

# SWGDAI

## Critical Literature in Disaster Victim Identification

### General Reports/Documents

#### ***Mass Fatality Incidents: A Guide for Human Identification***

<http://www.ojp.usdoj.gov/nij/pubs-sum/199758.htm>.

Produced by the National Center for Forensic Science with the assistance of a group of experienced mass fatality forensic responders, this guide aids the medical examiner or coroner in preparing disaster plans with a focus on victim identification.

#### ***Capstone Document: Mass Fatality Management for Incidents Involving Weapons of Mass Destruction***

[http://www.ecbc.army.mil/hld/dl/MFM\\_Capstone\\_August\\_2005.pdf](http://www.ecbc.army.mil/hld/dl/MFM_Capstone_August_2005.pdf)

Abstract: "This Capstone Document is to provide medical examiners and coroners (ME/Cs) and emergency managers guidance for responding to a mass fatality situation following a WMD terrorist incident. The findings and recommendations in this report mainly address managing chemically and biologically contaminated remains, and how the ME/C can develop incident-specific plans for managing catastrophic events. These guidelines are neither mandated nor required for State or local jurisdictions; rather, they are presented to provide technical and operational guidelines for communities and departments that are planning to respond to such events."

#### ***Death Investigation: A Guide for the Scene Investigator***

<http://www.ojp.usdoj.gov/nij/pubs-sum/167568.htm>

This booklet establishes guidelines for conducting death investigations. The focus of the guide is on the death scene, the body, and the interactive skills and knowledge that must be applied to ensure a successful case outcome (November 1997).

#### ***City of London Mass Fatality Plan***

<http://www.londonprepared.gov.uk/downloads/LMFPMMainBodyV3.pdf>

"The London Mass Fatality Plan is focused on facilitating the response to a 'sudden impact' event or 'emergency' which involves mass fatality. Designed to provide tactical options and guidance to all agencies responding to an incident involving mass fatality, the plan also provides additional options for dealing with incidents involving large numbers of human fatalities. It may also be used to cater for the response to an incident overseas which calls for the identification and repatriation of large numbers of UK nationals."

#### ***Management of Dead Bodies in Disaster Situations***

<http://www.paho.org/english/dd/ped/ManejoCadaveres.htm>

Comprehensive guide to a variety of mass fatality issues, including preparedness for mass death response, medicolegal work, health considerations in mass fatalities, sociocultural issues, psychological aspects, legal concepts, and several case studies from recent South and Central American disasters.

#### ***Mass Fatality Plan Checklist for Ministries of Health and National Disaster Offices***

<http://www.paho.org/english/dd/ped/deadbodies5checklist.htm>

The Pan American Health Organization has developed a checklist on mass fatalities that can serve as an annex to any National Health Sector Emergency Management Plan or National Disaster Management Plan. It is based on the London Resilience Mass Fatality Plan, 2006 and Management of Dead Bodies after Disasters: A Field Manual for First Responders. The checklist contains the essential elements that should be addressed by Ministries of Health and Disaster Management Offices as they develop a mass fatality plan. The plan does not need to be standalone; it can be an annex to the National Disaster Management Plan. As such, the mass fatality annex only needs to focus on elements unique to a mass fatality.

### **National Association of Medical Examiners Mass Fatality Plan**

[http://thename.org/index2.php?option=com\\_docman&task=doc\\_view&gid=24&Itemid=99999999](http://thename.org/index2.php?option=com_docman&task=doc_view&gid=24&Itemid=99999999)

NAME's Mass Fatality Plan is a template for jurisdictions creating a plan. Many of the forms are similar to those in use by DMORT.

## **Standard Operating Procedures**

### **Interpol Disaster Victim Identification Guide**

<http://www.interpol.int/Public/DisasterVictim/guide/default.asp>

A resource for general information on disaster victim identification primarily used in Europe and Middle East. Designed to encourage the compatibility of procedures across international boundaries, this guide gives practical advice on major issues of victim identification, underlining the importance of pre-planning and training.

