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Mass Fatality Management in the United States

Mr. Michael Luke
NORAD and USNORTHCOM
Joint Mortuary Affairs Officer
Logistics and Engineering Directorate/J4

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What is a Mass Fatality Incident

Mass Fatality Incident is an emergency management term used to identify an incident involving more dead bodies and/or body parts than can be located, identified, and processed for final disposition by available response resources.



- September 11, 2001 – 2700+ (50,000)
 - 22,000/60-70%
- Indian Ocean Tsunami (2004) – 157,000+
- Hurricane Katrina (2005) – 1,836 (10,000)
- Ft. Hood (2009) – 13
- Haiti Earthquake (2010) – 230,000 +
- Philippine Typhoon (2013) – 6,000+



Why is Fatality Management Important?

- Identify who died and manner of death
- Address public health concerns (Management of Dead Bodies in Disaster Situations 2004, Pan American Health Organization)
- Make remains and personal effects (PE) available to law enforcement for evidence
- Return remains/PE to next of kin (NOK)
- Satisfy legal requirements (Death Certificate)
- Respect for dead and living (Honor/Compassion)
- Ensure order, confidence, recovery and morale of the country (death's as defining the incident)

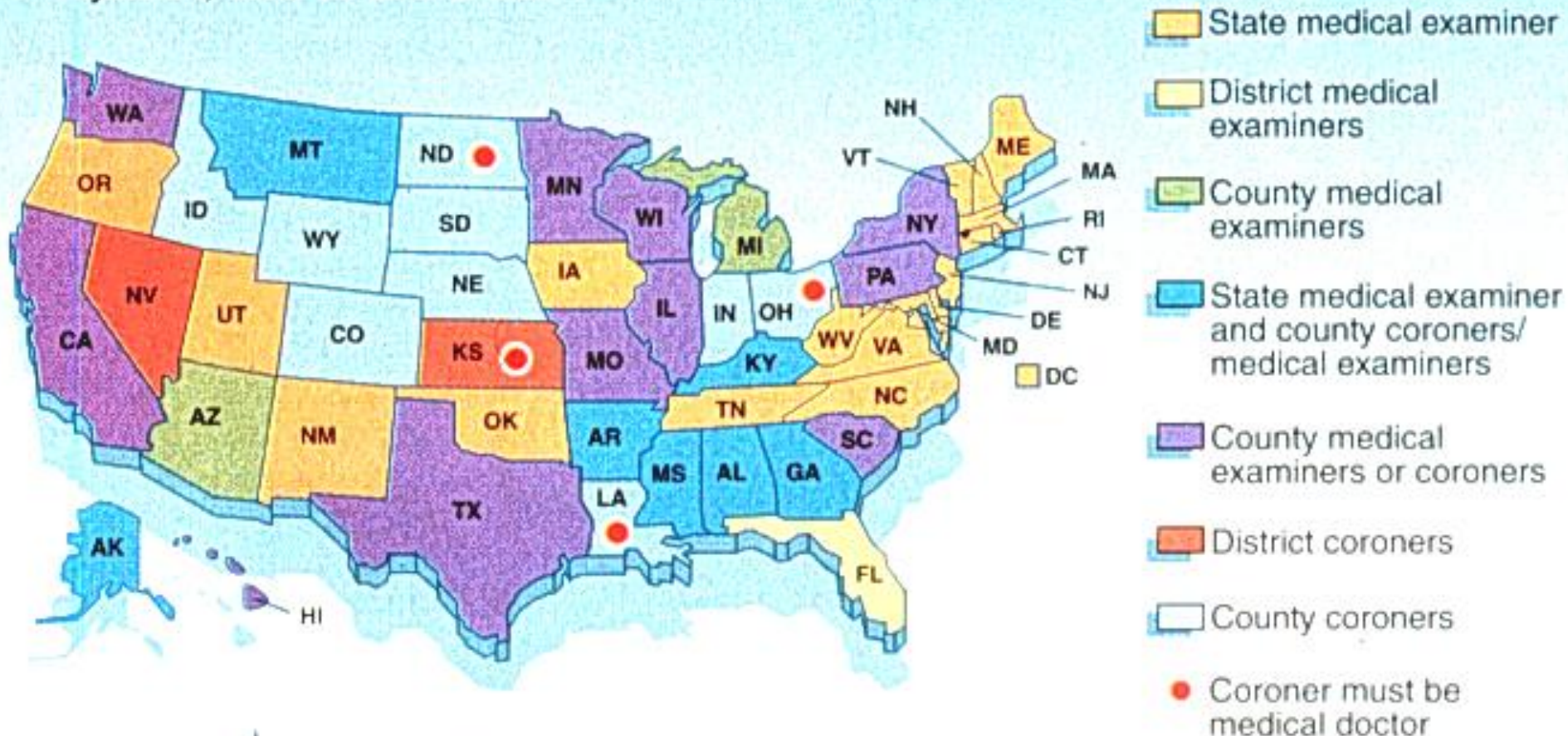


General US Fatality Information

- In most States, the Medical Examiner and/or Coroner is legally responsible for operations associated with the identification, processing, and disposition of HR's
- Public Health can have significant responsibilities and authority related to FM
- Religious and cultural customs on death can differ
- Each state and territory has different laws as to how remains will be processed.

The State of Death Investigations

The use of medical examiners or coroners varies not only among states, but even within states. Twenty-two (including the District of Columbia) use some type of medical examiner system, 11 use some type of coroner system, and 18 use a mix.



Source: U.S. Centers for Disease Control



Primary Federal MFM Asset - DMORT

- Disaster Mortuary Operation Response Team (DMORT).
 - Under HHS through the NDMS.
