

# INSTALLATION COMMANDER'S HANDBOOK

*Initial Response to Chemical, Biological,  
Radiological, Nuclear and  
High-Yield Explosive Incidents  
on CONUS Installations*



**DEFENSE THREAT REDUCTION AGENCY  
AND THE  
USSTRATCOM CENTER FOR COMBATING WMD**

## **PURPOSE STATEMENT**

The following are suggested immediate actions (up to 8 hours) taken by an Installation Commander in the event of a chemical, biological, radiological, nuclear and/or high-yield explosive (CBRNE) terrorist/hostile incident on a **Department of Defense (DoD) installation in the Continental United States (CONUS)**.

For the purposes of standardization and consistency, it is general guidance for all Services, and is not meant to supersede any individual Service documents/guidance. It is understood that many installations already have specific CBRNE response/antiterrorism plans. This book is not meant to usurp these plans, but is instead general guidance for those installations that do not yet have plans.

Other DoD and national guidance CBRNE response documents should be considered firstly (please see reference list). This handbook outlines general actions, specifying procedures to be carried out by the Installation Commander and other response personnel in the case of each individual CBRNE event.

## **DISCLAIMER**

The information in this handbook should be used as basic guidance. Nothing in this instruction should be interpreted to subsume, replace, detract from, or conflict with, authorities and responsibilities of the Installation Commander, DoD, and/or Federal, State and local leadership specified by law or DoD guidance. At the scene of any CBRNE incident, circumstances vary and are unpredictable. Incidents may require only the most rudimentary application of the suggestions made in this document, but may also require extremely complex intervention procedures that are beyond the scope of this document.

For assistance or additional information on this handbook  
please contact:

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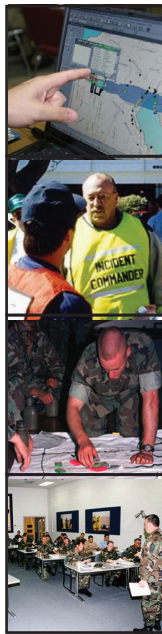


Domestic & Foreign  
Consequence  
Management  
Planning

CBRN &  
Consequence  
Management  
Training Exercises

Consequence  
Management  
Advisory Teams  
(CMAT)  
Deployable Assistance

Analysis of  
Real World &  
Exercise Observations



We *specialize* in  
planning, executing,  
and guiding  
Chemical, Biological,  
Radiological &  
Nuclear (CBRN)  
Consequence  
Management  
training & exercises

We *provide* on-scene  
technical advice  
and capabilities  
including  
hazard prediction  
modeling  
for Joint Task Force,  
Response Task Force  
and Global  
Combatant  
Commanders

Contact us at [CM@DTRA.MIL](mailto:CM@DTRA.MIL)

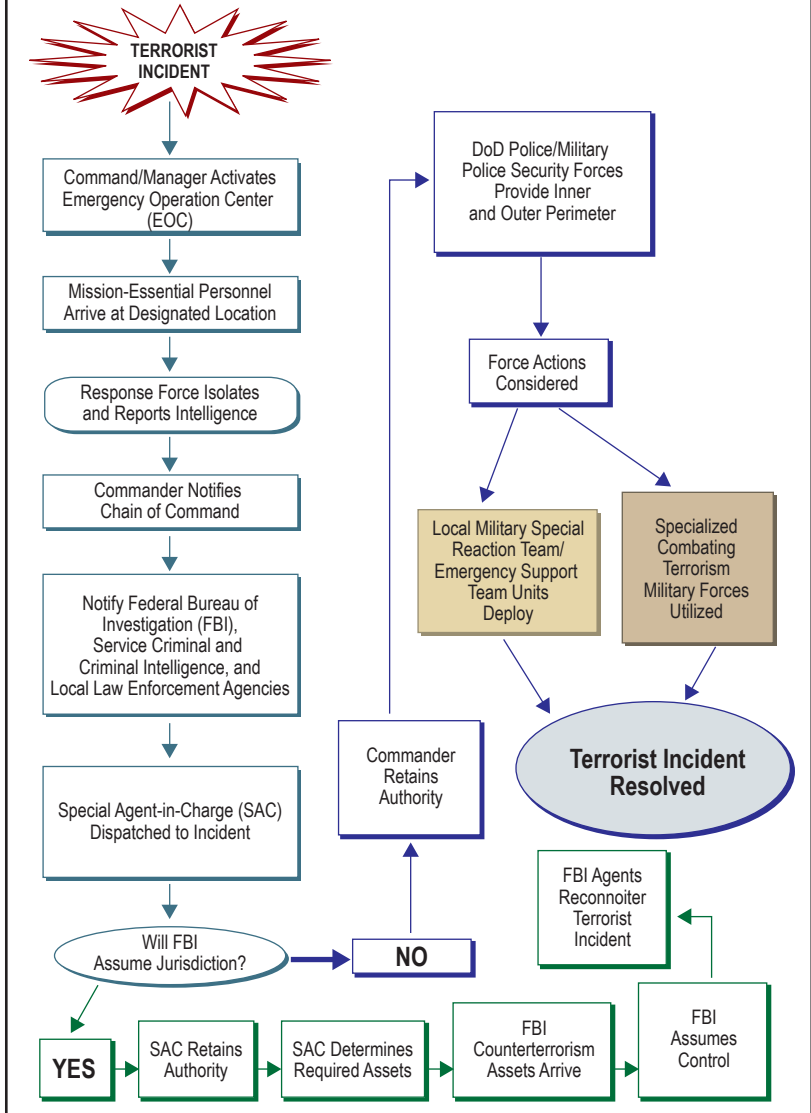
## **IMMEDIATE ACTIONS FOR ANY INCIDENT**

- ◆ Gain Situational Awareness
- ◆ Critical Mission Operations Protection
- ◆ Life-Saving and Mitigation Operations
- ◆ Notify Higher Headquarters
- ◆ Notify Installation Personnel
- ◆ Notify State and Local Jurisdictions
- ◆ Make a Public Announcement,  
(as necessary)

## **THINK ABOUT**

- ◆ Health and Safety
- ◆ Security
- ◆ Infrastructure / Evacuation
- ◆ Public Affairs
- ◆ Legal / Claims Issues
- ◆ Logistics
- ◆ Long-Term Impact

## DoD Management of a Terrorist Incident



## RESPONSE BASICS

### DEFINITION OF A CBRNE INCIDENT

(From Department of Defense Instruction 2000.18, Enclosure 2):

**The deliberate or inadvertant release of chemical, biological, radiological, nuclear or high-yield explosive (CBRNE) devices with potential to cause significant numbers of casualties and high levels of destruction.**

### INSTALLATION COMMANDER'S BASIC RESPONSIBILITIES

**DoD Installation Commanders have responsibility and authority for INITIAL RESPONSE, INITIAL CONTAINMENT, and NEUTRALIZATION of terrorist/hostile incidents occuring within their installation.**

### AUTHORITY AND JURISDICTION IN TERRORIST INCIDENT RESPONSES

#### **Incident Location**

DoD installation or vessel within the United States, its territories and possessions

#### **Initial Response**

DoD military and/or civilian security forces

#### **Containment of Incident**

Initially DoD military and/or civilian security forces, with transition to FBI or civilian law enforcement dependent on jurisdiction

#### **Incident Resolution**

DoD Security Organizations, Military Emergency Service Team/Special Reaction Team or FBI or other appropriate civilian law enforcement dependent on jurisdiction

#### **Incident Investigation (Coordinating Agency)**

FBI and DoD Criminal Investigative Task Force (CITF) for military commission crimes

#### **Prosecution (Coordinating Agency)**

Department of Justice (DOJ) and DoD Office of Military Commissions for prosecuting military commission pursuant to President's Military Order of November 13, 2001

## INSTALLATION COMMANDER'S BASIC RESPONSIBILITIES IN THE CASE OF A CBRNE INCIDENT ON THE INSTALLATION

### **INSTALLATION COMMANDERS SHOULD IMMEDIATELY:**

1. Activate the installation's initial response elements and local memorandums of understanding/memorandums of agreement (MOUs/MOAs). MOUs/MOAs must be utilized in order to make up for an installation's shortfalls and to detect, deter and respond to a CBRNE incident.
2. Initiate the DoD notification process.
3. Request resources to augment the installation's response capabilities and notify affected local personnel on what protective measures to take.
4. Assume overall initial authority. In accordance with (IAW) DoD O-2000.12, DoD Installation Commanders have responsibility and authority for initial response, containment and resolution of criminal incidents occurring within their installation. The FBI has coordinating agency responsibilities for investigation and prosecution of alleged violations of U.S. Code or investigating any incidents that an Installation Commander declares to be terrorist in nature that occur on DoD installations or within DoD facilities. Also, if needed, Commanders may ask the FBI for assistance if the FBI has superior tactical assets available, such as regional Special Weapons and Tactics (SWAT) teams or Hostage Response Teams (HRT). The Installation Commander, however, will at all times maintain command and control of the installation's military assets and resources.

**According to DoD reference (see page 53 for a complete listing), the National Response Framework (NRF) and the Department of Homeland Security (DHS) National Incident Management System (NIMS),** the initial responders to a CBRNE incident should immediately identify and report the nature of the situation, isolate the incident, and contain the situation. The Installation Commander (or the State/county health department in the case of a localized biological attack) must oversee these actions and activate the installation's Emergency Operations Center (EOC). Additionally, the Commander should notify specialized response forces, and immediately report the incident to the appropriate superior military command EOC, military investigative agency, FBI and/or civilian authorities. IAW the NIMS Incident Command System (ICS), Installation Commanders should send liaisons to the military EOC and State/local EOC (or Joint Field Office (JFO)) and FBI Joint Operations Center (JOC), as applicable) to maintain event cognizance and request support as required.

## INSTALLATION COMMANDER'S BASIC RESPONSIBILITIES IN THE CASE OF A CBRNE INCIDENT ON THE INSTALLATION

### THE FOLLOWING MUST BE ADDRESSED AT THE INSTALLATION-LEVEL:

- ◆ Preserving and saving lives
- ◆ Preventing human suffering and preserving health and safety
- ◆ Securing and eliminating the hazard
- ◆ Mitigating the incident
- ◆ Protecting critical assets and infrastructure and preventing further damage to the installation and maintaining public confidence in the installation's ability to respond to a terrorist/hostile incident
- ◆ Incident reporting to higher headquarters
- ◆ Enforcing security measures to protect persons and property
- ◆ Notification and employment of select first and emergency responders
- ◆ Consider transfer of critical operations to secondary location(s), where applicable
- ◆ Impact of uncontrolled movement of contaminated casualties ("Self-Referrals")
- ◆ Hazardous material (HAZMAT) response capabilities
- ◆ Mass warning of family members, U.S. personnel supporting U.S. military operations and allied/coalition personnel
- ◆ Notification of emergency-essential military, DoD civilians, contractors and off-installation medical resources
- ◆ Casualty flow control at military treatment facilities/clinics
- ◆ Activation of the EOC
- ◆ Evacuation/shelter/shelter-in-place management
- ◆ Follow-on incident reporting to higher headquarters
- ◆ Establishment of staging areas
- ◆ Coordination with local responders
- ◆ Casualty tracking
- ◆ Plume modeling
- ◆ Establishment of mass care capability
- ◆ Agent confirmatory testing

(Concept for list originally from CNI 3440.17(see p.53); additions have been made for further response assistance by an Installation Commander)



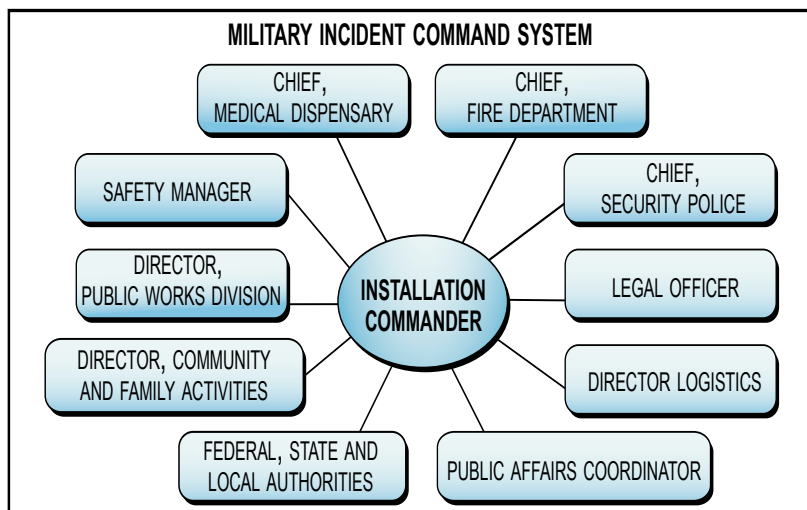
## WHAT TO ASK DURING THE RESPONSE

- ◆ What was detected? What are the symptoms? Was it a chemical, biological, radiological, nuclear or high-yield explosive incident?
- ◆ Where was the explosion/release? Are there any casualties?
- ◆ Did the explosion/release contain more than one CBRNE component, and are first responders checking for secondary devices?
- ◆ Who is the designated incident commander?
- ◆ Are there reports of other incidents, locally, nationally, or globally?
- ◆ What critical mission operations/facilities are affected?
- ◆ What critical operations/facilities can be preserved/relocated?
- ◆ Will the incident directly affect the surrounding community or multiple jurisdictions?
- ◆ If a downwind hazard exists, will it be affected due to weather? How will weather patterns affect response capabilities?  
(weather = wind air/speed/direction, rain/run-off, temperatures)
- ◆ Do any mutual aid agreements or MOU/MOAs exist?
- ◆ What local, State and Federal assistance is available and what would be their estimated time of arrival (ETA)?
- ◆ What equipment and protective clothing and measures will be required?
- ◆ What is the status of the work of the first responders?
- ◆ Is decontamination a concern? What medical treatment facilities are available for casualties?
- ◆ What is the status of the installation's mission critical facilities and critical support capabilities?

