# MASS FATALITY INCIDENTS (MFI): THE ROLE OF FORENSIC ANTHROPOLOGISTS AND DMORT IN MFI

Donna C. Boyd, Ph. D., D-ABFA Radford University, VA Squad Leader, DMORT Region III

#### MFIs defined:

- "a relative term and hinges upon the capabilities of the local community to administer to the injured and dead" (Steadman 2009);
- are "when the number of dead exceeds the capacity of local agencies to manage them" (Sledzik and Willcox 2009)
- All are unique, but share commonalities

# FORENSIC ANTHROPOLOGISTS AND MASS FATALITY INCIDENTS

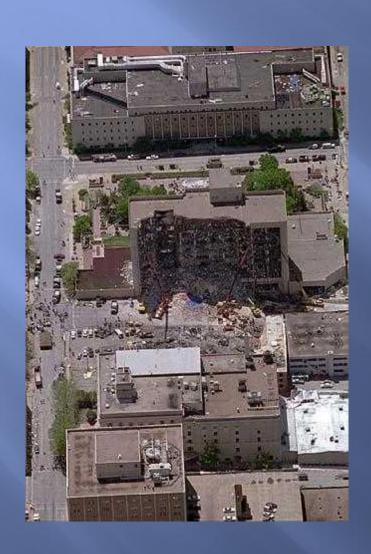
#### The Big Thompson Flood, Colorodo (1976)



#### Hardin Cemetery Flood, Missouri (1993)



#### Terrorist Attacks





#### Noble, Georgia Crematorium (2002)





Spring 2005: The crematory site has been cleared, as shown in the photo above.

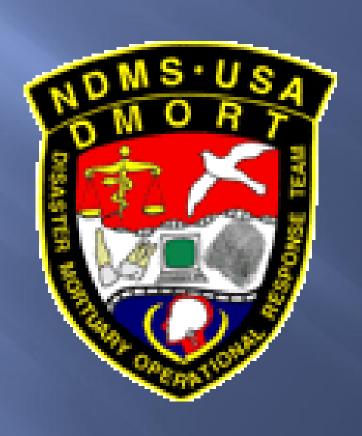
#### Hurricane Katrina, 2005



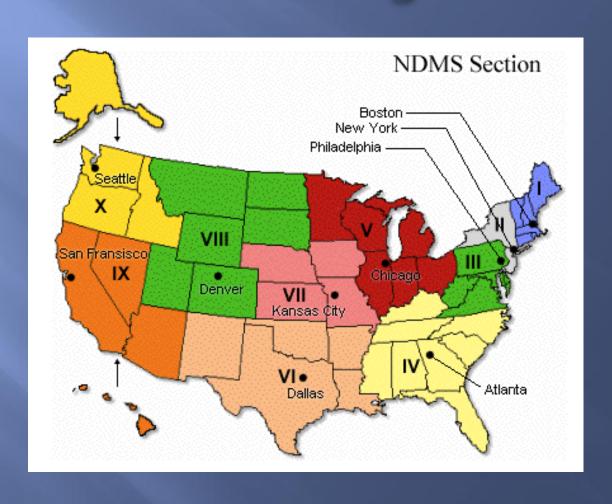
#### Port-au-Prince, Haiti (February, 2010)