 - Works under the guidance of local authorities.
 - Skilled intermittent federal employees federalized for disasters and recognized by all states. Approx: 60 members – dentists, funeral home directors, medical examiners, morgue techs., anthropologists, law enforcement. Become GS employees while assigned to a DMORT mission.
- 10 Regional Teams
- 3 specialty teams:
 - All Hazards Team (formally WMD team)
 - Family Assistance
 - Deployable Portable Morgue Unit (DPMU) (X3)
- **DO NOT RECOVER HUMAN REMAINS**



1994 -Southeast Georgia Floods•1995 -Oklahoma City Bombing
•1996 -Centennial Olympic Games•1996 -Republican
Convention•1996 -Democratic Convention•1997 -Presidential
Inaugural•1997 -Guam Air Crash•1998 -State of the Union•1999
Oklahoma Tornadoes•1999 Hurricane Floyd•1999 Egypt Air Flight
990 •2000 Alaska Air 261•2000 Presidential Conventions•2001
State of the Union•2001 World Trade Center•2001 Summerset
County PA•2002 World Trade Conference•2002 Tri-State
Crematory•2002 Hurricane Lilli•2003 US Air Commuter
Crash•2003 Space Shuttle Columbia•2003 Rhode Island
Nightclub Fire•2004 Multiple Hurricane Responses•2004
Missouri Plane Crash•2005 Hurricane Katrina, Rita, Wilma•2006
Com Air Crash, Lexington, KY, •2009 Colgan Air flight 4307
Crash, Buffalo, NY •2010 Haiti earthquake, 2012 Joplin, MO



United States Army Units

<u>Unit</u>	<u>Auth</u>	<u>Component</u>	<u>Location</u>
54 th QM Mortuary Affairs Company	170	Active	Fort Lee, VA
111 th QM Mortuary Affairs Company	203	Active	Fort Lee, VA
311 th QM Mortuary Affairs Company	170	Reserve	Puerto Rico
246 th QM Mortuary Affairs Co. (EAC)	176	Reserve	Puerto Rico
673 rd QM Mortuary Affairs Co. (EAC)	176	Reserve	Dover, DE
387 th QM Mortuary Affairs Company	170	Reserve	Los Angeles, CA
962 nd QM Mortuary Affairs Company (EAC) <ul style="list-style-type: none"> • Admin Spt, Maintenance, QM Spt Ops, Field Feed and Collection Platoons • Evacuation / Mortuary Platoon • Evacuation / Mortuary Platoon • Personal Effects Depot Platoon (Fort Richardson) 	176	Reserve FY12	HQs - Honolulu, HI 2 Platoons Oahu Guam American Samoa Alaska
1019 th QM Mortuary Affairs Company	203	Reserve FY 13	Staten Island, NY