## SUGGESTED INTERMEDIATE PERSONNEL PROTECTIVE MEASURES

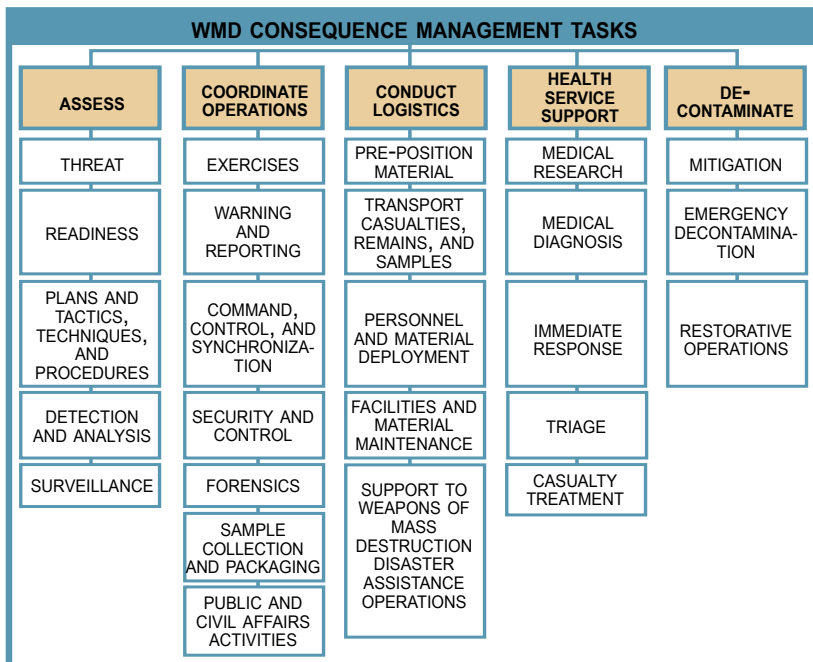
- ◆ Compartmentalize installation to preserve critical operations
- ◆ Be aware of secondary device threats during response efforts in rescue area
- ◆ Move upwind of the suspected area
- ◆ Cover all exposed skin surfaces and protect respiratory systems as much as possible
- ◆ Evacuate/shelter-in-place, minimizing passage through contaminated area

## COMMAND SYSTEM



## WHAT TO EXPECT DURING RESPONSE

- ◆ Confusion, casualties, and blocked road networks may interfere with the response efforts and cause a potential for fear amongst the local populace.
- ◆ Infrastructure damage to include water source and inability to account for all personnel due to unknown destruction of buildings/ roadways.
- ◆ The FBI is the lead jurisdictional authority for investigation and prosecution in the case of a terrorist event. Evidence must be preserved as much as possible.
- ◆ DHS may assume the role of the overall incident manager/ coordinator of consequence management operations if the event is determined to require a more systematic Federal response coordinated through the National Response Framework procedures.
- ◆ Press coverage will begin immediately and should be handled by the incident Joint Information Center (JIC).
- ◆ If a WMD-Civil Support Team is available, it may be notified through the State for additional response support and expertise.
- ◆ There may be damage to communications and electronics systems.



(Figure from Joint Pub 3-40, Figure IV-1)

This chart from JP 3-40 provides a basic outline of the most common DoD tasks and functions that must be addressed during DoD WMD CM operations. These tasks and functions are applicable to deliberate, adaptive and crisis action planning. Planning for specific tasks and functions required for a particular CM mission will be dependent upon the nature of the WMD material, meteorological conditions, anticipated impacted population/area and desired end states. More detailed information on these tasks and functions and operational contexts can be found in Joint Publication 3-41 (Consequence Management).

Domestic DoD CM operations where an Installation Commander provides support to, or requires support from, adjoining jurisdictions will be conducted within the context of Defense Support to Civil Authorities (DSCA). The 3025-series of DoD Directives, Instructions and Manuals define DoD DSCA policy, procedures, and processes consistent with the National Response Framework (NRF) and the National Incident Management System (NIMS). The NRF defines Federal agency responsibilities and response processes from an all-hazards approach, which includes the response to WMD incidents. The NIMS provides a common structure for command and control of response activities, as well as common concepts, principles, and terminology. Pages 9 and 10 of this handbook provide a more detailed overview of the NRF and NIMS.

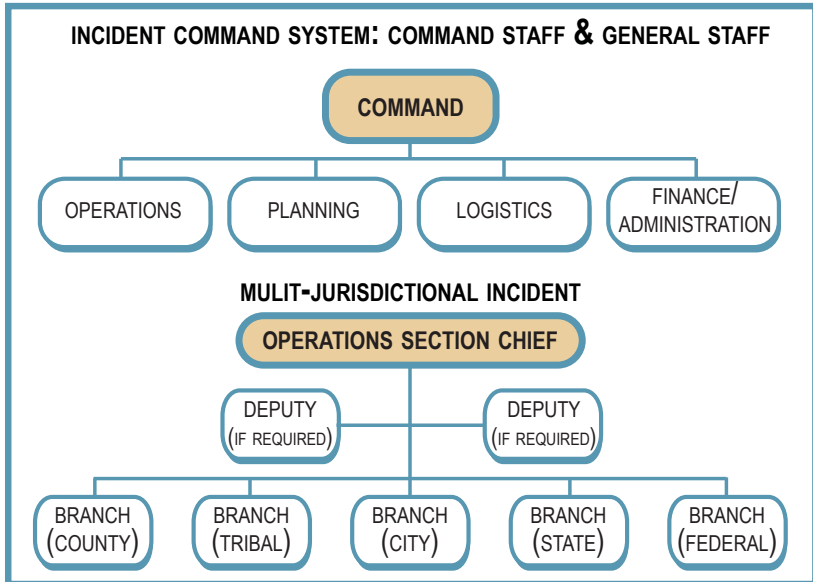
## THE NATIONAL RESPONSE FRAMEWORK (NRF) AND THE NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS)

DoD response to a domestic WMD incident will be conducted consistent with the NRF. The following are brief excerpts from the NRF which, along with DoD 3025-series publications, should be consulted for further reference.

The NRF and the NIMS integrate the capabilities and resources of various governmental jurisdictions, incident management and emergency response disciplines, nongovernmental organizations, and the private sector into a cohesive, coordinated, and seamless national framework for domestic incident management. The NRF, using the NIMS, is an all-hazards plan that provides the structure and mechanisms for national level policy and operational coordination for domestic incident management. Consistent with the model provided in the NIMS, the NRF can be partially or fully implemented in the context of a threat, anticipation of a significant event, or the response to a significant event.

The NRF, using the NIMS, establishes mechanisms to maximize prevention, preparedness, response, and recovery integration and improves coordination and integration of Federal, State, local, tribal, regional, private-sector, and nongovernmental organization partners. The NRF and the NIMS have also been established to efficiently utilize resources, improve incident management communications, increase situational awareness and facilitate emergency mutual aid and Federal emergency support across State, local, and tribal jurisdictions and between the public and private sectors.

The NIMS is a system mandated by HSPD-5 that provides a consistent, nationwide approach for Federal, State, local, and tribal governments; the private sector; and NGOs to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. To provide for interoperability and compatibility among Federal, State, local, and tribal capabilities, the NIMS includes a core set of concepts, principles, and terminology. The incident command system (ICS) forms the basic structure for incident management at all levels. An example chart of the basic ICS structure, with an additional chart of the Operations section for a multi-jurisdictional incident, are provided below.



The ICS employs a concept of “Unified Command” for complex incident management operations where multiple jurisdictions or agencies have authority or for incidents at multiple locations. Concepts of “command” and “unity of command” have distinct legal and cultural meanings for military forces and operations. For military forces, command runs from the President to the Secretary of Defense (SECDEF) to the Commander of the combatant command to the commander of the forces. The “Unified Command” concept utilized by civil authorities is distinct from the military chain of command.

**THE DEPARTMENT OF DEFENSE AND THE NRF/NIMS**

The DoD has significant resources that may be available to support the Federal response when directed by appropriate national authorities. The SECDEF shall provide and authorizes DSCA for domestic incidents as directed by the President or when consistent with military readiness operations and appropriate under the circumstances and the law. Accordingly, the DoD is considered a cooperating agency to the majority of the **NRF** Incident Annexes and a support agency to all Emergency Support Functions (ESFs) (except when the USA Army Corps of Engineers is a

primary agency for ESF #3, Public Works and Engineering). For additional information on DSCA, refer to the **NRF Base Plan and DoD 3025-series publications**.

Nothing in the **NRF** impairs or otherwise affects the authority of the SECDEF over the DoD, including the chain of command for military forces from the President as Commander-in-Chief, to the SECDEF, to the commander of military forces, or any other military command and control procedures. The SECDEF shall retain command of military forces conducting DSCA operations.

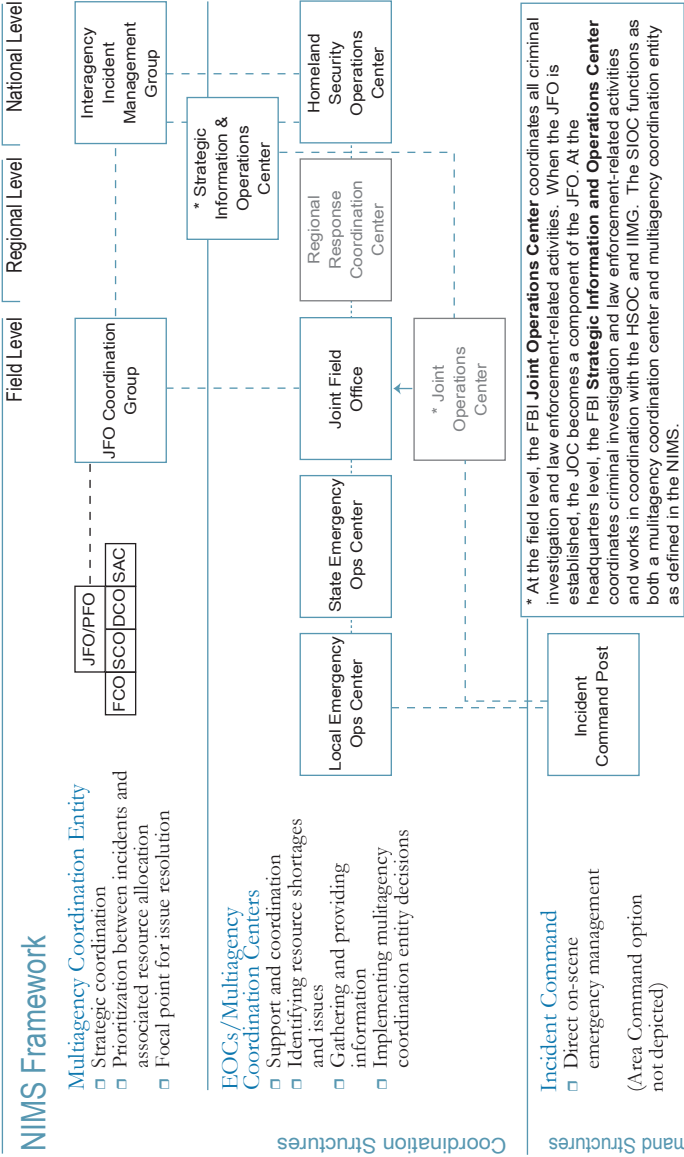
### ***The Defense Coordinating Officer***

If appointed by DoD, the DCO serves as DoD's single point of contact at the Joint Field Office (JFO) (the temporary Federal organization established locally to coordinate operational Federal assistance activities to the affected jurisdiction(s)). With few exceptions, requests for DSCA originating at the JFO are coordinated with and processed through the DCO consistent with DoD Instruction 3025. The DCO may have a Defense Coordinating Element (DCE) consisting of a staff and military liaison officers in order to facilitate coordination and support to activated ESFs. Specific responsibilities of the DCO (subject to modification based on the situation) include processing requirements for military support, forwarding mission assignments to the appropriate military organizations through DoD-designated channels, and assigning military liaisons such as Emergency Preparedness Liaison Officers (EPLOs), as appropriate, to activated ESFs.

