

Installation CBRNE Preparedness Campaign Plan



UNITED STATES MARINE CORPS



***Installation CBRNE Preparedness
Campaign Plan***

Published by:

***Plans, Policies, and Operations,
Headquarters, Marine Corps
December 1, 2003***



Scenario

Following the onset of U.S. involvement in a military conflict within a Middle Eastern nation, numerous terrorist groups have condemned the U.S. for its actions. Fearing an ever-growing U.S. presence in the region, several terrorists groups have vowed attacks against U.S. interests, both domestic and abroad.

A terrorist cell has planned a chemical attack against a U.S. Marine Corps base located in the Southern U.S. using commercially available chemical agents frequently shipped via tanker trucks. As with those on September 11th, these attacks are a coordinated effort to destroy multiple targets and to inflict maximum damage.

0400: *After observing a local tanker truck company's operations for several weeks, a terrorist cell stages an accident on an isolated stretch of road. When an unmarked tanker truck filled with highly concentrated chlorine gas stops to lend assistance, the terrorists hijack the truck.*

0930: *Subsequently, an off-base power substation that feeds the power grid on a Marine Corps base is hit by what appears to be a runaway dump truck. The crash appears to be an accident, and electrical service to many areas both on and off the base is disrupted.*

0940: *Military police officers are dispatched to deal with inoperable traffic signals and other minor problems on base, while local police deal with the same off base. Local firefighters and Emergency Medical Service (EMS) units are en route to the crash site. At the same time, base EMS and hospital staff begin to set up precautions for personnel affected by the intense August heat.*

1015: *The hijacked tanker truck, approaching the base at high speed, crashes and explodes just outside the fence line in an area that is very close to both on- and off-base housing, immediately releasing the toxic chlorine gas.*

1020: *A large cloud of toxic chlorine gas has begun to move into both on-base and off-base housing areas. The cloud of chlorine gas initially results in throat, eye, and nasal irritation. Traffic problems caused by the power outage have affected the ability of the base's first responders to quickly arrive at the scene and assess the situation.*

1025: *Small children and the elderly in the affected areas are the first to show severe signs of poisoning from the toxic gas. Several deaths have occurred and numerous people have become seriously ill from the gas.*

1040: *The toxic cloud of chlorine gas is spread by the wind, moving over significant portions of the base, including the base hospital, further depleting vital medical treatment and transportation resources. First response efforts are slowed due to the need for chemical suits and self-contained breathing apparatuses. While rendering aid to victims, the chlorine gas quickly overcomes those first responders who arrived without proper protection. Help from local firefighter, Hazardous Material (HAZMAT), and EMS units is not forthcoming, as they are dealing with the corresponding civilian casualties.*



Introduction

In our efforts to meet the challenges of constantly evolving threats associated with both conventional and asymmetric warfare, of grave concern to our government, military, and public alike is the growing threat posed by Chemical, Biological, Radiological, Nuclear, and High-Yield Explosive (CBRNE) weapons. This threat is magnified when such weapons are available to or in the hands of individual terrorists or terrorist groups. Recent terrorist attacks within the United States have exposed vulnerabilities in our ability to protect our personnel and mission essential assets and infrastructures from chemical, biological, radiological, or nuclear attack. While the Marine Corps has developed comprehensive force protection doctrine to deal with high-yield explosive incidents and scenarios, we must more fully address these other potential threats as well.

“The question facing us is this: What is the responsible course of action for our country, with our history, our tradition? Do we believe it is our responsibility to wait for a chemical or biological or even a nuclear September 11th, or is it the responsibility of free people to take steps to deal with the threat before we are attacked?”

**U.S. Secretary of Defense Donald H. Rumsfeld,
Testimony before the Senate Armed Services Committee,
September 19, 2002**

The overarching concern in establishing a sound installation CBRNE preparedness capability is force protection. The traditional approach to addressing CBRNE hazards on the battlefield must be adapted to address the very same hazards in a peacetime setting. Providing an



adequate installation CBRNE preparedness capability will require new tactical measures in support of our overall strategy for force protection and Critical Infrastructure Protection (CIP), which is to ensure the continued availability of critical assets and personnel necessary to accomplish our missions

We must foster and develop higher levels of cooperation, synergy, and mutual aid initiatives with our sister services, and with federal, state, and local governments that support and are inextricably linked to the support of our installations and infrastructures. This campaign plan is designed to identify the broad scope and nature of the effort required in establishing an installation CBRNE preparedness capability and to map out future goals, objectives, and initiatives required to achieve such a capability.

Plans, Policies, and Operations (PP&O), Headquarters, Marine Corps (HQMC), the Marine Corps advocate for force protection, will team with Installations and Logistics (I&L), HQMC, the Marine Corps advocate for the development, maintenance, and sustainment of our bases and installations. We will jointly operate as integral partners in the mission to define, develop, and implement appropriate installation CBRNE preparedness capabilities. Working together, we will meet the challenges presented by this ever-emerging form of warfare in the finest traditions of the Marine Corps.

E.R. Bedard
Lieutenant General
Marine Corps



Richard L. Kelly
Lieutenant General
Marine Corps



Installation CBRNE Preparedness Overview

Mission Statement

It is the mission of the Marine Corps to protect personnel on our installations and bases from CBRNE attacks, to respond to such attacks with trained and equipped emergency responders, to ensure our installations are able to continue critical operations that support the warfighting mission during an attack, and to resume all other essential operations after an attack. Additionally, protection from CBRNE events, to include the provision of appropriate procedures, training, and equipment, shall be extended beyond military personnel. This protection shall encompass all personnel who live or work on our installations and bases, including family members, DoD civilians and contractors, and host nation and third country nationals.

Our mission includes developing close working partnerships with the federal, state, local, and DoD CBRNE community of interest. We shall leverage those partnerships, along with the utilization of cutting edge technology and highly trained and equipped personnel, to field the capability to deter CBRNE attacks, and should one occur, to detect, warn, and mitigate the effects of such an attack.

PP&O, Security Division (PS), HQMC shall serve as the central authority for the coordination, development, articulation, and execution of Marine Corps policies and program management pertaining to installation CBRNE preparedness.



DoD Policy Guidance

Marine Corps efforts to provide a sound installation CBRNE preparedness capability are driven by the Deputy Secretary of Defense (DepSecDef) memorandum dated September 5, 2002, which identifies the following policy:

“It is the policy of the Department to protect personnel on military installations and DoD owned or leased facilities from CBRNE attacks, to respond to these attacks with trained and equipped emergency responders, and to insure installations are able to continue critical operations during an attack and to resume essential operations after an attack.”

KEY OBJECTIVES SUPPORTING INSTALLATION CBRNE DEFENSE

Personnel. For personnel deemed essential to the performance of critical military functions (whether military, civilian, contractor, host nation personnel, or third country nationals), the objective is to provide the appropriate level of protection to support mission continuity. For all other persons, the objective is to provide protection or procedures necessary to safely survive an incident.

Installations Preparedness. The objective is to develop CBRNE detection and response capabilities, giving priority to those installations deemed critical to the execution of war plans.