US Army Mortuary Affairs Assets

- Mobile Integrated Remains Collection System (MIRCS)
- MIRCS – ISO-contained/air transportable
- Receive human remains (HR) and associated Personal Effects (PE)
- Establish tentative identification
- Store HR in refrigeration unit



- MA Contaminated Remains Mitigation Site (MACRMS)
- **Not field tested or approved**
- **Reduce contamination – safe**
- Capabilities: 5-10 HR in a 12 hour period for each
- **3 commercial of the shelf (COTS) sets;** Fort Lee, VA (1-Deployable/2-Training)
- **Two COTS sets;** Ramey Base, PR (1-Deployable/1-Training)
- Configuration varies based on CBRN threat
- **Army only mission;** requires significant theater level support

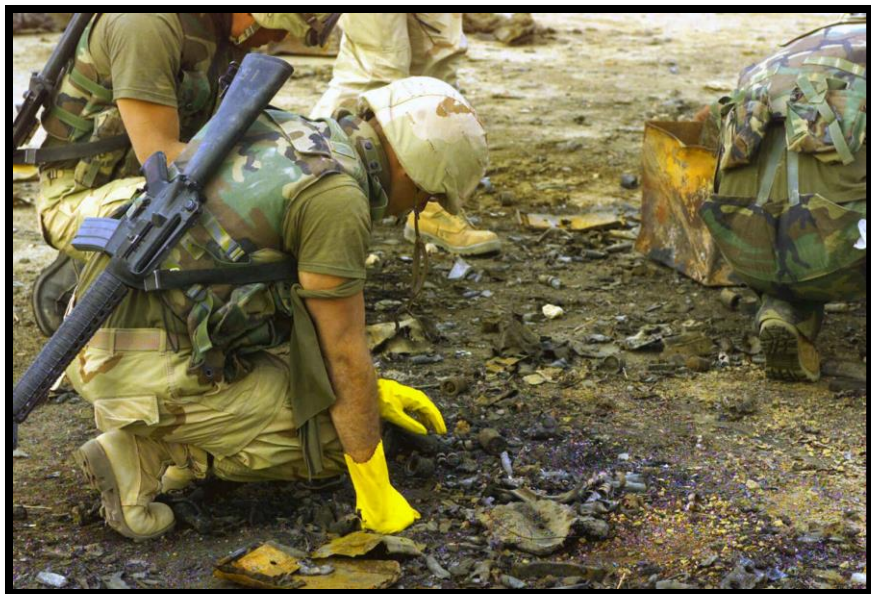




U.S. Marine Corps MA Units

Reserve Personnel Retrieval and Processing Company (PRP)
USMCR 4th MLG HQSVC BN DET PRP Company Smyrna, GA
USMCR 4th MLG HQSVC BN PRP Company Naval District-
Washington, DC

- Search and Recovery Capability (collapsed structure)
- Collection Point Operation
- Be Prepared to Provide Civil Support and TMEP Operations





U.S. NAVY MA Units

Navy Morticians (military and civilian) are assigned to Navy Casualty with duty locations at:

- BUPERS in Millington, TN
- Dover Port Mortuary at Dover AFB, DE
- USMC Casualty Branch at Quantico, VA
- Four Navy Mortuaries (Guam; Naples, IT; Rota, ES and GITMO)

Staffed primarily for **current death (peace time)** response





U.S. AIR FORCE MA SEARCH AND RECOVERY (SAR) TEAMS

Force Support Squadron Personnel trained in contingency MA operations

- Set-up and operate MACP
- Manages the Base Honor Guard Program
- All Components (Active/Reserve/Air National Guard); have a **non-CBRN** SAR capability
 - Consist of 11 person team (**2-management and 9-workers**)
 - Provide SAR capability for their respective installations (aircraft mishaps)