### DMORT (Disaster Mortuary Operational Response Team)



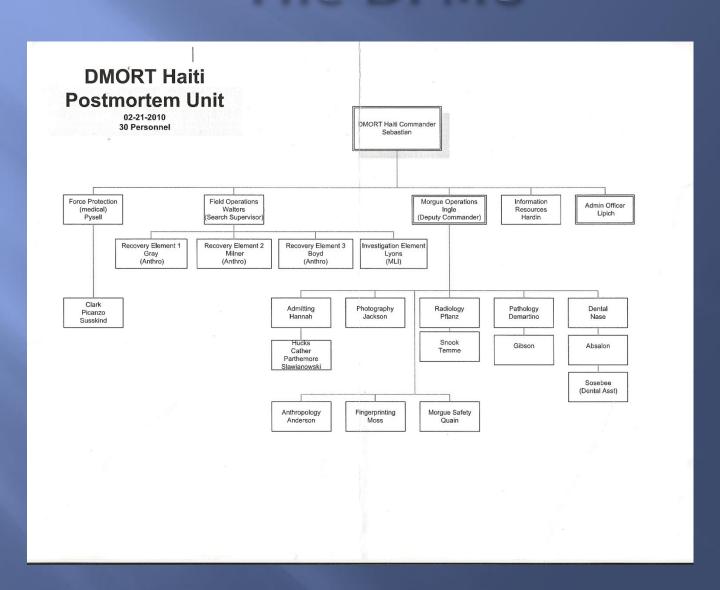
#### DMORT Regions



## DMORT OPERATIONAL PROTOCOL:

**Incident Command System** 

#### The DPMU











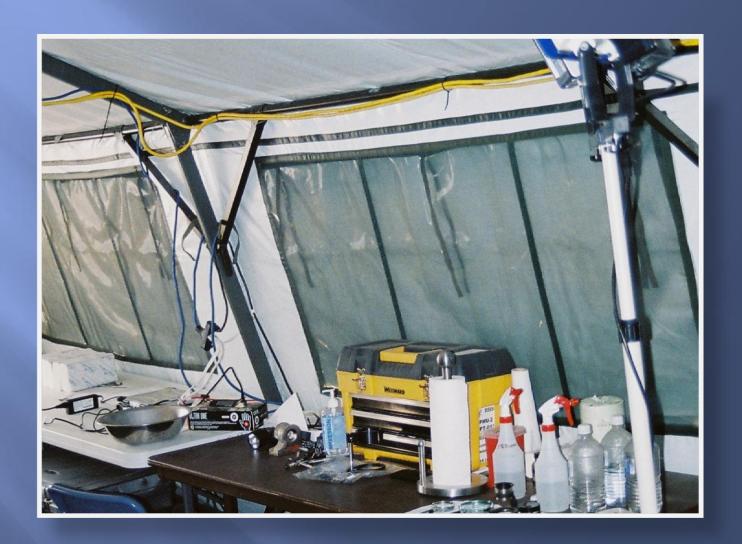
#### DMORT Specialists

- Medical Examiners
- Medicolegal Death Investigators
- Forensic Anthropologists
- Forensic Dentists
- X Ray Technicians
- Funeral Home Personnel
- Photographers
- Fingerprint Specialists
- Family Assistance Center















#### Morgue Data Sheets

Vo!	Site Recovery #		VIP/DMOI Victin	n	ident_ Incident Da	
-	Put N/A in all unused t	lields.	Site Recove	ry Form Morg	ue Referen	ce No.
Date: _		Description of F	Remanis:			,
	MM/DD/YYYY	Recovery Grid #	<b>#</b> :	GPS of Recovery:	:	
Time:	24 hour (00:00)	Place / Address				
	n: select all that appl					
	sied Previously ed-Partial Thickness	☐ Decomposed  ☐ Embalmed	☐ Mummified ☐ Saponified	Skel Position	Remains Fou	ind In:
	d-Full Thickness	Fragmented	Scavenged	Skel		
Crema	ains	Fresh	Skin Slippage			
stimate	ed Age: O Baby/C	Child O Adolesc	ent O Young Ar	dult O Middle Ag	ed O Elder	rly O No Estimate
				timated Race:	cu O Lidei	IV O NO Estimate
lothing		O T GINGIO O T	51710000000	- Tarata Tudo.		
Remains	s:					
brief de	scription)					
ersona	I Effects		-		Port -	
n Rema						
brief de	scription)					
	ems with s: (specify					
describ						
/ledical	Records Recovere	ed: O Yes O No	o			
Recover	у					
Commen	nts:					
Presur	mntive					# Photos
		Last	First	Middl	le	Photo File Name
FIELD		Last				There The Hame
	D ID:					
FIELI	D ID:	B (MM/DD/YYYY)	SSN	ID# / Drivers licen	se # / State	
FIELI	D ID:		SSN	ID# / Drivers licen	ise # / State	
FIELI	D ID:		SSN	ID# / Drivers licen	sse # / State	
FIELI	D ID:	B (MM/DD/YYYY)	SSN			
ID Base	D ID:  Dol  Dol  Name and		SSN	ID# / Drivers licen	Date Four	nd Time Found
FIELI	D ID:  od On:  Name and  By:	B (MM/DD/YYYY)  d Agency (if applies)	SSN	Phone #	Date Four	
FIELI ID Base ound By	DID: DOID: D	B (MM/DD/YYYY)	SSN			
FIELI ID Base ound By	DID: DOID: DOID: DOID: Name and DOID: Name and To:	B (MM/DD/YYYY)  d Agency (if applies)	SSN	Phone #	Date Four	
FIELI ID Base Cound By Reported	DID: DOID: D	B (MM/DD/YYYY)  If Agency (if applies)  If Agency (if applies)  If Agency (if applies)	SSN	Phone #	Date Four	
FIELI ID Base ound By Reported Reported	DID: DOID: D	B (MM/DD/YYYY)  d Agency (if applies)  d Agency (if applies)	SSN	Phone #	Date Four	
FIELI ID Base Cound By Reported Recov	DID: DOID: DOI Name and To: Name and Name and To: Name and Agered by: Ager	B (MM/DD/YYYY)  If Agency (if applies)  If Agency (if applies)  If Agency (if applies)	SSN	Phone #	Date Four	
ID Base ound By deported deported Recov Tea	DID: DOID: D	B (MM/DD/YYYY)  If Agency (if applies)  If Agency (if applies)  If Agency (if applies)	SSN	Phone #	Date Four	
FIELI ID Base Yound By Reported Reported Recov Tea Team	DID: DOID: D	B (MM/DD/YYYY)  If Agency (if applies)  If Agency (if applies)  If Agency (if applies)	SSN	Phone #	Date Four	
FIELI ID Base Cound By Reported Reported Recov Tea Team Membe	DID: DOID: D	B (MM/DD/YYYY)  If Agency (if applies)  If Agency (if applies)  If Agency (if applies)	SSN	Phone #	Date Four	

