III).
4. Power requirements to operate radio equipment: 1.5 kW @ 100-120 VAC (estimate).
5. Area required for antenna erection: 100 by 100 Ft (minimum).

Telephones: 89 telephone lines (20 STU-III w/power requirement/125 watts each terminal)

Satellite System
1. Satellite system used by 5A on-site: INMARSAT STU-III secured and satellite telephone system.
2. Power requirements for satellite systems: 100 VAC (0.7KW estimate).
3. Area required for antenna deployment: Desktop (1 square meter x 4).

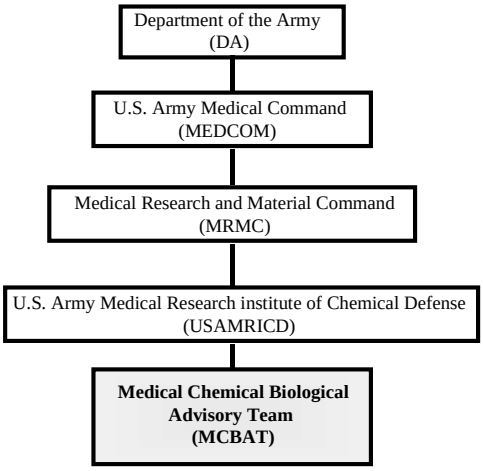
U. S. Army Medical Research Institute of Chemical Defense (USAMRICD)
Medical Chemical Biological Advisory Team (MCBAT)

Commander: Colonel James Little, USA
Phone: (410) 436-3276
FAX: (410) 436-4150
E-mail: James.Little@amedd.army.mil

Address:
USAMRICD
3100 Ricketts Point Road
Aberdeen Proving Ground, MD 21010-5400

Contacts:
Chemical Casualty Care Division (CCCD)
(410) 436-2230/3393 DSN 584
FAX: (410) 671-3086
E-mail: chemcascare@amedd.army.mil

Web Site: http://cw-med.org



Mission: To provide input in the development of operating procedures and training in the management of chemical agent casualties. The Medical Chemical Biological Advisory Team (MCBAT) also provides clinical advice and consultation in matters related to the initial and long-term management of chemical casualties at the incident site. The experts on this team are from the USAMRICD and the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID). They provide essential medical information during the recovery phase of the operation for the safe return to normal activities.

The MCBAT also provides on-site training to medical professionals on the Management of Chemical and Biological Casualties.

Capability: The MCBAT is the primary source of medical information dealing with the management of chemical warfare agent casualties for the federal government. Through the Federal Bureau of Investigation or agencies within the Department of Health and Human Services, the MCBAT may provide consultation to state, city, or local agencies.
The MCBAT will provide requisite consulting information to the incident commander by identifying the medical implications to military and/or civilian operation and immediate response. As necessitated, the MCBAT supervises the collection of biological samples (bodily fluids) for subsequent verification of chemical agent exposure that can be used to facilitate the confirmation, diagnosis, and treatment.

Components: The MCBAT is in contact with other subject matter experts (SMEs) at the USAMRICD and USAMRIID for additional information. The MCBAT is led by a physician and will be comprised of two or more individuals, depending on situational requirements. Team members are on call 24 hours a day by either telephone or pager. The team is equipped with personal protection equipment to perform its intended mission, related general-purpose equipment, and related supplies.

Deployment:

Equipment:

MOPP Gear (does not include supplies or equipment for detection, decon, or treatment).

Personnel:

Two to four personnel per MCBAT.

Time requirements:

The MCBAT is capable of wheels-up deployment within four hours of notification.

Location:

The USAMRICD is located at Aberdeen Proving Ground, MD.
The USAMRIID is located at Fort Detrick, MD.

Support Requirements:

Aircraft: MCBAT can deploy on a commercial or military aircraft from Andrews AFB.

Lodging: Required. MCBAT has no field capabilities.

Messing: Required. MCBAT has no field capabilities.