DepSecDef Memo dated September 5, 2002



CIP Event Cycle

The Role of Critical Infrastructure Protection (CIP)

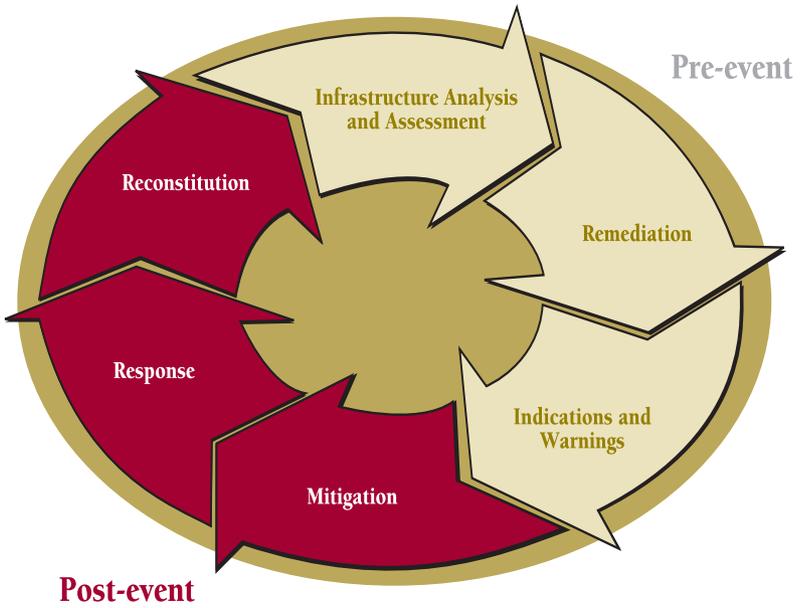
In determining how the Marine Corps will achieve an installation CBRNE preparedness capability, efforts in this area must be viewed as being inextricably linked to force protection and our evolving CIP program efforts. The CIP program provides a ready and relevant framework in which to assess, analyze, and implement appropriate CBRNE preparedness capabilities and procedures.

As with our CIP program, installation CBRNE preparedness programs and initiatives will be planned and executed from an operational perspective with one, overarching goal in mind – mission assurance.

The infrastructure analysis and assessment phase is the foundation for determining the vulnerabilities of bases to CBRNE attacks. Such analysis and assessments also provide a roadmap to potential remediation activities. Indications and warnings will play a significant role in CBRNE preparedness, with an emphasis on technology to provide constant monitoring, detection, and real-time situational awareness to installations and first responder communities.



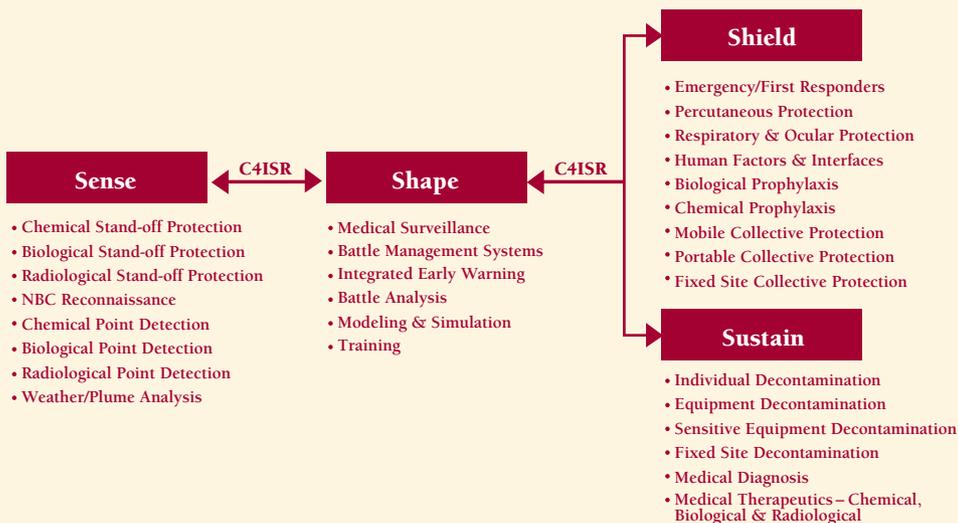
CIP EVENT CYCLE



Concept of Operations: *Sense, Shape, Shield, & Sustain*

In conjunction with the DoD and the DoN, the Marine Corps will establish and implement a concept of operations that will focus on CBRNE preparedness capabilities that can be developed and implemented at installations and facilities “building on previously established Anti-Terrorism/Force Protection (AT/FP) plans, vulnerability assessments, and natural disaster plans.” (CJCS draft guidance, SJS 02-05659/01). Additionally, we will support new technology initiatives that will provide state-of-the-art monitoring, detection, and situational awareness capabilities.

The installation CBRNE preparedness operational framework that will be implemented at installations and facilities can be generally represented as follows:

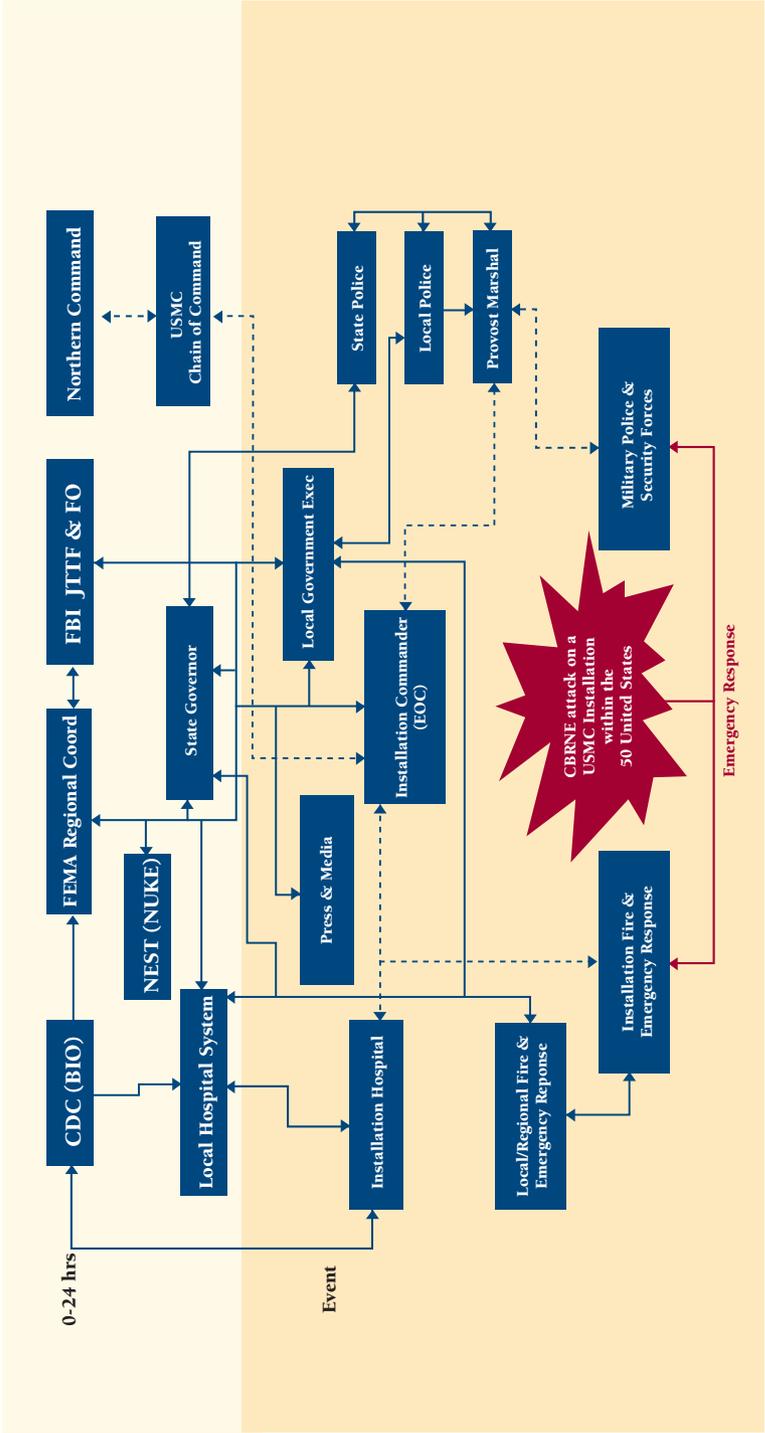


CBRNE Operational Framework Definitions:

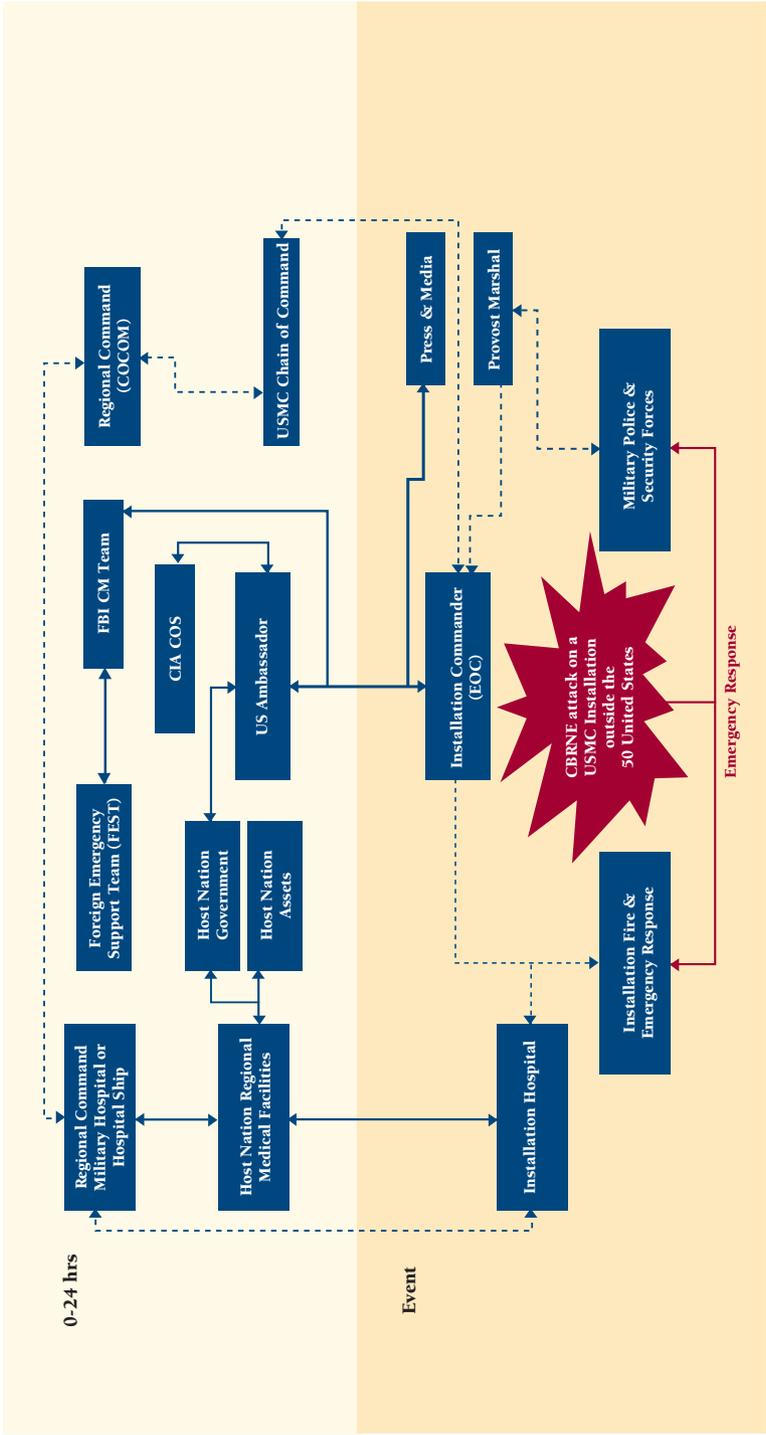
- **Sense:** Provides and implements a continuous, real-time capability to assess the current CBRNE situation by detecting and identifying CBRNE hazards in air, in water, and on land to personnel, equipment, and facilities as well as the physical state of those hazards (solid, liquid, and/or gaseous). This element includes the capability to diagnose, quantify, and sample CBRNE hazards.
- **Shape:** Provides the capability to characterize the CBRNE hazard to the joint force commander through manual and automatic collection and assimilation of CBRNE information from a variety of sources in near real-time. This allows the commander to direct personnel to take action and provides actual and potential impacts of CBRNE hazards.
- **Shield:** Provides the capability to the joint force to maintain a high operating tempo while preventing or minimizing casualties under CBRNE hazard conditions by reducing the threat, reducing operational vulnerability, and avoiding contamination. Further shielding is provided by physical protection and medical pre-treatment.
- **Sustain:** Recognizes that, despite avoidance efforts, forces may become contaminated and may have to operate in a contaminated environment. Decontamination, collective protection, and medical intervention enable the quick restoration of combat power, enable the recovery of essential functions that are free from the effects of CBRNE hazards, and facilitate the return to pre-incident operational capability.

*CJCS Draft Guidance,
SJS 02-05659/01*

CBRNE Coordination Matrix–Within the 50 United States



CBRNE Coordination Matrix—Outside the 50 United States





Installation CBRNE Preparedness Strategic Concepts, Issues, and Initiatives

Develop, Coordinate, and Integrate CBRNE Policy, Program & Technology Requirements

To effectively develop and implement an installation CBRNE preparedness capability that will meet both present and future needs, while taking into account the finite resources and funding that can be applied to this task, action must be undertaken both on a strategic and operational level.

Strategically, the Marine Corps must coordinate and integrate policy and program level activities with respect to the development and implementation of installation CBRNE preparedness capabilities and requirements. While the Marine Corps will operate within the parameters of DoD policy and guidance, it is within the Marine Corps itself that the greatest change can be effected, resulting in the most significant impacts on how installation CBRNE preparedness capabilities can be realized.

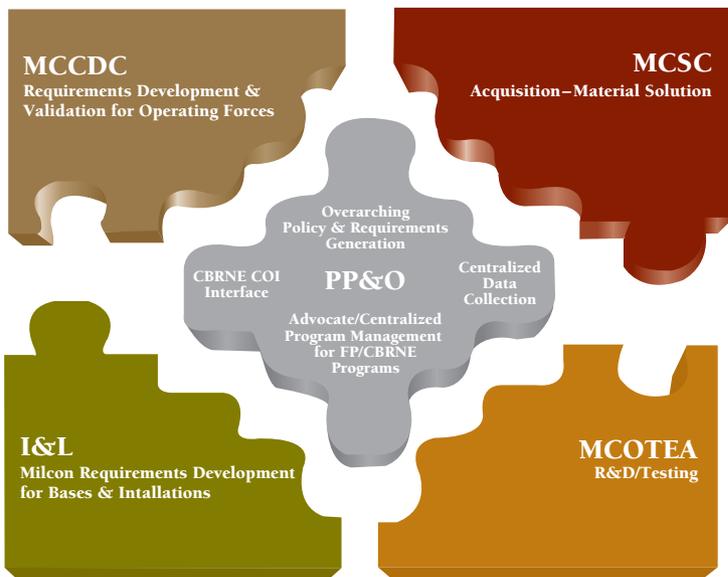
Overarching policy and program coordination is not enough. We must also follow a course of action that focuses on our installations, bases, and facilities individually. Within the general framework of policy and program requirements, we must tailor the implementation of CBRNE preparedness capabilities to the separate and identifiable needs of each installation, base, and facility. We must determine priorities and levels of protection based on each installation's contributions to mission assurance and the execution of war plans.