### ***Immediate Response Authority***

Imminently serious conditions resulting from any civil emergency may require immediate action to save lives, prevent human suffering, and/or mitigate property damage. When such conditions exist and time does not permit approval from higher headquarters, local military commanders and responsible officials from DoD components and agencies are authorized by DoD directive and pre-approval by the SECDEF, subject to any supplemental direction that may be provided by their DoD component, to take necessary action to respond to requests of civil authorities consistent with the Posse Comitatus Act (18 U.S.C. § 1385). All such necessary action is referred to as "Immediate Response" and must be reported through the chain-of-command to the NMCC by the most expeditious means.

# NIMS FRAMEWORK AND STRUCTURE FOR NRP COORDINATION DURING A TERRORIST INCIDENT



## NIMS Framework

- Multagency Coordination Entity**
- Strategic coordination
  - Prioritization between incidents and associated resource allocation
  - Focal point for issue resolution

## EOCs/Multagency Coordination Centers

- Support and coordination
- Identifying resource shortages and issues
- Gathering and providing information
- Implementing multagency coordination entity decisions

## Coordination Structures

### Incident Command

- Direct on-scene emergency management
- (Area Command option not depicted)

## Command Structures

- JFO** = Joint Field Office
- SCO** = State Coordinating Officer
- DCO** = Defense Coordinating Officer
- FCO** = Federal Coordinating Officer
- SAC** = Special Agent in Charge (FBI)

## CONTACT NUMBERS

For a complete listing of CBRNE-specific assets/resources by installation, please see the DTRA CBRNE Database and/or the Nuclear Accident Response Capabilities Listing (NARCL).

AGENCY	PHONE #	LOCATION
<b>INSTALLATION NUMBERS</b>		
Installation Command Post		
On-Post Fire Department		
On-Post Emergency Dispatch (911 Center)		
Security Forces		
Installation Hospital Emergency Room		
Civil Engineers		
Chaplain		
Commander's Hotline		
Public Affairs Officer (PAO)		
Explosive Ordnance Disposal (EOD) (If Available - If Not, Contact Off-Installation Source)		
Emergency Operations Center (EOC)		
Public Works		
Mortuary Affairs		
Info. Technology/Communications Center		
<b>OFF-INSTALLATION LOCATION-SPECIFIC RESPONSE ASSISTANCE</b>		
Higher Headquarters		
State EOC		
FBI - Local Field Office		
Local Fire Department Per MOU/MOA		
Local Medical Facilities (Ambulance)		
Civilian Bomb Squad Per MOU/MOA		
Regional Federal Radiological Monitoring And Assessment Center (FRMAC) Office		
24 Hour Local EOC		
County Help Line Of State/County EOC		
U.S. Department Of Agriculture (USDA) (Local Regional Office)		
U.S. Department Of Health And Human Services (HHS) (Local Regional Office)		



AGENCY	PHONE #	LOCATION
<b>INSTALLATION NUMBERS</b>		
NMCC	703-693-8196 703-693-3441 703-697-6340	PENTAGON, WASHINGTON, DC
DHS National Operations Center (NOC)	(202) 282-8000 1-800-462-9029	WASHINGTON, DC
National Response Center	1-800-424-8802	WASHINGTON, DC
AFRRI	(301) 295-0316	BETHESDA, MD
IMAAC (NARAC) - Emergency Only	(925) 424-6465	WASHINGTON, DC
DOE/NNSA Operational Emergency and Incident Reporting	(202) 586-8100	WASHINGTON, DC
NARAC	(925) 422-7627	LIVERMORE, CA
CDC - Emergency Response Hotline	(770) 488-7100	ATLANTA, GA
CDC Coordinating Office of Terrorism Preparedness and Emergency Response	(404) 639-7405	ATLANTA, GA
CBIRF - Operations Officer	(301) 744-2027	INDIANHEAD, MD
USAF Hammer Ace	DSN: 574-5411 COMMERCIAL: (757) 764-5411	SCOTT AFB, IL
AFRAT	DSN: 240-5562 FRONT OFFICE: (210) 536-3486	SAN ANTONIO, TX
USAMRIID	1-888-872-7443	FT DETRICK, MD
USAMRICD	DSN: 584-3277 (410) 436-3277	ABERDEEN PROVING GROUND, MD
CHEMTREC	1-800-262-8200	ARLINGTON, VA
USDA Operations Center	(202) 720-5711 1-877-677-2369	WASHINGTON, DC
DTRA Operations Center	877-240-1187 DSN: 427-2003 COMMERCIAL: (703) 767-2003	ALEXANDRIA, VA

# CHEM/BIO/RAD DECONTAMINATION

## DECONTAMINATION PRINCIPLES

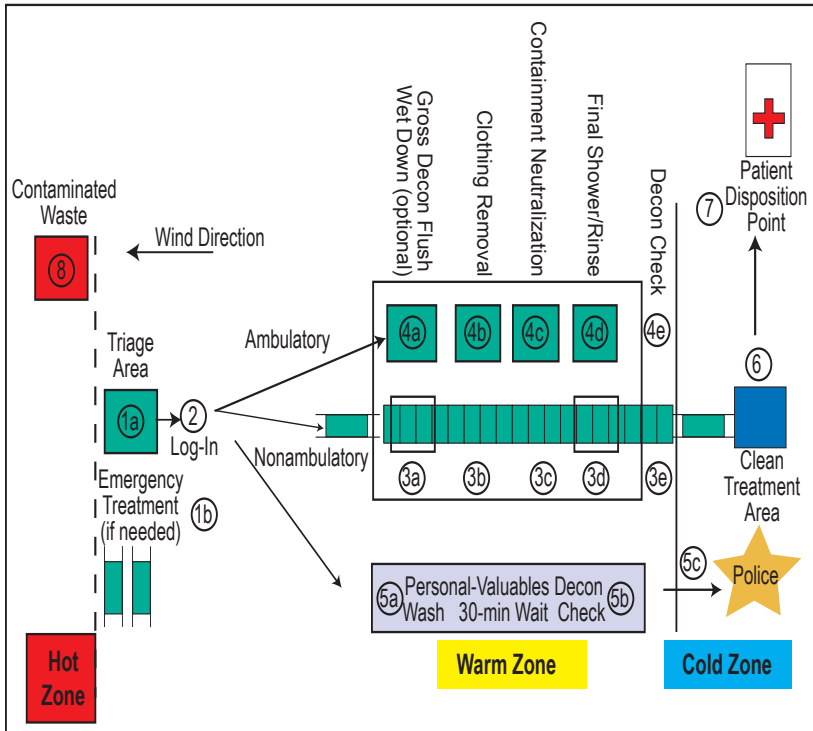
- ◆ For an effective response to a CBRNE incident, an installation must have, or have direct access to, trained personnel and specialized equipment with HAZMAT capabilities
- ◆ Decontaminate:
  - As soon as possible
  - Only what is necessary
  - As close to contaminated area as possible, upwind
  - With mission priority and health essentials in mind
- ◆ Wash exposed areas with soap and water for most immediate decontamination effects
- ◆ Identify readily-available water sources

## LEVELS OF PERSONAL PROTECTIVE EQUIPMENT (PPE)

*From the Office of Occupational Safety and Health, U.S. Department of Labor and the Environmental Protection Agency standards and guidance*

<b>Level A</b>	To be selected when the greatest level of skin, respiratory, and eye protection is required. These fully encapsulating suits afford protection against petroleum products and halogenated hydrocarbons, as well as against nerve and blister agents. Self-contained breathing apparatuses (SCBAs), totally-encapsulating chemical-protective suits, coveralls, safety boots/shoes, safety glasses and/or chemical splash goggles are recommended.
<b>Level B</b>	To be selected when the highest level of respiratory protection is necessary but a lesser level of skin protection is needed. Liquid splash-protective suits, pressure-demand, full face-piece SCBAs, inner chemical-resistant gloves and safety boots, and hard hats are recommended.
<b>Level C</b>	To be selected when the concentration(s) and type(s) of airborne substance(s) are known and the criteria for using air purifying respirators are met. Support function protective garments, full face-piece, air-purifying, canister-equipped respirators, chemical resistant gloves and safety boots, and hard hats are recommended.
<b>Level D</b>	A work uniform may be selected affording minimal protection: used for nuisance contamination only. Coveralls, safety boots/shoes, safety glasses or chemical splash goggles are recommended. Use Level D protection when no danger of chemical exposure exists. Current recommendations for PPE to be used in situations of radiation contamination suggest only Level D type protection plus a dust filter for respiratory protection.

## SAMPLE OF A CASUALTY DECONTAMINATION-CORRIDOR LAYOUT\*



(From FM 3-11.21, Figure C-3)

\*For more detailed information on casualty decontamination, please see FM 3-11.21, Appendix C

## CONSIDERATIONS WHEN DEALING WITH MASS DECONTAMINATION

- ◆ Isolation of contaminated victims within certain areas, or medical facilities, if available.
- ◆ Quarantines to restrict movement of personnel (and animals) in specific areas of the installation.
- ◆ Notification of affected public off-installation.
- ◆ Proper PPE at all times according to installation/DoD standards and requirements.
- ◆ Proper handling procedures for deceased collaborated with Mortuary Affairs and the State Medical Examiners Office.

# CHEM/BIO/RAD DECONTAMINATION

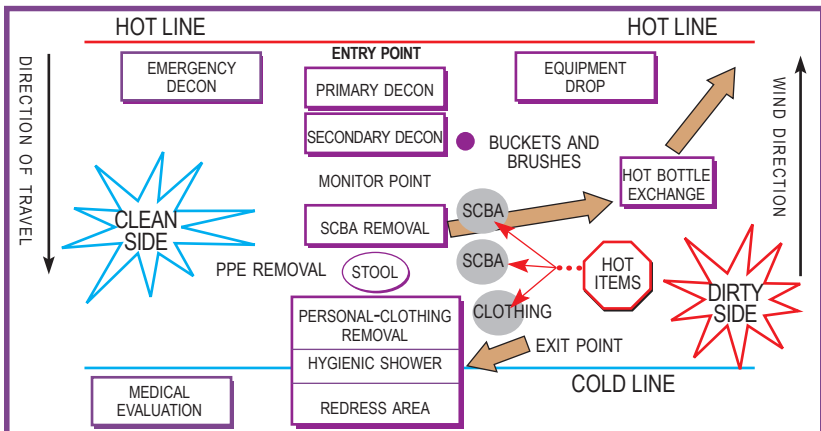
## IMPORTANT ACTIONS

- ◆ Provide concise information on the threat, recommendations on what should be done to combat it, and instructions on handling victims to all hospitals, clinics, nursing homes, home health care agencies, individual physicians, pharmacies, school nursing staffs, and other medical providers
- ◆ Initiate MOUs/MOAs for civilian medical assistance as the majority of installations have limited medical care expertise; the local health department or state public health region field office will typically take the lead in coordinating the local medical response when installation assets are overwhelmed

## ISSUES

- ◆ In most instances, respirators, M40/MCU-2P masks, or adequate levels of personal protective equipment (PPE) will be required
- ◆ Removal of outer clothing & rapid washing of exposed skin generally removes 90% of contamination
- ◆ Use caution when removing clothing from burned patients to prevent aggravation & further contamination of wounds
- ◆ Run-off may be contaminated, as will any used materials (wound dressings, protective gear, etc.), and should be collected in a protected location for disposal
- ◆ Take care moving injured personnel to avoid re-contamination of clean individuals

## SAMPLE OF A PERSONNEL DECONTAMINATION-STATION LAYOUT



## CHEMICAL DECONTAMINATION

### ISSUES



- ◆ Respirator, M40/MCU-2P masks, or adequate levels of PPE are required
- ◆ A clean treatment area should be established immediately
- ◆ Mild soap and hot water can be used to remove most, if not all, of the agent/gross contamination
- ◆ A diluted bleach solution (1 part bleach, 200 parts water) may be used for more complete skin decontamination
- ◆ Antidotes, when available, should be administered in the contaminated areas, if possible (i.e. Nerve Agent Antidote Kits (NAAK))
- ◆ Ensure medical responders, transport units, and receiving medical facilities are properly protected against secondary contamination
- ◆ Use Level A PPE if substance is unknown and move up equipment level as required by agent effects
- ◆ Know an immediately available water source
- ◆ Run-off needs to be contained
- ◆ Review procedures for storage and disposal of contaminated materials
- ◆ Consider replacement of clothes

## BIOLOGICAL DECONTAMINATION

### ISSUES



- ◆ Respirator, M40/MCU-2P masks, or adequate levels of PPE are required
- ◆ Inhalation is the most likely and largest area of concern for biological agents
- ◆ Scrubbing exposed area with mild soap and water is often sufficient to avert contact spread of agent – note that runoff will be contaminated
- ◆ Replacement of contaminated clothing with clean clothing
- ◆ Undiluted household bleach may assist in clothing and equipment decontamination (with 30 minutes of contact time and a solution of 1 part bleach, 100 parts water) and skin decontamination (1 part bleach, 200 parts water)