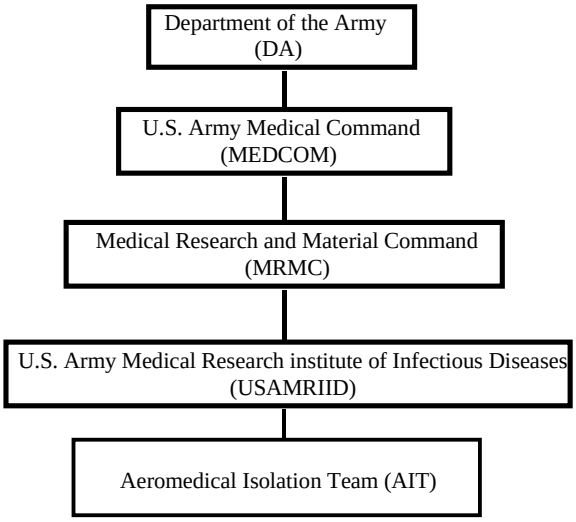
Communications: Requesting activity must provide phone lines, Secure communications, and secure Internet for the MCBAT.

Miscellaneous:
Once on scene the MCBAT will require one GP-medium tent or equivalent facility with 8 standard 110V outlets to set up operations. The MCBAT has deployed to participate in the Atlanta Olympics, Denver Summit of Eight and with the Foreign Emergency Support Team for the Secretary of State. The MCBAT can operate indefinitely but must be supplied by the unit they support.

U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID)

Address:
Commander USAMRIID
1425 Porter St
Fort Detrick
Frederick, MD 21702-5011

Contacts:
PAO (301) 619-2285



Web Site: http://140.139.42.105

Mission: Conduct research to develop strategies, products, information, procedures and training programs for medical defense against biological warfare threats and infectious diseases. Develop products, such as vaccines, drugs, diagnostic tests, and medical management procedures, to protect military personnel against biological attack or against endemic infectious diseases. Provide medical and scientific subject matter experts, and their technical expertise and guidance to commanders and senior leaders on prevention and treatment of hazardous diseases and management of biological casualties. Serve as the DOD reference center for identification of biological agents from clinical specimens and other sources.

Capability: USAMRIID has many capabilities that can be employed for assessing and evaluating a biological terrorist incident, from initial communication of the threat through incident resolution. The primary capabilities provided by USAMRIID are intellectual capability (consulting), extensive fixed confirmatory and reference laboratory facilities, and the Aeromedical Isolation Team.

Components: USAMRIID can provide two personnel, a medical doctor with expertise in management of casualties caused by biological warfare agents and a scientist with laboratory and scientific expertise on BW agents to participate in the initial response to a potential or known biological incident. The intent of providing the subject matter experts is to aid in evaluating the threat, aid in characterizing BW agent(s), assessing impacts resulting from dissemination, identifying protection and treatment strategies, and formulating medical and operational plans for consequence management and diagnostic support. USAMRIID's extensive laboratory facilities offer confirmatory and reference capabilities, for use by the Naval Medical Research Center's mobile laboratory and any other agency requiring such services. In addition to the laboratory and BW agent expertise, a limited capability exists to transport one or two biological casualties, requiring specialized containment, to a medical containment care facility located at USAMRIID with the support of the Aeromedical Isolation Team (AIT). The facility has a 16-bed ward with a capability of isolating up to biocontainment level (BL) 3, infectious diseases in a contingency situation. The facility also has a special BL 4 containment care facility with a maximum

capacity of two beds and offers additional specialized care capabilities, to include limited intensive care.

Aeromedical Isolation Team

Mission: To maintain the personnel, skills and equipment necessary to transport and provide patient care under high containment for a limited number of individuals exposed to or infected with highly contagious and dangerous diseases that are a result of naturally occurring organisms, biological warfare agents, terrorism, and possibly exposure of field researchers.