Within this campaign plan, we will examine what is required of the Marine Corps, both strategically and operationally, if we are to achieve an operational CBRNE preparedness capability that provides an adequate level of protection to our Marines and to the equipment and infrastructure they rely upon to accomplish their missions.

Strategic Coordination and Integration of CBRNE Policy and Program Level Activities

The Deputy Commandant (DC), PP&O has overall responsibility for the development of policy and guidance with respect to CBRNE preparedness within the Marine Corps. The DC, PP&O will be the focal point and advocate for all CBRNE policy, integration, and coordination issues within the Marine Corps.

The need for coordination and integration of effort between policy development (PP&O), maintenance and sustainment of our installations (I&L), specific requirement generation & validation (Marine Corps Combat Development Command (MCCDC)), testing (Marine Corps Operational Test & Evaluation Activity (MCOTEA)), and acquisition (Marine Corps Systems Command (MCSC)), is more critical now than ever before.



We must work together to eliminate redundant programs and activities. Where feasible, we must seek to integrate installation CBRNE defense technologies that are capable of achieving a unified, multi-layer defense capability. Such capabilities must include integrated Command and Control (C2) systems and a common operating picture that will provide increased situational awareness, and thus the timely flow of useful information.

The Way Ahead

Policy and Program Coordination and Integration Tasks

- Establish an operational framework that allows HQMC, PP&O to fulfill the role of advocate and centralized program manager for first responder and CBRNE preparedness strategy, policy, and program requirements.
- Develop an overarching Concept of Operations (ConOps) to address the development and implementation of installation CBRNE preparedness and response capabilities.
- Clearly define CBRNE missions and objectives for all supporting activities at the policy and program level.
- Coordinate with combatant commanders and MCCDC to support CBRNE requirements development and validation through the development of policy guidance regarding the implementation of CBRNE requirements.
- Develop a centralized data collection system within PP&O for CBRNE-related programs, initiatives, POCs, and funding submissions, leveraging our efforts in establishing a CIP Relational Database Management System (RDMS).
- Develop policy addressing the coordination, integration, and reporting of CBRNE related missions, programs, and activities to PP&O's centralized data collection system.

Implementation of CBRNE Preparedness Requirements, Capabilities, and Programs to Installations, Bases, and Facilities

Overview

A sound installation CBRNE preparedness program involves the implementation, integration, and coordination of multiple tasks and requirements. The nature and scope of the necessary tasks and requirements will depend primarily upon the size and unique characteristics associated with each installation, base, and facility as well as each location's contribution to the execution of critical military functions in support of one or more operations plans. Installations, bases, and facilities are classified as follows:

Class I – Large/Critical Installations. Installations with a population of greater than 15,000 personnel, designated by a Service or Combatant Command because of criticality of mission, or designated as critical through the DoD CIP program.

Class II – Emergency Response Installations. Installations with an emergency response capability and populations below 15,000 personnel but more than 2,000 personnel. Class II does not contain installations designated as critical through the DoD CIP program.

Class III – Non-Emergency Response Installations. Installations with populations below 15,000 personnel but more than 2,000 personnel that do not possess an emergency response capability (the installation requires support from external federal, state, or local emergency responders). Class III does not contain installations or facilities designated as critical through the DoD CIP program.

Class IV – Smaller Installations or Facilities. Installations without an emergency response capability and populations of less than 2,000 personnel. Class IV does not contain installations or facilities designated as critical through the DoD CIP program.

*CBRNE Defense Preparedness and Defense Standards
(DoD Instruction 2000.xx, June 2003 (Draft))*

Scope of Installation Response Capabilities.

The Marine Corps' efforts to develop comprehensive CBRNE protection and response capabilities for installations and bases was initially modeled after the criteria and standards set out by the Office of Justice Programs (OJP), Office for State and Local Domestic Preparedness Support. Inasmuch as the participation and cooperation of our state and local partners will always be crucial in providing an effective CBRNE preparedness and response capability, the OJP program standards provided a solid starting foundation to begin building our capabilities.

DoD criteria and standards for installation CBRNE preparedness and response capabilities are currently in a state of development. The Marine Corps will adapt to new and emerging CBRNE preparedness and capabilities requirements, folding those requirements into the existing foundation that has been forged.

In determining the priority of installations for receiving CBRNE preparedness and defense equipment and training, the level of equipment and training, and thus response capability, must also be determined based on the class of installation. Consequently, the Marine Corps will establish and implement the following four levels of response capabilities for installations:

Level 1: A basic capability package has been implemented by all installation classes, which includes the following:

- No direct sensor capability is required. The installation relies on medical surveillance information for detection/identification of CBRNE hazards not readily apparent.
- Installation command centers receive HAZMAT software packages and link into civil emergency management centers.
- Protection for civilians involves development of evacuation plans and mass decontamination using firefighting equipment.
- Installation emergency response teams receive increased capabilities to respond to CBRNE hazards, including level A suits, detection equipment, and medical and decontamination supplies for the team (not the installation).

- Installations have no consequence management capability other than relying on federal/state/local response from outside the installation.

Level 2: A supplemental capability package will be implemented by installation classes I-IV in addition to Level 1 capabilities:

- No direct sensor capability outside of high-value assets (e.g., command centers and living areas) is provided.
- CAMs, VDR-2 radiacs, and M8/M9/M256A1 kits are provided to AT/FP personnel guarding installation entrances/exits and high-value assets.
- Medical centers will be networked into a national medical surveillance system.
- DoD emergency/essential civilians/military receive military-level protective ensembles.
- Medical centers receive PCR-type medical diagnosis devices.

Level 3: An intermediate capability package will be implemented by installation classes I-III in addition to Level 2 capabilities:

- Installations develop and implement a mass-alert system.
- Personnel not executing emergency/essential missions receive shelter-in-place kits for residences and/or offices.
- An organic HAZMAT/CBRNE response team is stood-up.
- Installation medical clinics and hospitals receive decontamination showers for handling incoming exposed personnel.
- Medical laboratory capability is increased to develop surveillance and diagnostic capability.

Level 4: A full capability package will be implemented by installation classes I-II in addition to Level 3 capabilities:

- Installations consider the procurement and employment of standoff chemical detectors and NBC recon vehicles for evaluating large areas outside of protected critical assets.
- Installations install sensor networks connecting a number of automated point chemical and biological detectors and air samplers.
- All personnel, including those not executing emergency/essential missions, receive emergency masks.
- Installation medical clinics and hospitals stockpile medical countermeasures; installation response teams stockpile operational decontamination applicators and materials to continue restoration of installation functions.

Categories of Personnel Provided CBRNE Protection

The Marine Corps shall provide for the protection of personnel on its installations, bases, and facilities from CBRNE attacks. Specifically, procedures and guidance shall be established to protect the following categories of personnel:

Category 1: Emergency-essential U.S. military personnel, DoD civilians, and contractor personnel who perform critical essential services.

Category 2: Other U.S. national personnel, including U.S. military family members living on- and off-base; non-emergency essential U.S. military personnel, DoD civilian employees, and other persons covered by DoDI 1400.32; DoD contractor employees other than those performing essential DoD contractor services; and employees of other U.S. government agencies.