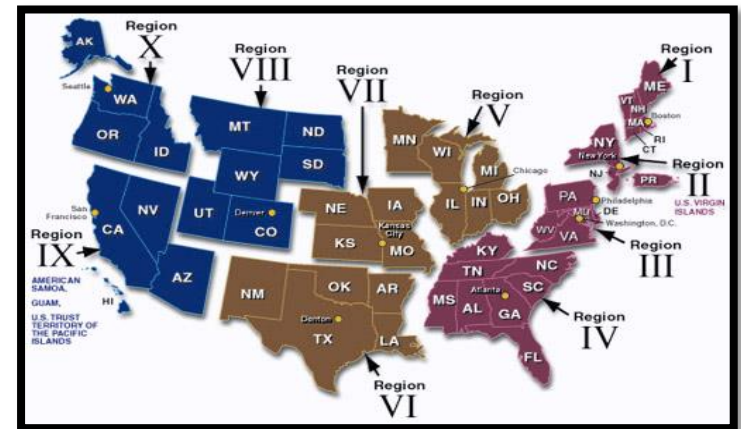
AIR NATIONAL GUARD (T32/SAD) FATALITY SEARCH AND RECOVERY TEAMS (FSRTS)

CBRN/Non-CBRN (T-32 and T-10 quick response mission)

- Perform hazardous recovery
- Do not process HR
- Hand off to proper collection point

FSRT members requires training and certification (hazmat operational level)

- 27 (11 PAX) teams; aligned with the 10 FEMA Regions
 - **Stand alone or as** part of the CBRN Enhanced Response Force Package (CERFP)
 - Under State control T-32; may act as initial response





The Armed Forces Medical Examiner System

- Only Medical Examiner system authorized to support DoD and other Federal agencies
- Only world-wide Medical Examiner system w/ jurisdiction in multiple localities
- Integration of pathology w/investigations, DNA, forensic toxicology, and surveillance provides an unprecedented capacity for fast, accurate, high volume case processing
- Dover Port Mortuary
 - Responsible for the return of all DOD personnel and dependents from:
 - Overseas contingency operations
 - Overseas deaths (when directed or requested)

- Provide DoD and other Federal agencies comprehensive medicolegal investigative services
- Determine cause & manner of death
- Identify the decedent
- Provide a full accounting
- Improve remains survivability
- Quick reaction force



Haiti 2010



Immediate Issues

- A MFI function has the potential to be a very complex and demanding activity
- Managing a MFI will likely be one of the worst problems senior leaders will face
- Processing the fatalities can be technically complex taking months, even years to accomplish
- The biggest/most immediate challenge in an MFI is the demand for **immediate and effective communication** with decedents' families, friends and the public
- Know challenges:
 - + Security and law enforcement + CBRN Hazards + Communications and Media + Public Health + Leadership, Subject Matter Expertise and Advisors + Fear

Recovery



Transportation



Storage



Processing and Identification





Immediate Issues – Contaminated Human Remains

Bottom Line: DoD does not have the capability to safely and properly recover, identify, and return contaminated human remains (CHR) to families from OCONUS locations. (**UPDATE:** DoD C-CHR Interim Assessment, 20 Dec 2013)

- DoD lacks capability to:
 - Safely perform MA tasks, which support positive ID.
 - Mitigate the hazards (internal & external).
 - Transport contaminated remains back to US (or within US)
- Current policy on contaminated remains:
 - Perform Mortuary Affairs (MA) mission (supports positive ID).
 - If cannot decontaminate, inter in theater as a last resort.



Army Role: DoD EA & specified task to perform MA mission leading efforts to integrate agencies to address non-materiel gaps & issues for closing the overall CHR gaps.