Capability: The AIT is a rapid response unit that can deploy to any area of the world to transport and provide patient care under high containment. Currently there are no personnel assigned directly to the AIT. The AIT possesses a limited capability, equipment and staff, which is not feasible for use in a mass casualty situation. The AIT is comprised of two teams, each capable of transporting a single patient.

The AIT maintains specialized equipment and required medical supplies to accomplish its assigned mission. The Team uses two Vickers air transportation isolation units (87 X 27 X 60 inches) and two Vickers isolation stretchers (87 X 27 X 34 inches) for transportation of highly contagious patients. These Vickers are negative pressure and filtered air containment units used to house and examine the patient while in flight.

Deployment: Aeromedical Isolation Team only

Personnel: AIT personnel: 4 Physicians, 1 Nurse/OIC, 6 combat Medics, 1 NCO, 1 LPN and 2 Lab Technicians.

Time requirements: The AIT's goal is to deploy, (wheels up), in four hours.

Location: The AIT is located at USAMRIID, Ft Detrick, MD. The team deploys from Andrews Air Force Base, MD or utilizes the West Virginia National Guard assets at Martinsburg, WV.

FEDERAL RESPONSE ASSET

Department of Defense

Armed Forces Radiobiology Research Institute (AFRRI). This is DOD's sole laboratory for conducting biomedical research to address military medical operational requirements for dealing with the prompt and delayed effects of radiation exposure. AFRRI is currently assigned to the Uniformed Services University of the Health Sciences.

Air Force Chemical Assessment Team (AFCAT). A deployable team of chemist, laboratory technicians and equipment. AFCAT provides chemical analysis in air, water, and soil. Located at Brooks AFB, TX, AFCAT can deploy, depending upon the situation, within 72 hours.

Air Force Technical Applications Center (AFTAC). AFTAC located at Patrick AFB FL provides post-detonation plume trajectory prediction, meteorological modeling, complete plume analysis/characterization, and leading edge technology development for monitoring of Chem Bio activities. AFTAC deploys a dedicated C- 1 35 collection platform aircraft stationed in Omaha.

US Army Radiological Advisory Medical Team (RAMT). Specially trained in radiological health matters, this team can provide assistance and guidance to the on-scene CRTF and local medical authorities. The team is located at Walter Reed Army Hospital, Washington, DC.

US Army Radiological Control (RADCON) Team. This team is organized to provide radiological monitoring support and advice to the CRTF. The team is capable of deploying within several hours from Ft. Monmouth, NJ.

Chemical Stockpile Emergency Preparedness Program (CSEPP). CSEPP is a joint FEMA - Army program in which local assets are supplemented to respond to accidents/incidents at each of the eight chemical agent stockpile locations. Through this program, the Army provides technical assistance and required resources in developing and implementing emergency response plans and related preparedness capabilities, integrating the on- and off-post planning process.

Defense Technical Response Group (DTRG). DTRG is a deployable team of civilian DOD scientists that provided specialized one-of-a-kind equipment and on scene technical advice to EOD operators during the access to and disruption phases of a WMD incident. DTRG has a 4-hour mission response time and an Airforce airlift mission in place.

Federal Emergency Management Agency (FEMA)

Urban Search and Rescue Team (USRT**).** The USRTs save lives and protect property from both natural and man made catastrophic urban disasters. USRTs have a limited HAZMAT capability.

Rapid Response Information System (RRIS). The RRIS is a database containing information on federal NBC response capabilities, NBC agents and munitions characteristics, and safety precautions.

Department of Health and Human Services (DHHS)

Metropolitan Medical Strike Team (MMST). The MMSTs operate as a specially organized team. Their capabilities include agent detection and identification, patient decontamination, triage and medical treatment, patient transportation to hospitals, and coordination with local law enforcement activities. Twenty-seven teams have been initiated. The federal government's goal is to develop MMSTs for the 100 most populous cities in the U.S.

National Medical Response Team (NMRT). The NMRTs are comprised of medical personnel. These teams are capable of agent identification, patient decontamination, triage and medical treatment in support of local health systems. - There are three NMRTs.