Category 3: Other personnel supporting U.S. military operations, including employees of DoD or DoD contractors not included in categories 1 or 2; foreign military personnel employed by the host nation government or by contractors of host nation governments.

Category 4: Allied/coalition nation personnel, including host nation and third country personnel the U.S. may assist pursuant to an international agreement or as directed by the Secretary of Defense.

Category 5: Emergency Responders to include firefighters, law enforcement/security personnel, emergency medical technicians, emergency management and operations personnel, Explosive Ordnance Device (EOD) personnel, physicians, nurses, medical treatment providers at medical treatment facilities, disaster preparedness officers, public health officers, industrial hygienists, and mortuary affairs personnel.

(CJCS Draft Guidance – Joint Concept of Employment for CBRNE Defense of US Military Installations)



Installation CBRNE Preparedness Operational Concepts, Issues, and Initiatives

Military–Civilian Task Force for Emergency Response (MCTFER)

Perhaps the most crucial aspect in developing an adequate emergency response capability to a CBRNE incident is the need to form an active partnership between the installation and the surrounding civilian community.

We must recognize that should a CBRNE incident occur, whether within or outside the fence line, the consequences of such an event would effect military personnel and civilians alike. It is to our mutual benefit to develop a pre-planned course of mutual aid for emergency response during these critical times.

Developing such an active partnership will require hard work from our Marines and civilians alike. We must establish a range of relationships from the local jurisdictions surrounding an installation to the federal level agencies that would play a significant role in responding to a CBRNE event.

The nature and scope of such partnerships will vary greatly, depending on such factors as the size of the base and its

Sample MCTFER Mission Statements

- To develop a synergistic relationship in the area of emergency response services among Marine Corps installations and bases and surrounding federal, state, and local civilian authorities.
- To plan, develop, and execute inter-operative mutual aid agreements among all parties for the benefit of the military-civilian community.

emergency response resources, the emergency response resources of the surrounding local and state communities, and the geographic distance between military and civilian resources.

In forming a MCTFER, the objective is not to duplicate emergency response capabilities, whether equipment or personnel. Rather, the creation of a MCTFER should result in complementary capability sets to address emergency response scenarios.

An effective MCTFER requires the sharing of information among all participants on a continuous basis. Public affairs and communications are key in developing community support, cooperation, and trust between all the participants. Community support and trust can also be gained, in large part, by including MCTFER civilian participants in CBRNE tabletop and field exercises.

MCTFER Development, Planning, and Weapons of Mass Destruction (WMD) Exercises will typically:

- Reveal strengths and weaknesses in CBRNE emergency/first response planning and execution.
- Lead to the development or modification of military/civilian response protocols and concepts of operations.
- Result in the need for expanded and continuous first responder training.
- Facilitate and coordinate the use of civilian medical surveillance programs, as well as veterinarian medical surveillance.
- Identify joint planning issues relating to mass decontamination and quarantine scenarios.

The Way Ahead

MCTFER Tasks

- Regarding emergency response services, develop policy guidance and best practices to assist installation commanders in the development of synergistic relationships among Marine Corps installations and with surrounding federal, state, and local civilian authorities utilizing the framework of a MCTFER-like organization.
- Develop policy guidance and best practices with respect to planning, developing, and executing mutual aid agreements among all parties for the benefit of the military-civilian community.

Emergency Responders

DoD Instruction 2000.18 requires the “...establishment of a CBRNE preparedness program for emergency responders at all DoD installations. DoD installation emergency responders must be prepared to respond to the effects of a CBRNE incident to preserve life, prevent human suffering, mitigate the incident, and protect critical assets and infrastructure.”

DoD Instruction 2000.18 requires the Marine Corps to structure its emergency response capabilities to include the following functional areas: C2 communications; law enforcement/security; fire and hazardous material, atmospheric monitoring and detection; casualty extraction; decontamination; health and medical response, to include medical surveillance and medical management; as well as EOD operations and mortuary affairs.

The Marine Corps, while providing all installations with a minimum of Level 2 equipment, will provide its emergency responders with training sufficient to meet Level 3 response requirements. The Marine Corps has completed an initial WMD first/emergency response study that assessed the current state of our response capabilities and identified areas that must be targeted for improvement.

The Way Ahead

Emergency Responders Tasks

- Implement policy that all Marine Corps installations' WMD response capabilities must include Level 2 equipment and Level 3 training.
- Establish a permanent Nuclear Biological Chemical (NBC) officer billet at each installation to provide CBRNE expertise lacking in AT/FP installation billets.
- Support the development and implementation of a fully interoperable capability for first responder/emergency responder communications equipment.
- Ensure that health and medical services develop CBRNE response planning and procedures, including the provision of pre-hospitalization emergency response capabilities such as triage, treatment, and transport.
- Develop and install mass warning or notification systems.
- Provide guidance to ensure that, in addition to identifying state and local assets that could provide assistance, installations also identify available stockpiles and evacuation assets in addition to establishing procedures to manage supply routes or materiel distribution during an incident.



Emergency Responders Tasks (cont.)

- Ensure that installations address mass care planning, involving sheltering, feeding, or otherwise caring for victims or evacuees following a CBRNE incident.
- Ensure that installations address Public Works requirements for WMD incidents. Installations must address pre-incident requirements, estimated power and water requirements supporting on-site decontamination, procedures to control decontamination run-off, and operational procedures for providing back-up power on-site, removing debris, and deploying incident response and damage assessment teams.
- Ensure that firefighters address CBRNE functions and tasks more fully, including the development of decontamination capabilities. Reassess appropriate staffing levels for firefighters in light of imposing WMD/first responder duties in addition to traditional day-to-day firefighting operations.

Chemical, Biological, Radiological and Nuclear Detection Equipment & Test Concepts

Joint Service Installation Pilot Project (JSIPP)

Initiated by the DoD, the purpose of JSIPP is to provide equipment and training to enhance detection, protection, and emergency response capabilities to Chemical/Biological (CB) incidents occurring on or near DoD installations and facilities.

JSIPP has two focuses. The first focus involves the procurement and installation of CB detection equipment and software designed to provide the installation commander increased monitoring and detection capability as well as real-time situational awareness supporting decision-making during a CB incident.

The second focus is on initially equipping and training emergency/ first responders to adequately respond to CBRNE incidents as well as to support consequence management procedures and tasks subsequent to CBRNE incidents.

Marine Corps Base (MCB) Camp Lejeune is participating in this pilot project. The lessons learned and best practices from this pilot project will pave the way for future initiatives for CB monitoring and detection as well as enhanced emergency responder capabilities and equipment.

Chemical/Biological Training and Equipment

The policy of the Marine Corps will be to ensure that all Marine Corps installations are provided, at a minimum, Level 2 CB detection and protective equipment as well as training for a Level 3 response. Those facilities that are identified as providing direct support to the warfighter and are identified as critical to war plan mission assurance will receive Level 3 and Level 4 equipment capabilities as appropriate.



Unconventional Nuclear Warfare Defense (UNWD)

While JSIPP addresses the CB side of installation preparedness, the Unconventional Nuclear Warfare Defense (UNWD) test bed project addresses the radiological/nuclear side of installation preparedness.

U.S. military installations are among the most attractive targets for terrorists, and the possible use of radiological dispersal devices, or “dirty bombs”, presents a very real threat that must be addressed. The UNWD test bed project will develop, deploy, test, and demonstrate radiological/nuclear detection and protection systems at four U.S. military installations. MCB Camp Lejeune is the Marine Corps representative for the UNWD Test Bed Project.