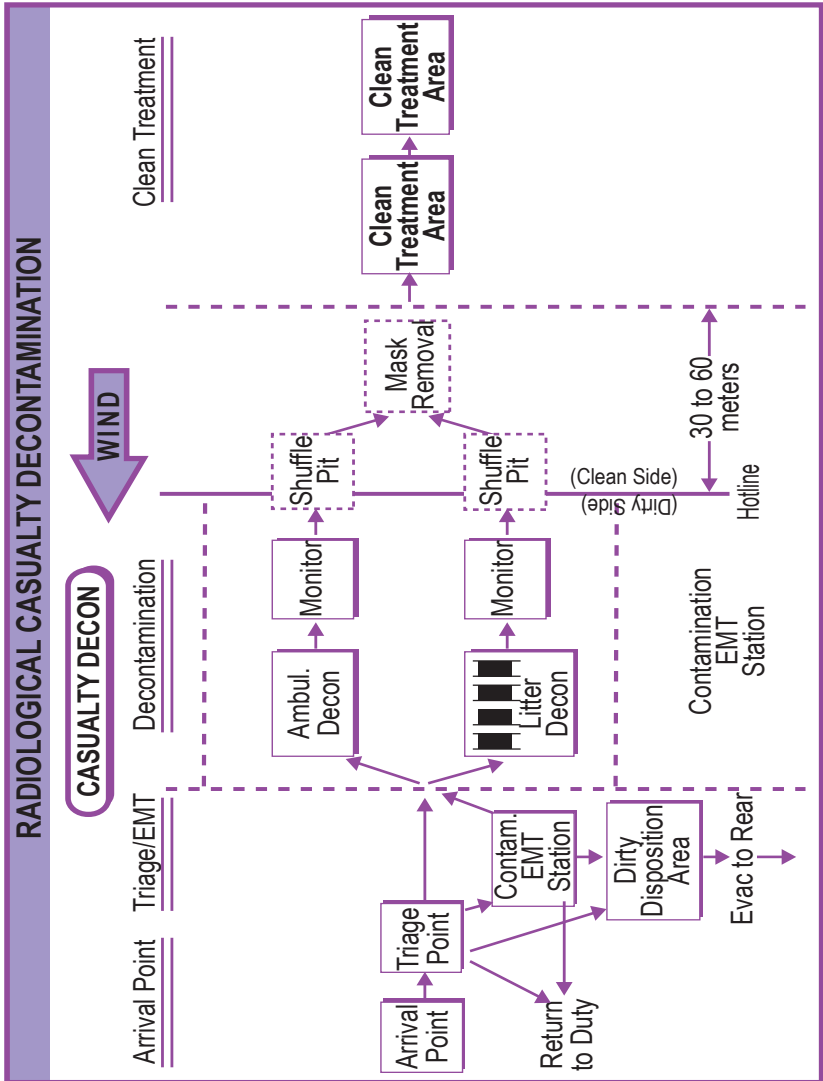
# RADIOLOGICAL DECONTAMINATION

## ISSUES



- ◆ Respirator, M40/MCU-2P masks, or adequate levels of PPE are required
- ◆ Radioactive contamination continues to irradiate nearby living things
- ◆ Contaminated patients do not present an immediate irradiation hazard to medical personnel with normal protection; following decontamination, they are no longer hazardous
- ◆ Decontamination should occur before arrival at installation medical facilities, but definitive medical health care should not be withheld for decontamination purposes
- ◆ Most external radioactive contamination can be eliminated by the removal of clothing
- ◆ If the casualty has surface contamination and no physical injuries, washing with soap and water provides effective decontamination
- ◆ If a contaminated casualty has substantial physical injuries, the casualty should be stabilized before decontamination is performed
- ◆ Be sure skin is washed thoroughly, but GENTLY – abrasions on the skin will lead to internal contamination
- ◆ A living patient cannot be so radiologically contaminated as to present an acute hazard to medical personnel; life/limb-saving medical attention should never be delayed because of the presence of radioactive material or contamination

The following diagram from AFRRRI's Medical Management of Radiological Casualties Handbook shows a setup for casualty reception in a contaminated environment. The actual setup of this area may vary depending on assets and circumstances.



## CHEMICAL INCIDENT

### INDICATIONS OF A CHEMICAL INCIDENT



- ◆ May not be easily detectable by senses
- ◆ Chemical cloud may exist; unusual number of dead or dying animals or insects in the area
- ◆ Unexplained odors (smell of bitter almonds, peach pits, newly mown hay, or green grass); *some agents may be odorless*
- ◆ Unusual liquid or unauthorized spraying in the area; agents may be released as tiny droplets, similar to the release of an insecticide
- ◆ Often large numbers of victims display a sudden onset of symptoms of nausea, difficulty breathing, convulsions, disorientation, or patterns of illness inconsistent with natural disease
- ◆ Low-lying clouds or fog unrelated to weather; clouds of dust; or suspended, possibly colored, particles
- ◆ The effect of a chemical agent depends on its concentration and type; smaller doses of the agent may or may not kill
- ◆ Some chemical agents are heavier than air, consequently when sheltering-in-place, remain out of low-lying areas, such as ditches or ravines

### EXAMPLES OF CHEMICAL AGENTS

TYPE/ AGENT	EXAMPLE	MECHANISM OF ATTACK	TIME OF ONSET OF SYMPTOMS	SYMPTOMS
Blister	Mustard (H)	Skin and tissue destruction on contact	Hours	Redness of skin, skin blistering, eye irritation, blindness, and lung disease
Nerve	Sarin (GB) and VX	Nervous system disruption on inhalation or contact	Seconds to minutes	Dim vision, muscular twitching, salivation, difficulty breathing, nausea, and convulsions
Blood	Cyanogen chloride (CK) Hydrogen cyanide (AC)	Blocking of blood and oxygen on inhalation	Seconds to minutes	Dizziness, nausea, vomiting, headaches, and convulsions
Choking	Phosgene (CG) Chlorine	Lung damage on inhalation	Min. for initial symptoms, several hrs. for later symptoms	Eye and airway irritation, tightness in the chest, shortness of breath, and fluid in the lungs

**IN THE EVENT OF A CHEMICAL INCIDENT CONTACT  
THE NATIONAL MILITARY COMMAND CENTER (NMCC)**

**(703) 692-2387  
(24 HOURS / 7 DAYS A WEEK)**



## INCIDENT (I) TO I+15 MIN – RESPONSE CHECKLIST



- ◆ **Gain situational awareness**
- ◆ **Initiate concept of operations, if it exists**
- ◆ **Continue the mission and critical operations**
- ◆ **Limit further damage to lives and property (contain the situation)**
- ◆ Notify the NMCC via Operational Report (OPREP)-3 incident report of terrorist/hostile chemical incident
- ◆ Confirm direct notification of Higher Headquarters, Fire, Emergency Medical Services (EMS), Security Forces, EOD, HAZMAT and Chemical Response Team, if available
- ◆ Adjust Force Protection (FPCON) level
- ◆ Activate Installation Command Post (ICP) or EOC
- ◆ Appoint an incident commander (usually senior Fire official at incident)
- ◆ Notify State and local authorities as defined in MOUs/MOAs
- ◆ Initiate mass notification via EOC (installation emergency alert system)
- ◆ Determine protective measures
- ◆ Confirm first responders have made initial assessment; established an on-scene command post, cordon, entry/exit points and staging area; are mitigating the situation; and are performing life-saving operations and initial casualty decontamination
- ◆ Confirm first responders have established hazardous/contamination control zones and are utilizing personal protection equipment and decontamination supplies and antidotes, if available
- ◆ Ensure first responders have checked for secondary devices
- ◆ Identify possible further health/medical needs and available resources/equipment
- ◆ Contact key health personnel (CDC, local hospitals, etc.)
- ◆ Identify affected individuals, if necessary, implement contamination avoidance measures (i.e. quarantine) and confirm establishment of casualty holding area
- ◆ Ensure preservation of evidence on-scene (crime scene)

## I+15 MIN TO I+1 HR – RESPONSE CHECKLIST



- ◆ Ensure Security Forces are implementing protection procedures of personnel and installation
- ◆ Assess infrastructure on-installation (communications, damage assessment, water/sewage/electricity, control of food, housing); issue notices, if necessary
- ◆ Activate JIC for incident announcements on and off-installation; monitor notification of local/civilian public with emergency alert system via radio/TV, mobile public address systems, and sirens via JIC; JIC will also process media requests for information and announcements
- ◆ Confirm installation mass notification and notification of affected local population (include directions for personal protection in public announcement)
- ◆ Activate installation shelter-in-place or evacuation plans via EOC and Security Forces
- ◆ Identify available transportation; direct coordination of alternate means/routes
- ◆ Conduct follow-on reports to higher headquarters via situation report (SITREP)
- ◆ Readjust FPCON level, if necessary
- ◆ Work with Higher Headquarters to coordinate arrival of DoD/ Federal response teams
- ◆ Ensure local off-installation assistance/mutual aid has access to installation and is arriving
- ◆ Begin/obtain personnel accounting information
- ◆ Confirm first responders are attempting identification of agent and scope of damage
- ◆ Confirm decontamination efforts; redefine boundaries of hazard/contamination control zones based on new information
- ◆ Assist in evacuation/relocation/traffic redirection, if necessary, via Security Forces
- ◆ Confirm and maintain contact with local and State EOCs, if activated
- ◆ Determine size/scope and ETA of DoD/Federal assets
- ◆ Confirm health and security personnel have cleared and secured on-installation hospital entrances and grounds

**CONTINUED . . .**

## I+15 MIN TO I+1 HR (CONT'D) – RESPONSE CHECKLIST



- ◆ Confirm all health centers (on-installation and off, if needed) are able to provide sufficient emergency care and that only life threatening injuries are receiving treatment before decontamination (public should be directed to seek medical attention only when needed)
- ◆ Seek medical advisors for possible preventative measures or limiting the effects of the chemical agent
- ◆ Assess status of local public transportation, private/military transportation assets

## I+1 HR TO I+4 HRS – RESPONSE CHECKLIST



- ◆ Continue notification of installation/local/civilian public via JIC
- ◆ Confirm entry/exit control of arriving mutual aid at staging area
- ◆ Coordinate with and brief arriving local, State, Federal and DoD agencies and assets
- ◆ Complete personnel accountability
- ◆ Determine how to transport personnel on/off/within the installation, if necessary; if evacuating, Security Forces will direct this process
- ◆ Confirm and monitor continuation of response and recovery operations and decontamination station upwind of the hot zone
- ◆ Confirm recharge of installation capabilities, if necessary
- ◆ Monitor decontamination efforts; ensure first entry team has been decontaminated
- ◆ Appropriate office (most installations, Legal Affairs) will make family notifications
- ◆ Confirm presumptive identification of agent type
- ◆ Continue preservation of evidence measures
- ◆ Confirm non-ambulatory casualties are removed during casualty extraction
- ◆ DoD will provide personnel, chemical weapon response resources and airborne sampling on request – EOC must coordinate request
- ◆ Continue personnel accounting of contaminated casualties at hospitals; coordinate with Mortuary Affairs for dead and continue advisory shelter-in-place/evacuation options
- ◆ Ensure provision of basic needs begins, if necessary

## I+4 HRS TO I+8 HRS – RESPONSE CHECKLIST



- ◆ Monitor public announcements as new information warrants
- ◆ Continue monitoring decontamination actions
- ◆ Continue monitoring evacuation status, if necessary
- ◆ Continue monitoring response and recovery operations
- ◆ State and local health departments and HHS will ensure availability of medical care/other human services, crisis counseling, chemical incident advice, etc.
- ◆ DHS will work to provide the installation with consequence management and mitigation support IAW the NRF, and may activate the NRF Terrorism Annex
- ◆ If directed by appropriate national authorities IAW the NRF, DHS will become the lead authority; FBI will maintain investigative authority and installation will support efforts
- ◆ If DHS and/or the FBI does not assume lead IAW the NRF, the installation will remain the lead authority for all consequence management and crisis management coordination, efforts and actions
- ◆ USDA may be contacted for food and agricultural contamination issues
- ◆ Continue monitoring installation's infrastructure and provision capabilities

## AN IMPORTANT NOTE ABOUT CHEMICAL INCIDENTS



### (From JP 3-11)

The hazards from a chemical strike may last for less than an hour or for several weeks. The effects on personnel may be immediate. For units forced into high levels of protection, missions will take longer to perform. A summary of chemical weapon effects for persistent and nonpersistent agents is shown on the next page.

## CHEMICAL WEAPONS EFFECTS

The following types of agents and their effects are based on military weaponized chemical agents. Toxic industrial chemicals/materials (such as chlorine or cyanide), which may be found near or on an installation, must also be considered. Their effects will be similar to those found below.