	Examining	Anthropologist & Region	Anthropo	logy 1.	Incident			\$7.1V
	Scribe		Page 1	of 2	lorgue Refer	ence No.		
Lo	E	Estimated Age Range Upper Age R	ange	☐ Male	☐ Male pos		Unknown	
☐ Burne		hickness	nted Skin Slip Skeleton ed Skeleton	jed ppage nized-Partia nized-Full				
,		Skeletal Race:		Skel	etal Build:	E	stimated Sta	ture
O Caucas O Negroid O Asian	d O His	erican Indian Other panic known		all/Gracile dium/Interme	O Large.		(cm)	
			Missing P	arts				
Mandib	Cranium ole Mandible	R Upper Arm Partial R Upper Arm R Forearm Partial R Forearm R Hand	L Forearm Partial L Fore	er Arm	R Upper Leg Partial R Upper I R Lower Leg Partial R Lower I R Foot	Leg Par		
-		Skeletal Features (	Pathology, Hea	led Traur	<b>na, Unique Ic</b> Jpper Leg	lentifiers,	erled	-
Mandib	Cranium [ ble [ Mandible [ Torso [	Partial R Upper Arm R Forearm Partial R Forearm R Hand	☐ L Opper Am ☐ Partial L Upper / ☐ L Forearm ☐ Partial L Forear ☐ L Hand ☐ Partial L Hand	Arm	rtial R Upper Leg Lower Leg rtial R Lower Leg Foot rtial R Foot	Partial L Low Partial L Foot Partial	L Upper Leg er Leg L Lower Leg L Foot	
*		ribe Below			Used O Y	es O No		
Unique	Skeletal	Features: (include lo	cation, type and d	escription)				
		,						
	,							

		Anthropology 2.				
	Scribe	Page 2 of 2 Morgue Reference No.				
	Exam Date:	TO CHANGE AND A COMMENT OF THE				
Eviden	ce of Ante Mortem Fractures (	Old Fractures) O Yes	O No			
	<u> </u>					
					1	
Skeleta	al Trauma: (include location, type	and description)				
	*					
Race /	Ancestry Based On:	es.				
	-					
Age Ba	sed On:					
Age Ba	sed On:					
Age Ba	sed On:			ű.	5 g	
Age Ba	sed On:				5 A	
		(s)			N 4	
	sed On:  Based On: (include measuremen	ts)			5 4	
		ts)	, and a			
		ts)				
		ts)				
Stature		ts)				
Stature	Based On: (include measuremen	ts)				
Stature	Based On: (include measuremen	ts)				
Stature	Based On: (include measuremen					
Stature	Based On: (include measuremen					
Stature	Based On: (include measuremen					
Stature	Based On: (include measuremen					
Stature	Based On: (include measuremen					
Stature	Based On: (include measuremen					
Stature	Based On: (include measuremen					