The UNWD program will deploy and test an integrated sensor network, utilizing a layered detection concept. This concept is designed to detect in-transit radiological signatures through a number of perimeters or layers as the device approaches the installation. While the area of the perimeter sensor layers can vary, the perimeter generally encompasses a sufficient area to allow adequate response time to intercept the radiological device prior to reaching the installation.

Critical Tasks

Critical to the UNWD project, as well as the JSIPP project, is the development and use of a real-time C2 system that will provide the EOC with the ability to immediately assess and analyze a sensor hit, and initiate the appropriate response activity. Development of response protocols and concept of operations are therefore critical to properly framing the type and level of response to be undertaken, and to minimize the time it takes to initiate the appropriate level of response.



We must coordinate these efforts with the DoD community of interest and the Department of Homeland Security. It is only through the coordinated efforts and resources of all that we will be able to put in place these kinds of technological defense capabilities.

Test programs such as JSIPP and UNWD, which utilize technology to sense, detect, and report contact with or the presence of a CBRNE agent, should prove invaluable in our efforts to protect our forces from exposure to such agents.

The importance of such technology is that it will enable the Marine Corps and civilians alike to mount a rapid and timely response to prevent or contain exposure to such agents. Concurrent with the development of these technologies, important policy needs to be formulated.



The Way Ahead

JSIPP & UNWD Test Program Tasks

- Integrate detection, warning and situational awareness technologies such as JSIPP, UNWD, and Area Security Operations Command and Control (ASOCC) into a single system that will provide a real-time, common operating picture with respect to AT/FP posture, threat monitoring and detection, automated reporting, and decision support.
- Develop a ConOps for each installation in addition to protocols for response activities and countermeasures subsequent to the detection and warning of a CBRNE agent.
- Provide a functional, integrated system that can easily be adapted to any installation.
- Issue guidance as to the scope of UNWD and JSIPP protection to be provided each installation, i.e., none to 360 degree protection. We must also consider extending the sensor networks from installations to vital deployment routes and staging areas for power projection.
- Expand JSIPP/UNWD training and exercise requirements to include participation by civilian counterparts.
- Identify requirements and program resources to sustain future maintenance, training, and personnel support for UNWD/JSIPP program efforts.

Equipment Interoperability and Standardization

To effectively respond to CBRNE incidents while maximizing finite resources, it is imperative that both military and civilian communities' emergency response assets have a significant degree of interoperability and standardization.

The need for standardization and interoperability of response equipment covers a broad spectrum, including:

- Interoperable communications and information systems
- Personal protective equipment
- Operational equipment
- Collective protection equipment
- Decontamination equipment
- Medical equipment

Interagency Board (IAB) for Equipment Standardization and Interoperability

In order to ensure standardization and interoperability throughout the response community, the DoD and the Department of Justice (DoJ) jointly chair an annual board consisting of interagency officials from various local, state, and federal government agencies to establish, maintain, and update a national Standardized Equipment List (SEL) for use by the interagency community in preparing for and responding to WMD terrorism.

Standardization of equipment has important ramifications for the warfighter, especially within the Marine Corps. Different bases have different equipment, creating problems for the troops that deploy from base to base. Training for the use of one particular equipment suite may not translate into proficiency with a different equipment suite, even though both equipment suites have the same general purpose and function.

While standardization of equipment is becoming more of a reality, defining what equipment shall be issued to any specific installation and base needs to be assessed in a different manner – identical equipment suites for every base do not sufficiently address installation CBRNE preparedness requirements. We must look to tailoring equipment suites for each installation or similar component, in order to create a truly synergistic response capability with civilian emergency responders.

The Way Ahead

Equipment Interoperability & Standardization Tasks

- Tailor acquisition strategies for CBRNE equipment to incorporate principles of interoperability and standardization. Develop acquisition strategies to be full life-cycle, and account for initial training and sustainment requirements as well as future O&M requirements.
- Reduce the time required by the DoD acquisition process between R&D efforts and the fielding of the latest technology and equipment at our bases and installations.
- Procure and focus on the equipment (i.e., green gear) needed to complement, not duplicate, civilian first and emergency responders.
- Develop policy and guidance defining equipment level standards. Define the level of protection required for each set or class of circumstances, bases, or personnel.
- Refine policy governing CBRNE equipment purchases. Ensure that CBRNE equipment is purchased in separate lots and at separate times to ensure shelf life is staggered and doesn't expire at the same time.
- Investigate the greater use of COTS equipment in obtaining the latest technology that provides the most effective CBRNE preparedness capabilities.

While the Marine Corps is working toward the standardization of equipment, a significant gap still remains in the areas of interoperable communications with our civilian emergency response counterparts. The Marine Corps must articulate the scope of interoperability required, and then support rapid implementation of those requirements. Development of such tactical systems as the Land Mobile Radio (LMR) system as well as real-time incident monitoring, warning, and mass notification systems must be fashioned with interoperability as the baseline requirement.

Acquisition strategies must be modified if we are to meet current and future requirements for CBRNE preparedness and response equipment. We must reduce the time required by the DoD acquisition process between R&D efforts and the fielding of the latest technology and equipment at our bases and installations. Full life-cycle R&D efforts result in too much delay and impede efforts to field needed equipment in a timely manner—it often takes 5 to 7 years to field a required technology or equipment suite while remaining compliant with the current process.

The end result of this acquisition process is the inability to keep up with, and utilize in a timely fashion, emerging CBRNE technologies. In emphasizing the use of COTS equipment, we can utilize the latest stage R&D on the commercial side and be relatively assured of having the latest technology. This strategy should produce better equipment, procured at a lower cost and fielded at a faster pace than the current process.

Manpower, Training and Education

Initiatives such as JSIPP, UNWD, or even standardizing equipment needed to adequately respond to CBRNE incidents will not, in and of themselves, result in a sufficient installation CBRNE preparedness operational capability.

To make use of the latest technology and equipment requires an investment in properly trained and educated Marines and supporting staff. CBRNE knowledge and expertise is simply not adequate within existing AT/FP personnel, who are responsible for CBRNE measures at our installations and bases. NBC officers, who have expertise, seldom interact and coordinate with base AT/FP personnel on a routine basis and are often unavailable as they deploy with Marine Forces. Conversely, NBC officers are not trained to focus on base protection aspects and capabilities as are their AT/FP counterparts.

Moreover, given the advent of increased requirements for CBRNE installation preparedness and protection of personnel, staffing levels to support these emerging requirements must be reassessed and defined, along with funding for additional staffing, training, and education.

The Way Ahead

Manpower, Training & Educations Tasks:

- Provide installations a full-time, permanently assigned NBC/ CBRNE billet(s) to work within the base's AT/FP structure. Consider using civilians to ensure continuity of CBRNE expertise.
- Provide additional training to the NBC Military Occupational Specialty (MOS) position that will focus on providing knowledge of installation AT/FP measures, procedures, and response activities.
- Determine the staffing requirements necessary to establish a full-time CBRNE preparedness officer and to effectively implement CBRNE programs and initiatives such as JSIPP and UNWD, and identify the program funding and resources necessary to support the required staffing levels.
- Define and implement training programs at MOS schools to meet the requirements for operations and maintenance of advanced CBRNE technologies.
- Include both military and civilian personnel supporting our CBRNE installation defense programs in training initiatives, including senior leadership.
- Integrate staffing for CBRNE installation defense within the existing AT/FP structure, and incorporate it into our overall CIP program.
- Identify and provide the resident NBC expertise required at TECOM to assist in the development of CBRNE training and education curricula.
- Cross-train firefighters, Naval Criminal Investigative Service (NCIS), and military police to allow for timely collection of evidence in hot zones.