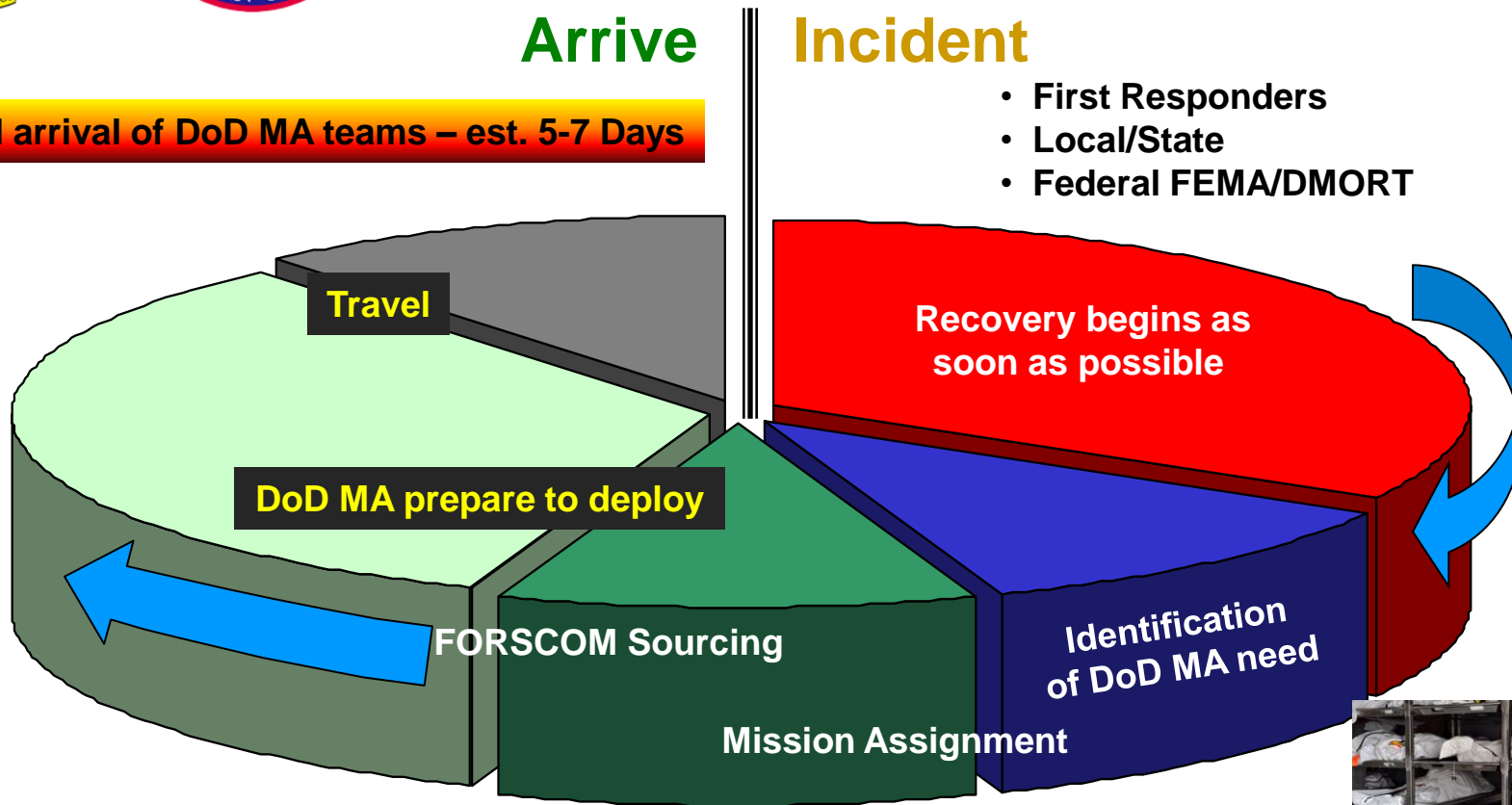
When will DoD MA assets arrive?