### **Interpol DVI Forms**

<http://www.interpol.int/Public/DisasterVictim/Forms/Default.asp>

Forms used by Interpol DVI and reflective of the antemortem information typically collected from family members. The Interpol DVI Forms are available in English, French, Spanish, and Arabic.

### **WHO/PAHO Management of Dead Bodies After Disasters: A Field Manual for First Responders**

<http://www.paho.org/english/dd/ped/DeadBodiesFieldManual.htm>

This manual presents simple recommendations for non-specialists to manage the recovery, basic identification, storage and disposal of dead bodies following disasters, in addition to suggesting ways to provide support to family members and communicate with the public and the media. The principles outlined in this document are being implemented and promoted by a variety of organizations, including the Pan American Health Organization, the World Health Organization, the International Committee of the Red Cross and the International Federation of Red Cross and Red Crescent Societies.

### **DMORT: Flight 93 Morgue Protocol**

[http://www.dmort.org/FilesforDownload/Protocol\\_Flight\\_93.pdf](http://www.dmort.org/FilesforDownload/Protocol_Flight_93.pdf)

The morgue protocol from the DMORT response to the crash of United Flight 93 on September 11, 2001. The criminal nature of this event caused DMORT to alter some of its morgue operations, and this protocol was adopted for this response.

### **DMORT Standard Operating Procedures for NTSB Activations (November 2006)**

<http://www.dmort8.org/DMORT%20NTSB%20SOP%20Nov%202006.pdf>

This document delineates the general procedures used for DMORT operations when activated under an interagency agreement with the NTSB. They are designed to provide medical examiners, coroners, and other medicolegal authorities with the information they need to understand how DMORT operates in support of the local medicolegal authority in transportation accidents involving fatalities.

### **Florida Emergency Mortuary Operations Response System, Field Operations Guide**

[http://www.femors.org/docs/FEMORS\\_FOG\\_3rd\\_Edition\\_Final\\_010507.pdf](http://www.femors.org/docs/FEMORS_FOG_3rd_Edition_Final_010507.pdf)

## **Search and Recovery**

### **Forensic Processing of the Terrestrial Mass Fatality Scene: Testing New Search, Documentation and Recovery Methodologies**

Dennis C. Dirkmaat, Ph.D, D.A.B.F.A. Department of Applied Forensic Sciences, Mercyhurst Archaeological Institute, Mercyhurst College, Erie, PA

[http://mai.mercyhurst.edu/files/mai-research/dirkmaat-2008\\_nij\\_1793-narrative-short.pdf](http://mai.mercyhurst.edu/files/mai-research/dirkmaat-2008_nij_1793-narrative-short.pdf)

## **Health and Safety**

### ***Guidelines for Handling Decedents Contaminated with Radioactive Materials***

<http://www.bt.cdc.gov/radiation/pdf/radiation-decedent-guidelines.pdf>

Charles M. Wood, Frank DePaolo, and R. Doggett Whitaker

Abstract: "Detonation of a nuclear weapon or activation of a radiological dispersal device could cause radioactively contaminated decedents. These guidelines are designed to address both of these scenarios. They could also be applicable in other instances where decedents' bodies are contaminated with radioactive material (e.g. reactor accidents, transportation accidents involving radioactive material, or the discharge of a decedent from a hospital after injection or implantation of a radiopharmaceutical). These guidelines suggest ways for medical examiners, coroners, and morticians to deal with loose surface contamination, internal contamination, or shrapnel on or in decedents' bodies."

### ***Health Concerns Associated with Disaster Victim Identification After a Tsunami --- Thailand, December 26, 2004--March 31, 2005.***

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5414a1.htm>

A study of the public health implications of temporary morgue operations in Thailand following the 2004 tsunami, including a checklist for public health and safety recommendations for temporary morgue operations.

### ***Interim Health Recommendations for Workers who Handle Human Remains***

<http://www.bt.cdc.gov/disasters/tsunamis/handlerremains.asp>

Information from the CDC for workers involved in the tsunami relief efforts. A concise listing of the issues regarding remains handling.