CHEMICAL WEAPONS EFFECTS		
CHEMICAL AGENT	TARGET OF CHOICE	TARGET EFFECT
<b>NONPERSISTENT NERVE</b>	PERSONNEL	IMMEDIATE AND LETHAL
<b>PERSISTENT NERVE</b>	PERSONNEL, MATERIAL, LOGISTICS AND COMMAND AND CONTROL FACILITIES	REDUCED OPERATIONS TEMPO OR MISSION DEGRADATION; LETHAL OR CASUALTY-PRODUCING
<b>PERSISTENT BLISTER</b>	SAME AS PERSISTENT NERVE	SAME AS PERSISTENT NERVE
<b>NONPERSISTENT BLOOD AND NON PERSISTENT CHOKING</b>	PERSONNEL	IMMEDIATE, LETHAL OR CASUALTY PRODUCING

Information taken from Joint Publication 3-11, Figure D-1

THREAT CHEMICAL AGENTS				
TYPES	SYMPTOMS	EFFECTS	RATE OF ACTION	RELEASE FROM
<b>NERVE</b>	DIFFICULTY BREATHING. SWEATING, DROOLING, NAUSEA, VOMITING, CONVULSIONS, AND DIMMING OF VISION. SYMPTOMS USUALLY DEVELOP QUICKLY.	INCAPACITATES AT LOW CONCENTRATION; KILLS IF INHALED OR ABSORBED THROUGH THE SKIN OR EYES.	VERY RAPID BY INHALATION OR THROUGH THE EYES; SLOWER THROUGH SKIN.	AEROSOL, VAPOR, OR LIQUID.
<b>BLOOD AND CHOKING</b>	DIFFICULTY BREATHING; COMA.	KILLS IF HIGH CONCENTRATION ARE INHALED.	RAPID.	AEROSOL OR VAPOR.
<b>BLISTER</b>	SYMPTOMS RANGE FROM IMMEDIATE TO DELAYED, DEPENDING ON AGENT. SEARING OF EYES AND STINGING OF SKIN. POWERFUL IRRITATION OF EYES, NOSE AND SKIN.	BLISTERS SKIN AND RESPIRATORY TRACT; CAN CAUSE TEMPORARY BLINDNESS. SOME STING AND FORM WELTS ON THE SKIN.	BLISTERS FROM MUSTARD MAY APPEAR SEVERAL HOURS AFTER EXPOSURE, WHEREAS LEWISITE CAUSES BLISTERS WITHIN MINUTES OF EXPOSURE.	LIQUID OR DROPLETS.

Taken directly from Joint Publication 3-11, Figure D-2

## BIOLOGICAL INCIDENT

### INDICATIONS OF A BIOLOGICAL INCIDENT



- ◆ Primary care physicians, hospitals, pharmacies & EMS providers will begin to notice off-season symptoms (similar to a flu outbreak to include symptoms like unexplained gastrointestinal illnesses and upper respiratory problems); careful to note that symptoms may occur during on-season as well
- ◆ Potential lag-time between employment and on-set of symptoms (except for fast-acting agents, e.g., ricin)
- ◆ Most biological agents have incubation period of 1-7 days before on-set of symptoms, thus potential for widespread contamination through affected personnel is great; detection will occur several hours/days/weeks after original dissemination
- ◆ Evidence of a disease that is unusual or does not occur naturally in a given area or manifestation of multiple disease symptoms in the same patients; indicates mixed agents
- ◆ Large numbers of military and civilian casualties may be affected within a geographic area
- ◆ Data suggesting an outbreak from a definitive source
- ◆ Large die-off in multiple species of animals
- ◆ Absence of a natural cause for the outbreak
- ◆ Biological agents can be classified as pathogens or toxins. Human pathogens are defined as organisms that cause disease in man. Pathogens include bacteria, rickettsia, fungi, and viruses. Naturally occurring toxins are non-living byproducts of cellular processes that can be lethal or highly incapacitating. Page 32 provides a synopsis of several potential biological agents and their ranges of effects (JP 3-11).

**IN THE EVENT OF A BIOLOGICAL INCIDENT  
CONTACT  
THE NATIONAL MILITARY COMMAND CENTER (NMCC)  
(703) 692-2387  
(24 HOURS / 7 DAYS A WEEK)**



**METHODS OF DISPERSAL**

- 1) Airborne via liquid droplets/aerosolized spray – hard to detect and is effective in covering large areas with minimal amounts of agent and equipment
- 2) Blood/body fluids
- 3) Food and water source introduction
- 4) Infected animal (vector) release
- 5) Dry powders (for example, via the postal system)

**IMPORTANT TO NOTE**

- ◆ May result in high mortality rates and have the potential for major public health impact, as well as cause public panic and social disruption
- ◆ Requires special action for public health preparedness
- ◆ Time required before symptoms are observed is dependent on the agent used and the dose received
- ◆ Most important is to identify an unfolding event early and be able to screen personnel rapidly and distribute antidotes effectively
- ◆ Best protection is hand-washing, masks and shelter-in-place
- ◆ There will be a need for an early decision to quarantine; coordinate with local department of health
- ◆ On-installation in-patient medical facility will need surge/storage isolation facility
- ◆ Agent can be identified with 100% accuracy only in a lab; results may be available within 24 - 48 hours
- ◆ Timely identification and communication of the attack is essential in treating and controlling the disease and limiting the effect on personnel
- ◆ Preventive medicine specialists shall be required to assist Commanders with identifying safe food and water sources in determining when to use treatment, immunization, and other preventative measures

**IMMEDIATE DISCOVERY (OVERT SCENARIO)  
INCIDENT (I) TO I + 1 HOUR – RESPONSE CHECKLIST**



**If an unknown biological agent/material is immediately present and discovered at the installation, follow the same general response activities as a CHEMICAL INCIDENT, with the following additional actions:**

- ◆ Upon possible discovery of any biological agent, notify first responders
- ◆ If a suspect package is found, leave where discovered and contact HAZMAT team, EOD, CDC and/or CBIRF, if available
- ◆ Clear the area, close any doors, and take actions to prevent entry into the area; shut off ventilation system(s)
- ◆ Advise personnel to immediately wash hands with soap and water to prevent spread; seek medical expert advice for exposed or potentially-exposed personnel
- ◆ Inform first responders where washing of hands took place for contaminated run-off
- ◆ Collaborate in creation of list of personnel that may have had contact with package or room where agent/material was found and provide to public health authorities and Security Forces
- ◆ Notify State and local authorities as defined in MOUs/MOAs
- ◆ First responders will monitor for amounts of contamination; FBI must be notified if a terrorist event is suspected
- ◆ To reduce panic, make a public announcement via EOC or activated JIC
- ◆ Quarantine affected area/personnel, as needed
- ◆ Begin setup of an office/area for incident information/advice
- ◆ Ensure preservation of evidence on-scene (crime scene)
- ◆ DHS will work to provide the installation with consequence management and mitigation support IAW the NRF, and may activate the NRF Terrorism Annex.
- ◆ If directed by appropriate national authorities IAW the NRF, DHS will become the lead authority; FBI will maintain investigative authority and installation will support efforts
- ◆ If DHS and/or the FBI does not assume lead IAW the NRF, the installation will remain the lead authority for all consequence management and crisis management coordination, efforts and actions



**DELAYED DISCOVERY:  
DAY 1 TO DAY 7 – RESPONSE CHECKLIST**



**NO NOTICE, HOSPITALS INDICATE ATYPICAL ACTIVITY:**

- ◆ Direct installation or request local department of health undertake an investigation
- ◆ Notify the NMCC via OPREP-3 incident report of possible terrorist/ hostile incident (DoD will make recommendations as the situation necessitates)
- ◆ Notify State and local authorities as defined in the MOUs/MOAs
- ◆ **The local health department or State Public Health Region Field Office, as the entities most familiar with community health providers, will typically take the lead in coordinating the local medical response, until Federal assets are available or requested for support**
- ◆ Alert Security Forces
- ◆ Notify local Emergency management and services organizations of situation (Fire, EMS, police)
- ◆ Warn medical community/health departments of situation, potential effects
- ◆ Contact neighboring jurisdictions to determine status (same? different?)
- ◆ Advise installation/community leaders of best protective measures
- ◆ Prepare public statement via EOC or activated JIC
  - Advise persons to stay in their homes
  - Advise persons to seek medical attention only if necessary
- ◆ Confirm initial determination of illness(es) and cause(s) (agent)
  - Determine contagiousness
- ◆ Make outbreak determination (if necessary)
- ◆ DHS will make a determination if Incident of National Significance (refer to last three bullets on previous page)
- ◆ Coordinate decision to quarantine with local health department
- ◆ Facilitate personnel health screening and treatment
- ◆ Facilitate antidote issuance and treatment
- ◆ Make CDC request (Strategic National Stockpile request) for additional medication via installation hospital, if necessary
- ◆ Seek medical advisors for possible preventative measures or limiting the effects of biological agent
- ◆ Put out extensive literature/information on proactive measures for the population to prevent transmission of the infection
- ◆ Ensure preservation of evidence on-scene (crime scene)

**DELAYED DISCOVERY:  
DAY 7 TO DAY 14 – RESPONSE CHECKLIST**



- ◆ Facilitate access of medical screeners to affected personnel
- ◆ Follow up with installation or local department of health undertaking the investigation
- ◆ Ensure Security Forces are maintaining public order
- ◆ Continue close communication with the medical community about hospital status
- ◆ Monitor status of neighboring jurisdictions
- ◆ Continue public statements as more information becomes available
- ◆ Direct increased surveillance for identified symptoms
- ◆ Determine and confirm case definition and attack rate
- ◆ Confirm persons likely infected; request suggested actions from expert medical personnel
- ◆ Confirm receipt of formal identification of outbreak contaminant
- ◆ Update local, State and Federal notifications (CDC, FBI, HHS, etc.)
- ◆ Hospitals, health care centers will maintain standard precautions/ actions and provide installation with updates
- ◆ Appropriate office (most installations, Legal Affairs) will make family notifications

**DELAYED DISCOVERY:  
DAY 14 TO DAY 21 – RESPONSE CHECKLIST**



- ◆ Follow up with installation or local department of health investigation
- ◆ Monitor status of public and protective measures being taken
- ◆ Update local, State and Federal notifications (CDC, FBI, HHS, etc.)
- ◆ Hospitals, health care centers will maintain standard precautions unless severe contagiousness is determined; Federal agencies and DoD will provide actions to installation if severe contagiousness is determined
- ◆ Monitor and confirm reachback capabilities and actions of CDC (Strategic National Stockpile), civilian hospital capabilities and MOUs/MOAs

POTENTIAL BIOLOGICAL AGENTS					
DISEASE OR AGENT	ROUTES OF INFECTION <sup>1</sup>	UNTREATED MORTALITY (%)	INCUBATION PERIOD	VACCINE	TREATMENT
ANTHRAX (BACILLUS ANTHRACIS)	S, D, R	S: 5-20% R: 80-90%	1-4 DAYS	YES	ANTIBIOTICS (LIMITED EFFECTIVENESS AFTER SEVERE SYMPTOMS DEVELOP)
BOTULINUM NEUROTOXINS	D, R	60%	1-4 DAYS	IND; AVAILABLE ONLY UNDER FDA-APPROVED PROTOCOL	IMMEDIATE ANTITOXIN
PLAGUE (YERSINIA PESTIS)	V, R	BUBONIC: 50% PNEUMONIC 100%	2-3 DAYS	NO	ANTIBIOTICS
Q FEVER (COXIELLA BURNETII)	V, R	< 1%	2-10 DAYS	IND	ANTIBIOTICS
RICIN TOXIN	D, R	35-39%	1-3 DAYS	NO	SYMPTOMATIC
STAPHYLOCOCCAL ENTEROTOXIN B	D, R	< 1%	4-6 DAYS	NO	SYMPTOMATIC
SMALLPOX	R	35-39%	10-12 DAYS	AVAILABLE ONLY FROM CONTROLLED US STOCK	SUPPORTIVE
TULAREMIA	D, R, V	30-60%	2-10 DAYS	IND	ANTIBIOTICS
VENEZUELAN EQUINE ENCEPHALITIS	R, V	< 1%	2-6 DAYS	IND	SUPPORTIVE
VIRAL HEMORRHAGIC FEVERS (EBOLA, MARBURG, LASSA, RIFT VALLEY, DENGUE, ETC.)	DC, R, V	UP TO 90% (DEPENDS ON VIRUS)	3-21 DAYS	NO	SYMPTOMATIC (SOME MAY RESPOND TO RIBAVIRIN)
D = DIGESTIVE SYSTEM    DC = DIRECT CONTACT    R = RESPIRATORY    S = SKIN    V = VECTOR IND = INVESTIGATIONAL NEW DRUG    FDA = FOOD & DRUG ADMINISTRATION					
NOTE: <sup>1</sup> RESPIRATORY WOULD BE THE PRIMARY ROUTE OF ENTRY IN A BIOLOGICAL ATTACK; AND THE MOST PROBABLE MODE OF DISSEMINATION WOULD BE RELEASE OF A BIOLOGICAL AGENT THROUGH AEROSOL DELIVERY.					