Center for Disease Control and Prevention (CDC). The CDC capabilities are epidemiological surveillance, biological agent identification, and public health consultation and response.

Agency for Toxic Substance and Disease Registry (ATSDR). The ATSDR provides consultation and advice on issues relating to the release, or threatened release of hazardous substances.

Federal Drug Administration (FDA). The FDA provides regional laboratory support and surveillance assistance in support of public health.

Substance Abuse and Mental Health Services Administration (SAMHSA). The SAMHSA provides mental health support and crisis counseling during emergencies.

Federal Bureau of Investigation (FBI)

Hazardous Materials Response Unit (HMRU)**.** The HMRU has specialized sampling, detection and identification capabilities of NBC agents. Also equipped with a variety of personal protective (OSHA Levels A - C) and rescue equipment.

Evidence Response Teams (ERTs**)**. The ERTs main functions are crime scene documentation and evidence collection in support of criminal investigations. Some ERTs are HAZMAT trained.

Critical Incident Response Group (CIRG). These teams are specially assembled to conduct tactical and crisis management efforts.

Intelligence Collection and Analysis**.** The FBI has experts that contribute to and coordinate detailed interagency threat assessment activities.

Environmental Protection Agency (EPA)

On-Scene Coordinators (OSCs). Under the authority of the National Contingency Plan, EPA OSCs coordinate all Federal containment, removal, and disposal efforts and resources during an incident. EPA OSCs work with state, local and private responders to protect human health and the environment. EPA has approximately 185 OSCs at 17 locations nation-wide. (The United States Coast Guard also has OSCs for incidents in coastal areas.) For site-specific assistance, EPA OSCs can provide responders with access to any of the resources described below:

(a) Environmental Response Team (ERT). EPA's ERT can provide 24-hour access to special decontamination equipment for chemical releases and advice to the OSC in hazard evaluation; risk assessment; multimedia sampling and analysis; on-site safety; clean-up techniques, and more. The ERT has portable chemical agent instrumentation capable of detection and identification in the low and sub parts per million, as well as entry-level capabilities using Level "A" through "C" personal protective equipment.

(b) Radiological Emergency Response Team (RERT). EPA's RERT can provide on-site monitoring and mobile laboratories for field analysis of samples, along with expertise in radiation health physics and risk assessment. The RERT is accessible 24 hours per day.

(c) Environmental Radiation Ambient Monitoring System (ERAMS). EPA operates ERAMS for monitoring radioactivity in samples of precipitation, air, surface water, drinking water, and milk. In the event of a radiological emergency, sampling at the approximately 260 monitoring sites can be increased to provide information on the spread of contamination.

(d) Radiation Environmental Laboratories. EPA has two state-of-the-art radiological laboratories in Montgomery, Alabama, and Las Vegas, Nevada. By quickly characterizing radiation sources, they can offer advice on how best to protect public health in emergency situations.

(e) EPA Research Laboratories. EPA's 12 research laboratories offer programs in field monitoring, analytical support, and other technical support to quality assurance programs related to air, water, wastewater, and solid waste. Five of these laboratories are capable of deploying mobile units to a contaminated site for chemical and biological analysis.

(f) National Enforcement Investigations Center (NEIC). EPA's NEIC offers expertise in environmental forensic evidence collection, sampling, and analysis; computer forensics and information management; and enforcement-related technical analysis.

Department of Energy (DOE)

Radiological Assistance Program (RAP). The RAP provides the initial DOE radiological emergency response. Under the RAP, there are several Radiological Assistance Teams (RATS) to assist in identifying the presence of radioactive contamination on personnel, equipment and property at the accident or incident scene. These teams also provide advice on personnel monitoring, decontamination, and material recovery.

Radiation Emergency Assistance Center/Training Site (REAC/TS). The REAC/TS provides 24-hour medical consultation on health problems associated with radiation accidents. It also provides training programs for, and emergency response teams comprised of health professionals.