Arrive

• Initial arrival of DoD MA teams – est. 5-7 Days

Incident

- First Responders
- Local/State
- Federal FEMA/DMORT



5-7 days = estimated arrival of DoD MA support

• Remains will require storage, to await processing/ID





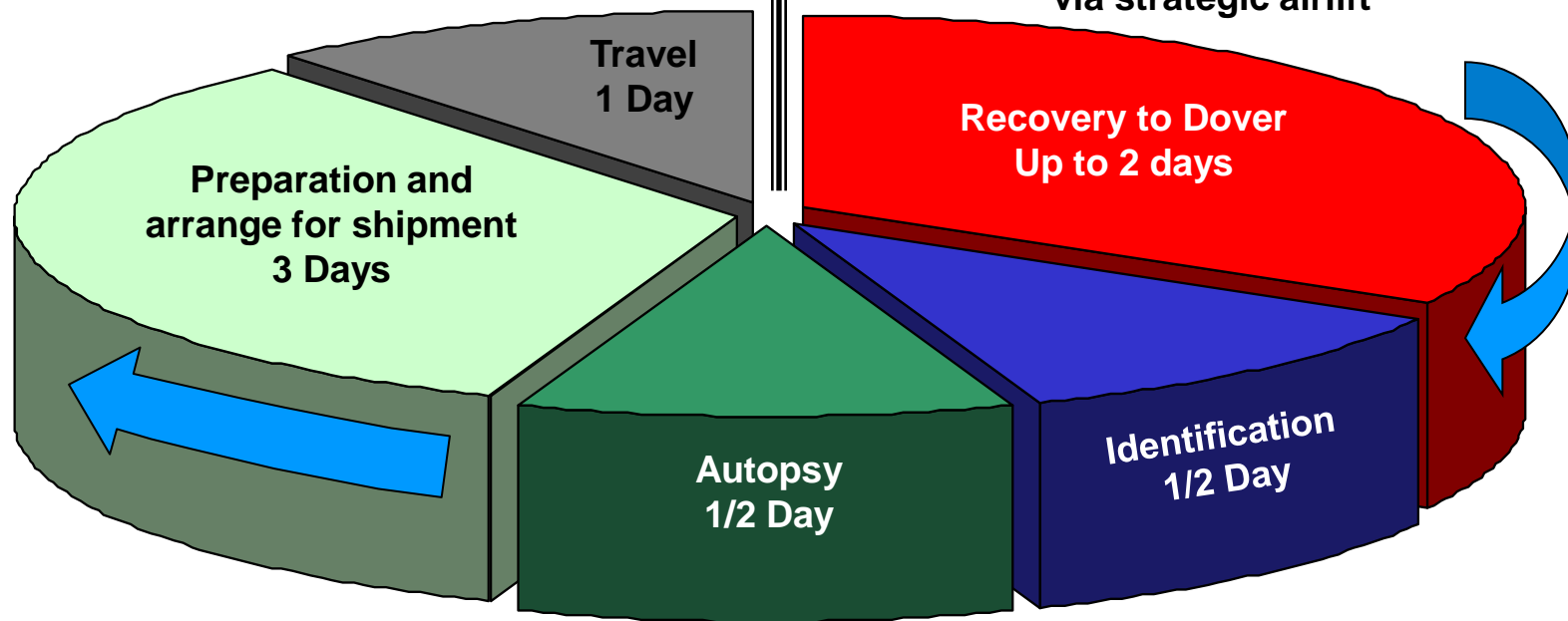
Remains Timeline Theater of Operations

Home

- Escort departs Dover AFB w/ remains to receiving funeral home

Incident

- Recover from incident site
- Theater transportation to Dover AFB via strategic airlift



- Disposition obtained from family
- Remains prepared (embalmed)
- Remains dressed /casketed
- Escort launched to Dover

7 days = average
remains processing time

- Remains arrive at Dover and begin processing for ID



What does Human Remains Processing mean in DoD?

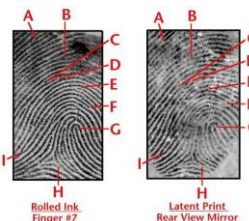
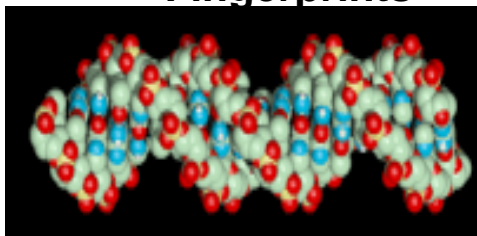
Tentative ID

- Done in a Theater of Operations
- Achieved through:
 - ID Tags/Card
 - Uniform
 - Statement of Recognition
 - Manifests

Positive ID

Only done by EXPERTS at a Mortuary!

- Comparison of:
 - Anti-Mortem Records
 - Post-Mortem Records
- Achieved by:
 - Deoxyribonucleic Acid (DNA)
 - Nuclear DNA (nucDNA)
 - Mitochondrial DNA (mDNA)
 - Dental
 - Fingerprints



Mortuary Process

Preparation
Restoration
Cosmetics
Embalming
Dress
Cremation
Casketing
Transport



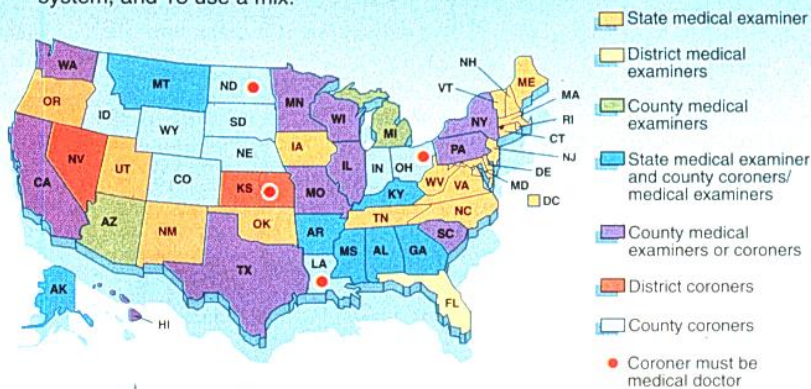


What does Human Remain Processing mean in local ME/C?