Information taken from Joint Publication 3-11, Figure C-1

# RADIOLOGICAL INCIDENT

## INDICATIONS OF A RADIOLOGICAL INCIDENT



*\* According to AFRRI's Medical Management of Radiological Casualties Handbook:*

- ◆ Material dispersed can originate from any location using radioactive sources (nuclear waste processors, nuclear power plants, university research facilities, medical radiotherapy clinics, or industrial complexes)
- ◆ Exposure may be known/recognized or clandestine through:
  - Large recognized exposures, such as radiological dispersal devices (any device that causes the purposeful dissemination of radioactive material across an area without a nuclear detonation; a radioactive source is blown up using conventional explosives and is scattered across the targeted area as debris)
  - Small radiation source emitting continuous gamma radiation producing group or individual chronic intermittent exposures (such as radiological sources from medical treatment devices or environmental water or food pollution)
- ◆ Exposure may result from one or any combination of the following:
  - External (such as skin contamination with a radioactive material)
  - Internal (absorbed, inhaled, or ingested radioactive material)
- ◆ Conventional explosion: will cause injury from the physical effects of the blast (debris scattered from explosion) in addition to the radiation and heavy-metal hazard inherent in many radioactive materials
- ◆ Psychological effects: severity will depend on the nature of the material and method of deployment; number of casualties from blast and a more frantic situation will intensify stress among personnel

### **Intermittent/Chronic Exposure Symptoms:**

- ◆ Headache, fatigue, weakness
- ◆ Anorexia, nausea, vomiting, diarrhea
- ◆ Partial and full thickness skin damage, hair loss, ulceration
- ◆ Low white blood cell count, a decrease in blood platelets, skin hemorrhaging, opportunistic infections

### **Specific Symptoms of Concern, especially with a 2-3 week prior history of nausea and vomiting:**

- ◆ Thermal burn-like skin effects without documented thermal exposure
- ◆ Immunological dysfunction with secondary infections
- ◆ A tendency to bleed (nose, gums)
- ◆ Decreased ability for blood clotting

**IN THE EVENT OF A RADIOLOGICAL INCIDENT  
CONTACT THE NATIONAL MILITARY COMMAND CENTER (NMCC)  
(703) 692-2387 (24 HOURS / 7 DAYS A WEEK)**

## IMPORTANT INFORMATION ON RADIOLOGICAL DISPERSAL

### **According to DoD Concept of Operations for CBRNE Defense Supporting US Military Installation and Facility Preparedness:**

- ◆ Low-level radiological material is available from a large number of industrial sources worldwide.
- ◆ Terrorists able to gain access to this material could exploit it **using explosive devices (or devices such as aerial sprayers or hidden stationary sources)**.
- ◆ Specific examples of terrorist/hostile radiological hazards include iridium, cobalt, cesium, and highly enriched uranium (HEU) as the core of a radiological dispersal device.
- ◆ Although rarely lethal in the near-term, the deliberate dissemination of radioactive matter can cause considerable immediate psychological harm. At moderate dosages, exposed personnel could also experience delayed effects or might develop cancer decades later.

### **Treatment Considerations** (from AFRRRI's Medical Management of Radiological Casualties Handbook):

- ◆ If trauma is present, treat
- ◆ If external radioactive contaminants are present, decontaminate
- ◆ If radioiodine (reactor accident) is present, consider giving prophylactic potassium iodide (Lugol's Solution) within first 24 hours only (ineffective later)

### **Decontamination Considerations** (from AFRRRI's Medical Management of Radiological Casualties Handbook):

- ◆ Exposure without contamination requires no decontamination (Radiation Safety Officer (RSO) measurement)
- ◆ Exposure with contamination requires Universal Precautions, removal of patient clothing, and decontamination with water
- ◆ For internal contamination, contact RSO and/or nuclear medicine physician
- ◆ Treating contaminated patients before decontamination may contaminate the facility; plan for decontamination before arrival
- ◆ Patient with life-threatening condition: treat, then decontaminate
- ◆ Patient with non-life-threatening condition: decontaminate, then treat

## INCIDENT (I) TO 15 MIN – RESPONSE CHECKLIST



- ◆ **Gain situational awareness**
- ◆ **Initiate concept of operations, if exists**
- ◆ **Continue the mission and critical operations**
- ◆ **Limit further damage to lives and property (contain the situation)**
- ◆ Notify the NMCC via OPREP-3 incident report of terrorist/hostile radiological incident (ensure nuclear detonation is not reported)
- ◆ Confirm direct notification of Higher Headquarters, Fire, EMS, Security Forces, EOD, radiological response assets, if available
- ◆ Adjust FPCON level
- ◆ Activate ICP/EOC
- ◆ Appoint an incident commander (usually senior fire official at incident)
- ◆ Notify State and local authorities as defined in the MOUs/MOAs
- ◆ Initiate mass notification via EOC (installation emergency alert system)
- ◆ Determine protective measures
- ◆ Confirm first responders have made initial assessment; established an on-scene command post, cordon, entry/exit points and staging area; mitigated the situation; and are performing life-saving operations and initial casualty decontamination
- ◆ Confirm first responders have established hazardous/contamination control zones and are utilizing personal protection equipment and decontamination supplies
- ◆ Ensure first responders have checked for secondary devices
- ◆ Identify possible further health/medical needs and available resources/equipment
- ◆ Contact key health personnel (radiological assistance teams/agencies, local hospitals, etc.)
- ◆ Identify affected individuals, if necessary, implement contamination avoidance measures for surrounding incident area
- ◆ Ensure preservation of evidence on-scene (crime scene)

## I+15 MIN TO I+1 HR – RESPONSE CHECKLIST



- ◆ Ensure Security Forces are implementing protection procedures of personnel and installation
- ◆ Assess infrastructure on-installation (communications, damage assessment, water/sewage/electricity, control of food, housing); issue notices, if necessary
- ◆ Activate JIC for incident announcements on and off-installation; monitor notification of local/civilian public with emergency alert system via radio/TV, mobile public address systems, and sirens via JIC; JIC will also process media requests for information and announcements
- ◆ Confirm installation mass notification and notification of local affected population (include directions for personal protection in public announcements)
- ◆ Activate installation shelter-in-place or evacuation plans via EOC and Security Forces
- ◆ Confirm establishment of cordon for first responders until radiation levels have been determined
- ◆ Conduct follow-on reports to Higher Headquarters via SITREP
- ◆ Readjust FPCON level, if necessary
- ◆ Work with higher headquarters to coordinate arrival of Federal/DoD response teams
- ◆ Identify available transportation; direct coordination of alternate means, routes
- ◆ Ensure local off-installation assets (mutual aid) have access to installation and are arriving
- ◆ Begin/obtain personnel accounting information
- ◆ Monitor response and recovery actions; confirm type of radiation and dispersal means known
- ◆ Confirm decontamination efforts; boundaries of hazardous/contamination control zones redefined based on new information
- ◆ Assess Medical Center capabilities to handle contaminated casualties
- ◆ Assist in evacuation/relocation/traffic redirection preparation if necessary, via Security Forces

CONTINUED . . .

## I+15 MIN TO I+1 HR (CONT'D) – RESPONSE CHECKLIST



- ◆ Confirm and maintain contact with local and State EOCs, if activated
- ◆ Determine size/scope and ETA of DoD/Federal assets
- ◆ Confirm health and security personnel have cleared and secured on-installation hospital entrances and grounds
- ◆ Confirm all health centers (on-installation and off, if needed) are able to provide sufficient emergency care and that only life threatening injuries are receiving treatment before decontamination (public should be directed to seek medical attention only when needed)
- ◆ Assess status of local public transportation, private/military transportation assets
- ◆ Seek medical advisors for possible preventative measures or limiting the effects of radiation

## I+1 HR TO I+4 HRS – RESPONSE CHECKLIST



- ◆ Continue notification of installation/local/civilian public via JIC
- ◆ Confirm entry/exit control of arriving mutual aid at staging area
- ◆ Coordinate with/brief arriving State, Federal and DoD agencies
- ◆ Complete personnel accountability
- ◆ Monitor continued response and recovery efforts and decontamination efforts
- ◆ Determine how to transport people on/off/within the installation, if necessary; if evacuating, Security Forces will direct this process
- ◆ Installation may request the radiological assistance teams or agencies (i.e. the FRMAC)
- ◆ Department of Energy (DOE) and DTRA (Hazard Prediction and Assessment Capability (HPAC)) (202-586-2830 and 1-877-240-1187 respectively) can model plumes; requests should go through their EOCs in Washington, D.C.
- ◆ Appropriate office (most installations, Legal Affairs) will make family notifications
- ◆ Confirm presumptive identification of radiation type
- ◆ Continue preservation of evidence measures

**CONTINUED . . .**



## I+1 HR TO I+4 HRS (CONT'D) – RESPONSE CHECKLIST



- ◆ Confirm non-ambulatory casualties are removed during casualty extraction
- ◆ Continue personnel accounting of contaminated casualties at hospitals; coordinate with Mortuary Affairs for dead and continue advisory shelter-in-place/evacuation options
- ◆ Ensure provision of basic needs begins, if necessary

## I+4 HRS TO I+8 HRS – RESPONSE CHECKLIST



- ◆ Monitor public announcements as new information warrants
- ◆ Continue monitoring response and recovery efforts
- ◆ Continue to monitor decontamination actions
- ◆ Monitor evacuation status, if necessary
- ◆ DHS will work to provide the installation with consequence management and mitigation efforts and incident oversight if directed by appropriate national authorities IAW the NRF (the NRF Nuclear/Radiological Annex and/or Terrorism Annex may be activated)
- ◆ If directed by appropriate national authorities IAW the NRF, DHS will become the lead authority; FBI will maintain investigative authority and installation will support efforts
- ◆ If DHS and/or the FBI does not assume lead IAW the NRF, the installation will remain the lead authority for all consequence management and crisis management coordination, efforts and actions
- ◆ DoD will provide personnel, radiological resources and airborne sampling on request
- ◆ State and local health department and HHS will ensure availability of medical care/other human services, crisis counseling, radiological incident advice, if necessary
- ◆ DOE will provide radiological monitoring and assessment activities, generate plume models and provide reference material for calibrating radiological instruments; radiation shielding materials upon request

# NUCLEAR INCIDENT

## INDICATIONS OF A NUCLEAR INCIDENT



**Blast:** Increased pressure and strong winds collapse buildings and displace objects; crushes, deforms, tumbles, shocks, creates projectile missiles and obstacles; flying debris and blast will cause physical injury

**Thermal Radiation:** Intense heat burns and starts fires and will cause eye damage

**Nuclear Radiation:** Causes immediate or delayed radiation sickness and may cause death within close proximity of detonation (personnel affected will depend on size of weapon), increases disease and non-battle injury, material and terrain contamination; neutrons and gamma rays produced during the first minute, but fallout may last for years

**Radiation Sickness:** Severe radiation sickness resulting from external irradiation and its consequent organ effects is a primary medical concern; when appropriate medical care is not provided, the median lethal dose of radiation, the LD50/60 (that which will kill 50% of the exposed persons within a period of 60 days), is estimated to be 3.5 grays of absorbed radiation

**Electromagnetic Pulse:** Causes permanent or temporary impairment of electrical, electro-optical, and electronic equipment and communications systems

**Flashblindness:** A temporary condition that occurs with peripheral observation of a brilliant flash of intense light energy, for example, a fireball; the duration of flash blindness can last several seconds when exposure occurs during daylight and will be followed by a darkened afterimage that lasts for several minutes (at night, flash blindness can last for up to 30 minutes)

**Psychological Effects:** Include intense acute and chronic stress disorders

\* The above information taken from JP 3-11 and AFRRI's Medical Management of Radiological Casualties Handbook.

**IN THE EVENT OF A NUCLEAR INCIDENT  
CONTACT THE NATIONAL MILITARY COMMAND CENTER (NMCC)  
(703) 692-2387 (24 HOURS / 7 DAYS A WEEK)**

## INCIDENT (I) TO I+15 MIN – RESPONSE CHECKLIST



- ◆ **Gain situational awareness**
- ◆ **Initiate concept of operations, if exists**
- ◆ **Continue the mission and critical operations**
- ◆ **Limit further damage to lives and property (contain the situation)**
- ◆ Notify the NMCC via OPREP-3 incident report of terrorist/hostile nuclear incident (ensure nuclear detonation is reported)
- ◆ Confirm direct notification of Higher Headquarters, Fire, EMS, Security Forces, EOD, radiological response assets, if available
- ◆ Adjust FPCON level
- ◆ Activate ICP/EOC
- ◆ Appoint an incident commander (usually senior fire official at incident)
- ◆ Notify State and local authorities as defined in the MOUs/MOAs
- ◆ NMCC notifies DHS who may implement appropriate NRF procedures and may activate the NRF Catastrophic Incident Annex and/or the Nuclear/Radiological and Terrorism Annexes
- ◆ DHS will work to provide the installation with consequence management and mitigation efforts and incident oversight
- ◆ If directed by appropriate national authorities IAW the NRF, DHS will become the lead authority; FBI will maintain investigative authority and installation will support efforts
- ◆ If DHS and/or the FBI does not assume lead IAW the NRF, the installation will remain the lead authority for all consequence management and crisis management coordination, efforts and actions
- ◆ Initiate mass notification via EOC (installation emergency alert system)
- ◆ Determine protective measures
- ◆ Confirm first responders have made initial assessment; established an on-scene command post, cordon, entry/exit points and staging area; mitigated the situation; and are performing life-saving operations and initial casualty decontamination

CONTINUED . . .