Installation CBRNE Preparedness and the Medical Community

The medical community, military and civilian alike, have vital roles to play in developing a sound and effective installation CBRNE preparedness capability. The scope of the medical community's involvement ranges from medical surveillance and monitoring to detection of and treatment in response to a CBRNE incident.

There are significant issues that must be addressed with respect to the medical community's effective participation in any CBRNE preparedness program.



Medical Surveillance

While medical surveillance activities within the installation are important, it is medical surveillance by the civilian medical community that simultaneously represents an extremely important asset, and a difficult challenge to implement.

Policy guidance must be developed to assist the installation commander in developing a civilian medical surveillance capability.

The Way Ahead

Medical Surveillance Tasks

- Determine when to put medical surveillance into effect. Should such surveillance be continuous or initiated at certain force protection conditions only? Routine monitoring must be established prior to the occurrence of a crisis.
- Determine who should be included in medical surveillance (both military and civilian).

Medical Surveillance Tasks (cont.)

- Include the veterinarian medical community in surveillance activities. Currently, there is no significant effort to monitor veterinary medicine, particularly the treatment of horses, which are an excellent source for the presence of a number of biological indicators.
- Define or modify policy and/or legal requirements with regard to sharing medical information for governmental purposes. For example, civilian druggists have a ready database to monitor prescription spike activity, but legal constraints can inhibit the sharing of such information.

In coordinating emergency response resources with local civilian jurisdictions, whether through the formation of a MCTFER or similar working group, one of the most important liaisons to establish is with the medical and veterinarian community.

In establishing such a working relationship, priority should be given to establishing an effective communication system where two-way information flow can be distributed in a near real-time environment.



Medical Treatment and Protocols

Policy guidance relating to treatment protocols in a CBRNE environment needs to be reviewed and updated to address a number of difficult circumstances and scenarios.

The Way Ahead

Medical Treatment and Protocols Tasks

- Establish clear treatment protocols for medical diagnosis and treatment in a contaminated environment. For instance, when to treat a patient who would normally be a priority because of his injuries but who is also contaminated and his treatment might result in the contamination of doctors and others in the treatment area. How should this situation be handled?
- Develop guidance in identifying the effectiveness of various medicates in treating a biologic infection. Treatment protocols are needed in such areas as when to medicate, when to clean, and when to stop treatment to avoid further loss through contamination or spread of biological agents.
- In identifying treatment protocols and the effectiveness of various medicates, determine the potential side effects of such treatment. This is especially important with respect to treatment of our fighting forces and their continued availability for deployment, maneuver, and engagement after treatment.
- Ensure that installations develop procedures and medical protocols for identifying and determining priority treatment for essential personnel, both military and civilian, necessary to maintain critical functions and missions during a CBRNE incident.
- Develop emergency treatment protocols for dependents, civilian contractors, and host nation workers.

Medical Treatment and Protocols Tasks (cont.)

- Emphasize pre-incident treatment efforts, such as inoculations, rather than relying on less effective post-incident treatments.
- Address latent or chronic health issues that will arise from exposure to CBRNE hazards by working with appropriate state and federal agencies.

Quarantine Issues

Once a CBRNE incident has occurred, and an agent capable of spreading is suspected, every installation commander will be faced with a possible quarantine scenario. The installation commander must work closely with the military and civilian medical community and law enforcement officials in developing quarantine protocols and procedures. Guidance must be provided to installations to assist in the development of a ConOps for quarantine scenarios and procedures.

The Way Ahead

Medical Treatment and Protocols Tasks

- Define the scope of authority to impose quarantine. The authority of the commander to impose quarantine lies only within the fence line of the installation. Who will be let in, or out of, the gates? How long will the quarantine be imposed? How are military personnel and their families who are separated by the fence line to be handled?
- Establish rules regarding the use of force relating to quarantine scenarios. How will the commander enforce the quarantine that is ordered, especially in the face of likely scenarios such as military personnel trying to get to their families, or vice versa? The problem to be addressed is dealing with distressed people that want to leave, or enter, the installation.

Quarantine Tasks (cont.)

- How, and to what extent, should the military assist civilian authorities in supporting a quarantine scenario outside the fence line?
- Quarantine scenarios should be incorporated into WMD exercises to develop valid operational concepts and training.

Decontamination – Personnel & Equipment

Traditionally, the Marine Corps's ability to decontaminate was focused on protecting our deploying forces by providing the capability to perform immediate (Level 1) and operational (Level 2) decontamination.

The growing threat of CBRNE weapons in the hands of terrorists who would use them against our personnel and critical infrastructures within the borders of our nation must lead us to re-evaluate our ability to treat and decontaminate in the aftermath of the use of chemical, biological or radiological agents.

The Marine Corps will work within the DoD community of interest in developing and implementing appropriate levels of decontamination capabilities. Installations must consider their capabilities, taking into account the decontamination resources of local, state, and federal civilian counterparts.



With respect to decontamination of personnel, HQMC must address and issue guidance on a number of difficult issues.

The Way Ahead

Personnel Decontamination Tasks

- Issue policy and guidance to provide for a mass decontamination capability and procedures, either separately or in conjunction with U.S. Army decontamination capabilities.
- Define what constitutes acceptable or unacceptable levels of contamination in various circumstances (e.g., decontamination of triage patients before admission to medical facilities).
- Define procedures for handling contaminated personnel in need of medical treatment, especially where the presence of biological agents is suspected.
- Identify procedures for ensuring the safe care and handling of the contaminated remains of our personnel who have fallen victim to CBRNE agents.

When examining the issue of decontamination, it is important to remember that decontamination of Marines is not enough – Marines must continue to have access to equipment necessary to accomplish their missions.

Marine Corps focus must be on the ability to decontaminate weapons, ground vehicles, support equipment, aircraft, and a variety of other systems and infrastructures that support our warfighting missions. The reality is that the Marine Corps, along with all other services, cannot simply replace contaminated equipment with new equipment. Thus, to field an effective decontamination capability for equipment and materials used by Marines becomes essential.

With the increased threat of chemical and biological weapons being used in conjunction with asymmetric and indirect tactics, another important issue that must be addressed is the ready availability of CBRNE protective gear, equipment, and decontamination suites to our Marines who are in the process of mobilizing and deploying.



While our deploying forces do have immediate access to protective suits and gear, if there is a severe or prolonged contamination incident during mobilization and deployment, there would be a shortage of, or lack of accessibility to, change-over gear and more extensive decontamination equipment systems. Logistics planning for mobilization and deployment must take into account the necessity of rapidly providing more extensive decontamination gear and equipment suites throughout all critical points in the mobilization and deployment process.

The Way Ahead

Equipment Decontamination Tasks

- Develop additional policy and guidance pertaining to the decontamination of equipment and gear, specifically including guidelines for rapid distribution of decontamination systems during deployment.

Collective Protection

Another difficult question to address and resolve is to what extent can we collectively protect personnel and critical infrastructure from exposure to CBRNE agents?

Technology is certainly available to provide collective protection for any room with prior planning. These systems are available and portable but have limited use due to their size. Entire buildings cannot provide collective protection unless they are initially constructed with protective measures or substantially refurbished or outfitted at great cost.