The State of Death Investigations

The use of medical examiners or coroners varies not only among states, but even within states. Twenty-two (including the District of Columbia) use some type of medical examiner system, 11 use some type of coroner system, and 18 use a mix.



Source: U.S. Centers for Disease Control

It can vary from state to state, county to county and city to city



Primary Objectives in the Successful Management of a MFI

Establish jurisdictional authority with regard to mass fatality management (MFM) operations.

Ensure all MFM operations are conducted in a respectful, dignified and safe manner.

Public Expectation

Provide family and friends of potential victims with a single, centralized mechanism for reporting and communicating directly with the government.

Provide families with factual and timely information in a compassionate manner, in advance of any public release.

Establish and support a system for Family that allows for accurate/efficient acquisition of ante-mortem data

CSI Affect

Conduct MFM task in accordance with established forensic standards:

- Document, record, investigate, recover, mitigate any hazards.
- Accurately determine the cause and manner of death.
- Perform the accurate and efficient identification of victims.
- Support judicial, public health and investigative objectives and requirements.

Conduct the rapid return of decedents to their legal next of kin, when possible.

Provide an on-going mechanism for family outreach.

CNN Affect



State of Mass Fatality Management Preparedness in the U.S

Is DOD ready to conduct DSCA MFM Operations?

- The US has no comprehensive Mass Fatality Management plan for a mass fatality incident – Hurricane Katrina observation.
- DoD has a limited MFM capability in support of a DSCA mission in the US.
- DoD assets lack the capability to sufficiently decontaminate human remains or transport CHR to facilities, so they can be decontaminated.
- DoD must work with interagency partners in developing a National level plan addressing operational guides and protocols
- The national MFM capability is fragmented, lacks standards protocols and scientific/CHR related knowledge.



Initial Prescription for MFM

- A National MFM Strategy is required using the “whole of community” concept.
- CMFM requires it’s own ESF designation.
- Experimentation is needed to determine “what right looks like” for MFM incidents.
- Identify and develop “The Messaging of MFM” for leaders.
- Training events need to **include C/ME’s participation** in both the preparedness, response and recovery phases.
 - **LA and Alameda counties, CA & NYC**
 - Knowledgeable MFM Controllers/Observers/Evaluators
 - “Perfect Practice Makes Perfect”
 - MFM101 education for decision-makers and planners



Moving Forward

What USNORTHCOM is doing about it

Partnering with DHHS, FEMA, OSD, VA, Joint Staff J-4, HQDA G4, other federal agencies, local, state, and private industry:

- MFM Executive Steering Committee (Chartered)
- MFM Interagency Working Group (MFMIWG) conducting analytic efforts to address requirements:
 - Conduct a Capabilities Based Analysis (CBA) to determine requirements, capabilities, gaps, and recommended solutions across all MFM stakeholders.
 - Assess the effectiveness and standardization of MFM training to establish minimum standards for interagency personnel.
 - Drafting a National MFM guideline plan for use by MFM planners across the US

Bi-monthly meetings in DC

Local reach-out – CA, AK, NYC, NV

2014 Regional MFM Response System Exercise (DHS National Preparedness Scenario specific to MFM) – June 2014



Final Thoughts

”We MUST be prepared for a mass fatality catastrophe, the need for partnered efforts in the U.S. mass fatality management planning has never been more evident. The Department of Defense will assist; however, our capabilities are limited. We need a united comprehensive National plan that spells out responsibilities in dealing with these challenges, the American people will not accept less than a dignified, respectful and proper disposition of their loved ones”

BG(P) Timothy McKeithen, NORAD and USNORTHCOM Director of Logistics and Engineering