## INCIDENT (I) TO I+15 MIN (CONT'D) – RESPONSE CHECKLIST



- ◆ Confirm first responders have established hazardous/contamination control zones and are utilizing personal protection equipment and decontamination supplies
- ◆ Ensure first responders have checked for secondary devices
- ◆ Identify possible further health and medical needs and available resources and equipment
- ◆ Contact key health personnel (radiological assistance teams/agencies, local hospitals, etc.)
- ◆ Identify affected individuals, if necessary, implement contamination avoidance measures for surrounding incident area
- ◆ Ensure preservation of evidence on-scene (crime scene)

## I+15 MIN TO I+1 HR – RESPONSE CHECKLIST



- ◆ Confirm establishment of National Defense Area (NDA), secure area around the incident site; issue airspace restrictions; maintain close communications with Security Forces
- ◆ Order the establishment of a cordon for first responders
- ◆ Ensure Security Forces are implementing protection procedures of personnel and installation
- ◆ Assess infrastructure on-installation (communications, damage assessment, water/sewage/electricity, control of food, housing); issue notices, if necessary
- ◆ Activate JIC for incident announcements on and off-installation; monitor notification of local/civilian public with emergency alert system via radio/TV, mobile public address systems, and sirens via JIC; JIC will also process media requests for information and announcements
- ◆ Confirm installation mass notification and notification of local affected population (include directions for personal protection in public announcements)
- ◆ Activate installation shelter-in-place or evacuation plans via EOC and Security Forces
- ◆ Conduct follow-on reports to Higher Headquarters via SITREP
- ◆ Readjust FPCON level, if necessary

CONTINUED . . .

## I+15 MIN TO I+1 HR (CONT'D) – RESPONSE CHECKLIST



- ◆ Work with higher headquarters to coordinate arrival of Federal/DoD response teams
- ◆ Ensure local off-installation assets/mutual aid has access to installation and is arriving
- ◆ Begin/obtain personnel accounting information
- ◆ Monitor response and recovery actions
- ◆ Confirm decontamination efforts; boundaries of hazardous/contamination control zones redefined based on new information
- ◆ Assist in evacuation/relocation/traffic redirection/preparation if necessary, via Security Forces
- ◆ Confirm and maintain contact with local and State EOCs, if activated
- ◆ Determine size/scope and ETA of DoD/Federal assets
- ◆ Confirm health and security personnel have cleared and secured on-installation hospital entrances and grounds
- ◆ Confirm all health centers (on-installation and off, if needed) are able to provide sufficient emergency care and that only life threatening injuries are receiving treatment before decontamination (public should be directed to seek medical attention only when needed)
- ◆ Assess status of local public transportation, private/military transportation assets
- ◆ Seek medical advisors for possible preventative measures or limiting the effects of radiation

## I+1 HR TO I+4 HRS – RESPONSE CHECKLIST



- ◆ Continue notification of installation/local/civilian public via JIC
- ◆ Confirm entry/exit control of arriving mutual aid at staging area
- ◆ Coordinate with/brief arriving State, Federal and DoD agencies
- ◆ Complete personnel accountability
- ◆ Monitor continued response and recovery efforts and decontamination efforts

CONTINUED . . .

## I+1 HR TO I+4 HRS (CONT'D) – RESPONSE CHECKLIST



- ◆ Determine how to transport people on/off/within the installation, if necessary; if evacuating, Security Forces will direct this process
- ◆ Installation may request the radiological assistance teams or agencies, (i.e. the FRMAC)
- ◆ DOE and DTRA (HPAC) can model plumes; requests should go through their EOCs in Washington, D.C. (202-586-2830 and 1-877-240-1187 respectively)
- ◆ Appropriate office (most installations, Legal Affairs) will make family notifications
- ◆ Continue preservation of evidence measures
- ◆ Confirm non-ambulatory casualties are removed during casualty extraction
- ◆ Continue personnel accounting of contaminated casualties at hospitals; coordinate with Mortuary Affairs for dead and continue advisory shelter-in-place/evacuation options
- ◆ Ensure provision of basic needs begins, if necessary

## I+4 HRS TO I+8 HRS – RESPONSE CHECKLIST



- ◆ Monitor public announcements as new information warrants
- ◆ Continue monitoring response and recovery efforts
- ◆ Continue to monitor decontamination actions
- ◆ Monitor evacuation status, if necessary
- ◆ DoD will provide personnel, radiological resources and airborne sampling on request
- ◆ State/local health department and HHS will ensure availability of medical care/other human services, crisis counseling, radiological incident advice, if necessary
- ◆ DOE will provide radiological monitoring and assessment activities, generate plume models and provide reference material for calibrating radiological instruments; radiation shielding materials upon request

## ACUTE RADIATION SYNDROME

PHASE OF SYNDROME	WHOLE-BODY IRRADIATION FROM EXTERNAL RADIATION OR INTERNAL ABSORPTION				LETHAL RANGE (RAD OR CGY)	
	SUBCLINICAL RANGE (RAD OR CGY)	SUBLETHAL RANGE (RAD OR CGY)	SUBLETHAL RANGE (RAD OR CGY)	SUBLETHAL RANGE (RAD OR CGY)	SUBLETHAL RANGE (RAD OR CGY)	LETHAL RANGE (RAD OR CGY)
INITIAL OR PRODROMAL	NAUSEA, VOMITING	0-100	100-200	200-600	600-800	600-3000
	TIME OF ONSET	NONE	5-50%	50-100%	75-100%	100%
	DURATION LYMPHOCYTE COUNT		3-6 H	2-4 H	1-2 H	<1 H
	CNS FUNCTION	NO IMPAIRMENT	<24 H	<24 H <1000 AT 24 H	<48 H <500 AT 24 H	<48 H
LATENT		>2 WKS	7-15 D	0-7 D	0-2 D	NONE
MANIFEST (OBVIOUS) ILLNESS	SIGNS AND SYMPTOMS	NONE	MODERATE LEUKOPENIA	SEVERE LEUKOPENIA, PURPURA, HEMORRAGE, PNEUMONIA, HAIR LOSS AFTER 300 RAD (CGY)		DIARRHEA, FEVER, ELECTROLYTE DISTURBANCE
	TIME OF ONSET		>2 WKS	2 D - 2 WKS		2-3 D
	CRITICAL PERIOD		NONE	4-6 WKS		5-14 D
HOSPITALIZATION		0	<5% 45-60 D	HEMATOPOIETIC AND RESPIRATORY (MUCOSAL) SYMPTOMS		GI TRACT MUCOSAL SYSTEMS
FATALITY		0%	0%	90% 60-90 D	100% 90+ D	100% 2 WKS
TIME OF DEATH			0%	0-80% 3-12 WKS	90-100%	90-100% 1-2 WKS

From AFRRl's Medical Management of Radiobiological Casualties Handbook

## HIGH-YIELD EXPLOSIVE (HE) INCIDENT

### INDICATIONS OF A HIGH-YIELD EXPLOSIVE INCIDENT



**Heat and Fires:** Intense heat from explosion will cause burns and start fires

**Blast Pressure Effect (most powerful of all explosive effects):**

Expanding gases exert extreme pressure on atmosphere surrounding point of detonation; pressure and strong winds collapse buildings and displace objects in the case of a very large explosion

**Fragmentation Effect:** Debris and fragmentation are produced by the explosive container, objects around the detonation point and the intended target

**Thermal Effect:** High explosives produce higher temperatures for a shorter time; effect is seen usually as a bright flash at the moment of detonation; a fireball is more likely to cause a secondary fire than a high-yield explosive detonation

**Ground and Water Shock:** Occurs when an explosive is initiated while buried in the earth or submerged under water – may cause substantially greater damage

**Blast and Flying Debris:** Will cause the most physical injury and casualties

**Weakened and Collapsed Buildings:** Will create hazardous areas

**Disorientation and Mental Trauma:** For those at or close to the detonation site

**Ensure FIRST RESPONDERS are aware during RESPONSE and RECOVERY MISSIONS of SECONDARY DEVICE THREATS; If there is any indication of a SECONDARY CHEMICAL, BIOLOGICAL, OR RADIOLOGICAL (CBR) DEVICE attached to a HIGH-EXPLOSIVE INCIDENT, Turn to the suggested CBR INITIAL RESPONSE ACTIONS in this handbook.**

**IN THE EVENT OF A HIGH-YIELD EXPLOSIVE INCIDENT  
CONTACT THE NATIONAL MILITARY COMMAND CENTER (NMCC)  
(703) 692-2387 (24 HOURS / 7 DAYS A WEEK)**



## INCIDENT (I) TO I+15 MIN – RESPONSE CHECKLIST



- ◆ **Gain situational awareness**
- ◆ **Initiate concept of operations, if exists**
- ◆ **Continue the mission and critical operations**
- ◆ **Limit further damage to lives and property (contain the situation)**
- ◆ Notify the NMCC via OPREP-3 incident report of terrorist/hostile high-explosive incident (if secondary devices, report as well)
- ◆ Confirm direct notification of Higher Headquarters, Fire, EMS, Security Forces, and EOD
- ◆ Adjust FPCON level
- ◆ Activate ICP/EOC
- ◆ Appoint an incident commander (usually senior fire official at incident)
- ◆ Notify State and local authorities as defined in the MOUs/MOAs
- ◆ NMCC notifies DHS who may declare an Incident of National Significance and activate the NRF Catastrophic Incident Annex and/or the Terrorism Annex
- ◆ DHS will work to provide the installation with consequence management and mitigation efforts and incident oversight
- ◆ If directed by appropriate national authorities IAW the NRF, DHS will become the lead authority; FBI will maintain investigative authority and installation will support efforts
- ◆ If DHS and/or the FBI does not assume lead IAW the NRF, the installation will remain the lead authority for all consequence management and crisis management coordination, efforts and actions
- ◆ Initiate mass notification via EOC (installation emergency alert system)
- ◆ Confirm first responders have made initial assessment, established an on-scene command post, cordon, entry/exit points and staging area, mitigated the situation and are performing life-saving operations and initial casualty decontamination, if it exists
- ◆ Ensure first responders have checked for secondary devices, if present, turn to CBR incident response in this manual
- ◆ Identify possible further health and medical needs and available resources and equipment
- ◆ Contact key health personnel (CBR assistance teams/agencies, local hospitals, etc.)
- ◆ Ensure preservation of evidence on-scene (crime scene)

## I+15 MIN TO I+1 HR – RESPONSE CHECKLIST



- ◆ Confirm secure area around the incident site; issue airspace restrictions; maintain close communications with Security Forces
- ◆ Ensure Security Forces are implementing protection procedures of personnel and installation
- ◆ Assess infrastructure on-installation (communications, damage assessment, water/sewage/electricity, control of food, housing); issue notices, if necessary
- ◆ Activate JIC for incident announcements on and off-installation; monitor notification of local/civilian public with emergency alert system via radio/TV, mobile public address systems, and sirens via JIC; JIC will also process media requests for information and announcements
- ◆ Confirm installation mass notification and notification of local affected population (include directions for personal protection in public announcements)
- ◆ Activate installation shelter-in-place or evacuation plans via EOC and Security Forces
- ◆ Conduct follow-on reports to Higher Headquarters via SITREP
- ◆ Readjust FPCON level, if necessary
- ◆ Work with Higher Headquarters to coordinate arrival of Federal/DoD response teams
- ◆ Ensure local off-installation assets/mutual aid has access to installation and is arriving
- ◆ Begin/obtain personnel accounting information
- ◆ Monitor response and recovery actions
- ◆ Confirm decontamination efforts, if necessary
- ◆ Assist in evacuation/relocation/traffic redirection/preparation if necessary, via Security Forces
- ◆ Confirm and maintain contact with local and State EOCs, if activated
- ◆ Determine size/scope and ETA of DoD/Federal assets
- ◆ Confirm health and security personnel have cleared and secured on-installation hospital entrances and grounds
- ◆ Confirm all health centers (on-installation and off, if needed) are able to provide sufficient emergency care
- ◆ Assess status of local public transportation, private/military transportation assets

## I+1 HR TO I+4 HRS – RESPONSE CHECKLIST



- ◆ Continue notification of installation/local/civilian public via JIC
- ◆ Confirm entry/exit control of arriving mutual aid at staging area
- ◆ Coordinate with/brief arriving State, Federal and DoD agencies
- ◆ Complete personnel accountability
- ◆ Monitor continued response and recovery efforts and decontamination efforts, if necessary
- ◆ Determine how to transport people on/off/within the installation, if necessary; if evacuating, Security Forces will direct this process
- ◆ Appropriate office (most installations, Legal Affairs) will make family notifications
- ◆ Continue preservation of evidence measures
- ◆ Continue personnel accounting of casualties at hospitals; coordinate with Mortuary Affairs for dead and continue advisory shelter-in-place/evacuation options
- ◆ Ensure provision of basic needs begins, if necessary

## I+4 HRS TO I+8 HRS – RESPONSE CHECKLIST



- ◆ Monitor public announcements as new information warrants
- ◆ Continue monitoring response and recovery efforts
- ◆ Continue to monitor decontamination actions, if necessary
- ◆ Monitor evacuation status, if necessary
- ◆ State/local health department and HHS will ensure availability of medical care/other human services, crisis counseling, etc., if necessary

## EVACUATION ACTIONS

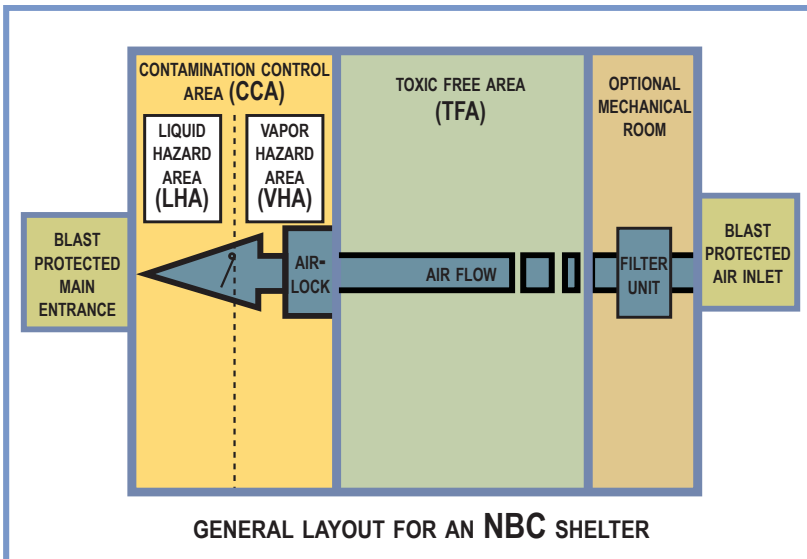
### PRIORITIES FOR EMERGENCY EVACUATION

- Priority I:** Ambulatory injured or ill personnel
- Priority II:** Non-ambulatory injured or ill personnel
- Priority III:** Pregnant women and families
- Priority IV:** Other non-critical personnel

Should the entire installation require evacuation, the Installation Commander, assisted by Security Forces, Fire, Civil Engineers/Public Works and Transportation will coordinate and control the movement of personnel off the installation to other locations through the EOC and the local community's EOC. Installation evacuation/shelter-in-place plans will be initiated, if they exist, through MOUs/MOAs.