#### Difficulties in MFIs

- Safety and security
- Loss of infrastructure
- Organizational chaos
- Miscommunication between agencies
- Leadership questions/issues
- Collection and retention of evidence
- Chain of custody
- Safe and humane recovery of deceased
- Family counseling and communication

#### Port-au-Prince, Haiti







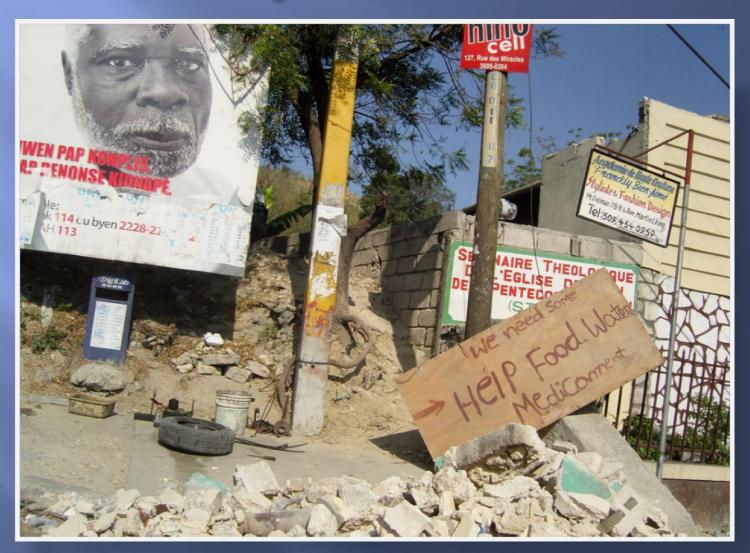
#### Loss of Infrastructure







#### Organization of Chaos



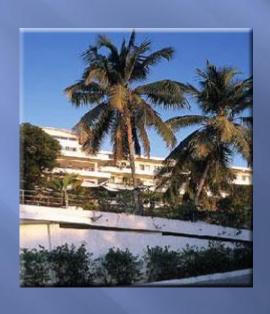




#### Humane and Timely Recovery of Deceased



### Hotel Montana





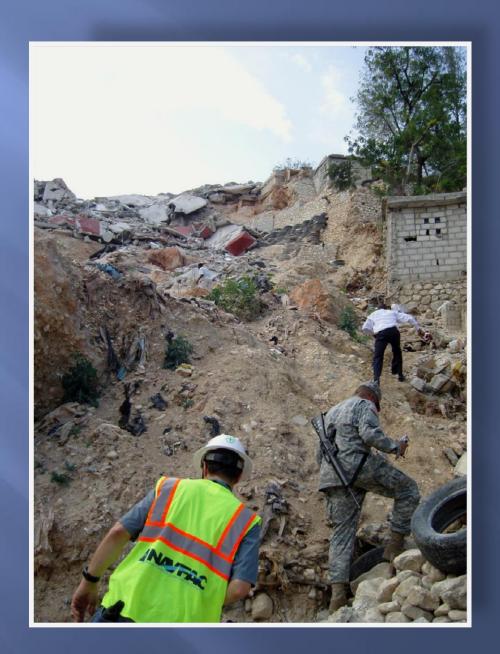
## Safe and Accurate Recovery of Deceased

















#### Need for Reconnaissance and Information



### Secondary Burials













## Managing the MFI

- Recognition of need for external assistance
- Transition from Search and Rescue to Search and Recovery
- Protocol for search, recovery, analysis, and identification of human remains and associated evidence
- Communication with and counseling for families

# Forensic Anthropology Skills in MFIs

- Devise protocol for search and recovery of human remains
- Locate, recognize, and recover human remains, especially those burned and fragmented
- Maintain context and chain of custody
- Train search personnel to recognize fragmented and burned human remains
- Provide field assessment of condition of remains
- Assist with morgue analysis of remains and victim identification



### Haiti-DMORT (February, 2010)