Nuclear Emergency Search Team (NEST). The NEST provides technical response to resolution of incidents involving improvised nuclear and radiological dispersal devices. The team is able to search, locate, and identify devices or material.

Joint Technical Operations Team (JTOT). The JTOT is a combined DOD and DOE team that provides technical advice and assistance to DOD.

Aerial Measuring System (AMS). The AMS provides helicopters and fixed wing aircraft to respond to radiological emergencies. Its capabilities include aerial radiation surveys and search (gamma spectroscopy), real-time radiological aerial sampling, aerial photography survey, and aerial multi-spectra scanning surveys.

Atmospheric Release Advisory Capability (ARAC). The ARAC provides real-time computer predictions of the atmospheric transport of radioactivity from a nuclear accident or incident.

Federal Radiological Monitoring and Assessment Center (FRMAC). The FRMAC coordinates federal off-site radiological monitoring and assessment activities for a nuclear accident or incident.

Accident Response Group (ARG). The ARG is the technical response group for U.S. nuclear weapons accidents. The team provides equipment and technical assistance for weapon damage, risk assessment, safe recovery, packaging, transportation, and disposal of damaged weapons.

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ABBREVIATIONS

AFRAT	Air Force Radiation Assessment Team
AFRRI	Armed Forces Radiobiology Research Institute
AFTAC	Air Force Technical Application Center
AFTAC	Air Force Technical Applications Center
AIT	Aeromedical Isolation Team
BDRP	Biological Defense Research Program – NMRC
BIDS	Biological Integrated Detection System
CBIRF	USMC Chemical Biological Incident Response Force
CB-RRT	Chemical Biological Rapid Response Team
CCCD	Chemical Casualty Care Division of USAMRICD
CINC	Unified Combatant Commander
CJCS	Chairman, Joint Chiefs of Staff
CSD	Chemical Support Division
CSEPP	Chemical Stockpile Emergency Preparedness
CSM	Chemical Surety Material
DART	Disaster Assistance Response Team
DCE	Defense Coordinating Element
DCO	Defense Coordinating Officer
DHHS	Department of Health and Human Services
DNA	Defense Nuclear Agency
DOD	Department of Defense
DOE	Department of Energy
DOMS	Director of Military Support
DOT	Department of Transportation
DSWA	Defense Special Weapons Agency
DTRG	Defense Technical Response Group
EOD	Explosive Ordnance Disposal
EPA	Environmental Protection Agency
ECBC	Edgewood Chemical Biological Center
FEMA	Federal Emergency Management Agency
JSOTF	Joint Special Operations Task Force
JTF-CS	Joint Task Force-Civil Support
JTOT	Joint Technical Operations Team
LFA	Lead Federal Agency
MAMC	Madigan Army Medical Center
MCBAT	Medical Chemical Biological Advisory Team
MEAP	Mobile Environmental Analytical Platform
MRAT	Medical Radiological Assessment Team
MRMC	US Army Medical Research and Material Command
MSCA	Military Support to Civil Authorities
NBC	Nuclear, Biological, Chemical
NCP	National Contingency Plan
NMCC	National Military Command Center
NMRC	Naval Medical Research Center

NRC	Nuclear Regulatory Commission
OSC	On-Scene Commander
OSD	Office of the Secretary of Defense
OSHA	Occupational Safety and Health Administration
RADCON	Radiological Control
RADIAC	Radioactivity Detection Indication and Computation
RAMT	Radiological Advisory Medical Team
RSP	Render Safe Procedures
RTAP	Real time Analytical Program
RTF	Response Task Force
SBCCOM	Soldier Biological Chemical Command
SIED	Special Improvised Explosive Device
SME	Subject Matter Expert
SOF	Special Operation Forces
TEU	Technical Escort Unit
USAMRICD	US Army Medical Research Institute of Chemical Defense
USAMRIID	US Army Medical Research Institute of Infectious Disease
USAMRMC	US Army Medical Research and Material Command
USANCA	US Army Nuclear/Chemical Agency
WMD	Weapons of Mass Destruction