**Security Forces will lead the evacuation actions according to their own plans and knowledge of the installation.** Special considerations need to be made concerning civilian mutual aid assistance entry points and procedures into the installation and into the local community.

### SHELTER-IN-PLACE ACTIONS



(Figure from FM 3-11.34)

## PROTECTION-IN-PLACE OPTIONS

FOR THIS FUNCTION:	USE THESE ITEMS:	WITH THIS GUIDANCE:
Sealing Air Infiltration Points	<ul style="list-style-type: none"> <li>- Plastic Canvas</li> <li>- Plastic Sheeting</li> <li>- NBC protective covers (NBC-PC)</li> <li>- Foam-In-Place</li> <li>- Gasket forming materials (silicon, rubber gaskets, foam sealing materials)</li> </ul>	<ul style="list-style-type: none"> <li>- Place plastic around inside of windows and doors.</li> <li>- Close holes and windows with plywood; seal with materials available (i.e. duct tape).</li> <li>- Spray foam into doorways and windows, overlapping all sills and openings. Foam spray will not work well on overhead horizontal surfaces.</li> <li>- Spray foam into all air intakes and exhausts.</li> <li>- Cut and fit plastic as necessary; use duct tape to hold in place.</li> </ul> <p>CAUTION: Turn off HVAC systems before sealing air intakes/exhausts.</p>
Individual Covers	<ul style="list-style-type: none"> <li>- Plastic Sheet</li> <li>- Plastic Canvas</li> <li>- NBC-PC</li> <li>- Military/Civilian Wet Weather</li> <li>- Gear/Rain Suits (Rubber)</li> <li>- Ponchos</li> <li>- Modular Chemically Hardened Tent (MCHT)</li> <li>- Tent extendable modular personnel tents (TEMPER)</li> </ul>	<ul style="list-style-type: none"> <li>- Cut plastic sheet, plastic canvas, and NBC-PC 1.5 times taller and wider than the individual using it. Use as cover to provide protection-in-place for personnel caught in the open.</li> <li>- Make rain suits/ponchos part of daily work uniform, use in conjunction with plastic sheet, plastic canvas, and NBC-PC.</li> <li>- Pre-position MCHT and TEMPER throughout fixed sites, concentrate on areas with few approved shelters, but high personnel concentrations.</li> </ul>
Material Covers	<ul style="list-style-type: none"> <li>- Plastic Sheeting</li> <li>- Plastic Coated Canvas</li> <li>- NBC-PC</li> <li>- Large Area Shade Systems</li> <li>- Large Area Maintenance Shelter</li> </ul>	<ul style="list-style-type: none"> <li>- Cut and fit as necessary, use duct tape to hold in place.</li> <li>- Place covered material under shade systems or shelters for additional protection.</li> </ul>
Shelters	<ul style="list-style-type: none"> <li>- Container Express (CONEX)</li> <li>- Military-Owned Demountable</li> <li>- Container (MILVAN)</li> <li>- Modular command post system (MCPS)</li> <li>- Modular General Purpose Tent System (MGPTS)</li> </ul>	<ul style="list-style-type: none"> <li>- Place CONEX/MILVAN at regular intervals around fixed sites. Attach plastic sheet/NBC-PC to front of CONEX/MILVAN of sufficient size to cover the opening and to act as a liquid barrier. Attach weight (piece of wood/iron bar, etc) to bottom edge of plastic to hold in place when being used.</li> <li>- Erect MCPS/MGPTS at specified intervals (based on personnel concentrations).</li> <li>- Use these measures in conjunction with individual and material covers.</li> </ul>
Vertical Separation	<ul style="list-style-type: none"> <li>- Plastic Sheeting</li> <li>- Plastic Coated Canvas</li> <li>- NBC-PC</li> </ul>	<ul style="list-style-type: none"> <li>- Move operations to upper floor/levels.</li> <li>- Block entryways and openings with multiple sheets of plastic. Place a plastic sheet at foot of stairs, another partway up the stairs, a third at the top of the stairs, etc.</li> </ul>

CAUTION: The duration of protection using these measures is not quantified and is provided for emergency situations only. This table does not preclude using other expedient measures afforded by available materials and common sense.

From FM 3-11.34, Table J-2

## SITUATION REPORT (SITREP)

**DO NOT DELAY SENDING THE REPORT WHILE WAITING FOR COMPLETE OR ADDITIONAL INFORMATION!**

### EXAMPLE SITUATION REPORT [SITREP]

1. Name, physical address and mailing address of facility
2. Name and telephone number of qualified individual to be contacted for further information
3. Name and telephone number of person making report
4. Date/time and location of incident
5. Identification of type of event being reported (CBRNE)
6. Area affected and wind conditions
7. Casualties
8. Property damage/status of critical facilities
9. Response actions (ongoing, anticipated and recommended/requested)
10. Agencies notified

## OPREP-3 PINNACLE REPORT

### **FROM FM 3-11.21:**

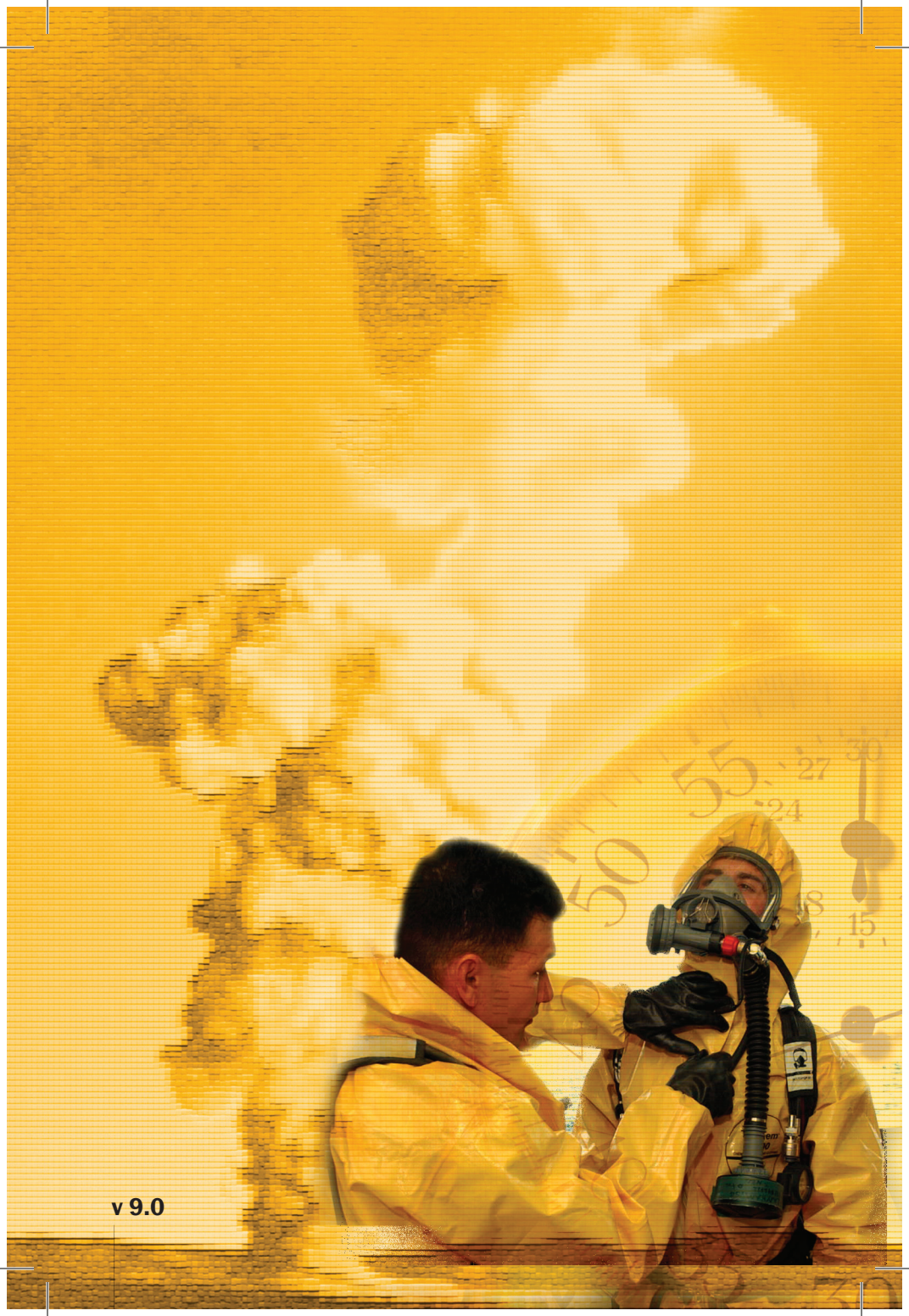
According to Chairman of the Joint Chiefs of Staff Manual 3150.03, the installation will submit an operations report (OPREP)-3 in the event of a terrorist WMD incident directly to the NMCC. The goal is to make initial voice reports within 15 minutes of an incident, with message reports submitted within 1 hour of the incident. The initial report must not be delayed to gain additional information. Follow-up reports can be submitted as additional information becomes available. The installation will submit voice reports sequentially to the NMCC, appropriate Commanders, and the reporting unit's parent service and intermediate superior command. Conference calls or concurrent telephone calls should be considered if no delays are encountered and security can be maintained. There will remain an open line between the NMCC and the installation throughout the duration of the incident. All OPREP-3 will be submitted as soon as possible after an event or incident has occurred and sent at FLASH or IMMEDIATE precedence. Message Address: JOINT STAFF WASHINGTON DC//J3 NMCC//.

## REFERENCES

- National Response Framework*. Department of Homeland Security. January 2008.
- National Incident Management System*. Department of Homeland Security. December 2008.
- Joint Publication 3-11, Joint Doctrine for Operations in Nuclear, Biological, and Chemical (NBC) Environments*. August 2008.
- Joint Publication 3-40, Joint Doctrine for Combating Weapons of Mass Destruction*. 10 June 2009.
- CJCSM 3150.03, Joint Reporting Structure and Event and Incident Reports*. 19 June 1998.
- DoDI, Number 2000.18, DoD Installation CBRNE Emergency Response Guidelines*. ASD(SOLIC). 4 December 2002.
- FM 3-11.21, MCRP 3-37.2C, NTP 3-11.24, AFTTP(I) 3-2.37, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical Aspects of Consequence Management*. 12 December 2001.
- FM 3-11.34, MCWP 3.37.5, NTP 3-11.23, AFTTP(I) 3-2.33, Multiservice Procedures for Nuclear, Biological, and Chemical (NBC) Defense of Theater Fixed Sites, Ports and Airfield*. 29 September 2000.
- Medical Management of Radiological Casualties Handbook*. Military Medical Operations, Armed Forces Radiobiology Research Institute. Bethesda, Maryland. April 2003.
- Defining Personal Protective Equipment*. Office of Occupational Safety and Health, Department of Labor. Regulations (Standards-29 CFR) Part 1910.120 AppB. 22 August 1994.
- Chemical/Biological/Radiological Incident Handbook*. Interagency Intelligence Committee on Terrorism (IICT). October 1998.
- DoD Concept of Operations for CBRNE Defense Supporting US Military Installation and Facility Preparedness*. October 2003. (Draft)
- CNI 3440.17, Navy Installation Emergency Management Program*. 22 July 2005.
- Advanced Disaster Medical Response: Manual for Providers*. Ed. Susan M. Briggs. Harvard Medical International. Boston, 2003.







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