In considering the collective protection issue, there is the need to balance the likelihood of CBRNE threat being carried out against a particular installation, the criticality of that installation to the execution of war plans, and the cost to implement collective protection.

However, collective protection efforts must be addressed and policy guidance issued for specific circumstances.

The Way Ahead

Collective Protection Tasks

- Determine whether or not certain portions of installations and bases should be provided collective protection, such as in critical C2 areas or nodes.
- Address the issue of providing collective protection of triage or medical/surgical treatment facilities. This is a particularly difficult task, as treatment cannot routinely be accomplished in an isolated, sealed environment.
- Identify collective protection requirements for our military dependents living on- and off-base.

Chemical Biological Incident Response Force (CBIRF): 4th Marine Expeditionary Brigade (MEB) (Antiterrorism)

When discussing the Marine Corps ability to provide comprehensive first response capabilities to a CBRNE incident, special note should be made of CBIRF and the 4th MEB. Created in 1996 per the Commandant of the Marine Corp's (CMC) planning guidance, the mission of CBIRF and the 4th MEB is:

“When directed, forward-deploy and/or respond to a credible threat of a chemical, biological, radiological, nuclear, or high yield explosive (CBRNE) incident in order to assist local, state, or federal agencies and designated COCOMS in the conduct of consequence management operations by providing capabilities for agent detection and identification; casualty search, rescue, and personnel decontamination; emergency medical care; and stabilization of contaminated personnel.”

Although CBIRF is an asset that could be used to assist installations in their response to a CBRNE incident, the mission and function of CBIRF is much broader and its capabilities are deemed to be a true national asset.

However, the Marine Corps should look to CBIRF as a CBRNE Center of Excellence for the continued development of CBRNE response doctrine, entry level MOS training for CBIRF skills, and best practices for developing installation operational response capabilities in the functional areas of:

- CBRNE reconnaissance (detection and identification)
- Casualty extraction
- Personnel decontamination
- Rescue services
- Medical services
- C4I and logistics support
- EOD



Reserve Components & Installation CBRNE Preparedness

Our Marine Corps reserve forces have always played a vital role in the defense of our nation. The contributions of our reserve forces continue to grow in scope and diversity, as with our active duty forces, to meet the challenges of constantly evolving threats associated with both conventional and asymmetric warfare.

Protection of our personnel and facilities in the Marine Corps Reserve against CBRNE attacks is no less a priority than with our active duty Marines and personnel. Moreover, the reserve forces have the potential capability of providing critical support in responding to CBRNE incidents.

If the Marine Corps is to make effective use of our reservists in responding to a CBRNE incident, we must clearly define such a policy.

The Way Ahead

Marine Corps Reserve Forces Tasks

- Stand-up emergency responder units within the reserve forces. This will require equipping and training selected units of the reserve forces for emergency responder duties.
- Issue guidance as to the scope of the term “installation” as it relates to reserve facilities. Define the CBRNE protective measures that must be afforded reserve facilities and personnel.
- Define the level of protection and response capabilities to be provided to those reserve facilities that do not have priority for CBRNE equipment due to their non-critical contribution to warfighting missions or operational plans.
- In Base Realignment And Closure (BRAC) deliberations, consider CBRNE capabilities that can be provided by reserve forces on a regional basis.

CBRNE/WMD Field Exercises and Tabletops

One key to an effective force protection program that provides an adequate defense and response capability to a CBRNE incident is sound installation planning, testing, and validation. From base AT/FP plans to MCTFER-like planning efforts with the local civilian emergency response community, testing and validation of such planning efforts must be accomplished through regularly scheduled training and exercises.

The goal of both field and tabletop exercises and training is to evaluate initial field level response to single or multiple mass casualty CBRNE terrorist incidents.

Exercise and training will often reveal critical deficiencies within installation or civilian planning efforts. Moreover, given the level of staff turnover within all key emergency response activities, continuous training is a necessity if we are to maintain a baseline level of capability and proficiency in responding to a CBRNE incident.

The Way Ahead

CBRNE/WMD Field Exercises and Tabletops Tasks

- Design training and exercises to test, at a minimum, both military and civilian activities normally associated with the initial response to a mass casualty CBRNE incident, such as:
 - Site characterization
 - Victim extraction
 - Treatment and decontamination
 - Agent identification
 - Site security and control
 - Render-safe procedures for devices/weapons
 - Crime scene/evidence collection procedures
 - C2 procedures
 - Military-Civilian coordination and communication

CBRNE/WMD Field Exercises and Tabletops Tasks (cont.)

- Incorporate one or more scenarios that simultaneously attack critical infrastructure or assets, such as vital communications systems, as part of each overall WMD exercise. We cannot assume that the sole purpose of a terrorist attack using WMD is confined only to inflicting casualties.

Programming Funding and Resources

Providing increased capabilities to defend our installations and protect our Marine Corps family requires an increase in funding and resources to support those activities. Given that there will always be limitations on the availability of funding and resources, we must strive to be efficient in the use of our resources.

We must coordinate and integrate CBRNE programs and technology initiatives where possible to avoid unnecessary duplication of manpower and equipment. We must reassess force protection planning and doctrine to identify changes in procedures that can be implemented with existing personnel that will provide additional measures of protection, and be just as effective as costlier alternatives.

To promote resource efficiency, and at the same time provide a structural framework supporting the policy of standardization of CBRNE equipment to the extent possible, all CBRNE requirements—from equipment to staffing to training—should be centrally managed at the HQMC level. Each installation will still play a vital role in this process, as the commander must determine and prioritize unfunded CBRNE requirements to be submitted to HQMC for review, validation, and funding.

Command Initiatives

HQMC shall act aggressively to implement a program for sound installation CBRNE preparedness and response capability. Although HQMC, PP&O serves as the CBRNE advocate, the diligence of each individual installation commander is necessary to ensure the success of CBRNE preparedness activities.

The Way Ahead

Command Initiatives

- Commanders at all levels must develop and implement a comprehensive CBRNE preparedness program for installations under their respective control.
- Commanders need to task the appropriate organizations under their command to gather, analyze, and disseminate installation CBRNE threat information, as appropriate.
- Commanders are responsible for developing a process, based on threat information and/or HQMC guidance, to coordinate and set installation CBRNE preparedness postures along with corresponding site-specific tasks, in conjunction with existing Force Protection Condition (FPCON) levels.
- Installation commanders must prepare effective CBRNE consequence management plans and actions to supplement installation incident emergency response measures, allowing response and recovery actions to continue.



Conclusion

The Marine Corps must, and will, adopt its force protection measures to meet the ever changing threats from those who would use chemical, biological, radiological or nuclear weapons against the people and infrastructures of our nation. We must develop higher levels of cooperation, synergies, and mutual aid initiatives not only with the other services, but also with federal, state and local governments that support and are inextricably linked to installation CBRNE preparedness and our operational capabilities.

Within the Marine Corps, we must coordinate programs and technologies upon which our CBRNE defensive capabilities rest, even to a degree that has not been heretofore achieved if we are to effectively maximize finite resources.

General Hagee's words ring truer now than they ever have at any time in the proud history of the Marine Corps:

“Throughout the varied conflicts of the twentieth century, the Marine Corps has demonstrated a true ability to adapt to the ever-changing face of battle. Today we face new threats and scarce resources; yet at the same time, we must shape the Corps for the challenges of a new century.”

**General Michael W. Hagee,
33rd Commandant of the Marine Corps Guidance**

The Marine Corps will be ready and able to accomplish its missions against the background of these new emerging threats and the ever-changing face of battle, both now and in the century to come.