### ***Guidelines for Mass Fatality Management during Terrorist Incidents Involving Chemical Agents***

[http://www.ecbc.army.mil/downloads/cwirp/ECBC\\_guidelines\\_mass\\_fatality\\_mgmt.pdf](http://www.ecbc.army.mil/downloads/cwirp/ECBC_guidelines_mass_fatality_mgmt.pdf)

Developed by the US Soldier Biological Chemical Command, Military Improved Response Program, this guide addresses the variety of issues that medical examiners, coroners, law enforcement and first responders will need to deal with in a chemical fatality incident.

### ***Medical Examiner/Coroner Guide for Mass Fatality Management of Chemically Contaminated Remains***

[http://www.ecbc.army.mil/downloads/reports/ECBC\\_coroner\\_guide.pdf](http://www.ecbc.army.mil/downloads/reports/ECBC_coroner_guide.pdf)

A condensed version of the above guide, in checklist form.

### ***Infectious Disease Risks from Dead Bodies Following Natural Disasters***

[http://publications.paho.org/english/dead\\_bodies.pdf](http://publications.paho.org/english/dead_bodies.pdf)

Report indicating that dead bodies from disasters do not pose an infection risk.

### ***Disaster Myths that Just Won't Die***

[http://www.paho.org/English/DD/PIN/Number21\\_article01.htm](http://www.paho.org/English/DD/PIN/Number21_article01.htm)

Overview of some issues related to family assistance and dealing with large number of fatalities.

### ***Epidemics after Natural Disasters: A Highly Contagious Myth***

<http://www.colorado.edu/hazards/o/archives/2007/jan07/jan07b.html>

## **Psychological Support**

### ***Dealing With the Stress of Recovering Human Dead Bodies***

<http://chppm-www.apgea.army.mil/documents/FACT/36-004-0202.pdf>

Two-page overview of expectations for disaster responders in the handling of dead bodies. Produced by the US Army Center for Health Promotion and Preventive Medicine.

## DNA

### **Lessons Learned from 9/11: DNA Identification in Mass Fatality Incidents**

<http://massfatality.dna.gov/>

Abstract: "Lessons Learned from 9/11: DNA Identification in Mass Fatality Incidents offers guidance on the myriad issues the forensic community must face in a mass disaster to ensure that all victims can be accounted for, and identified."

### **Identifying Victims Using DNA: A Guide for Families**

<http://www.ncjrs.org/pdffiles1/nij/209493.pdf>

Written for family members to answer questions concerning the DNA identification process, the collection of reference samples, and other issues surrounding DNA identification of human remains.

### **Challenges of DNA profiling in mass disaster investigations**

<http://www.cmj.hr/2005/46/4/16100756.pdf>

This paper examines the different steps of the DNA identification analysis (DNA sampling, DNA analysis and technology, DNA database searching, and concordance and kinship analysis) and reviews the "lessons learned" and the scientific progress made in some mass disaster cases described in the scientific literature.

## Family Assistance

### **Providing Relief to Families After a Mass Fatality: Roles of the Medical Examiner's Office and the Family Assistance Center**

[http://www.ojp.usdoj.gov/ovc/publications/bulletins/prfmf\\_11\\_2001/welcome.html](http://www.ojp.usdoj.gov/ovc/publications/bulletins/prfmf_11_2001/welcome.html)

Resource for a variety of mass fatality family assistance and victim identification concerns. Areas addressed include:

- Primary issues and concerns of the victims' families
- Examples of a State/Federal partnerships for victim assistance services in a Medical Examiner's office
- Lessons learned about what is helpful when working with victims' families
- Family Assistance Center operations and resources, including a summary of procedural considerations.
- Formulating a Crisis Response Plan, including long-term crisis response plans.

### **Disaster Victim Identification: Issues for Families and Implications for Police Family Liaison Officers (FLOs) and Coroner's Officers (COs)**

[http://www.disasteraction.org.uk/leaflets/Guidance\\_for\\_Responders\\_Disaster\\_Victim\\_Identification\\_Issues\\_for\\_Families\\_and\\_Implications\\_for\\_Police\\_Family\\_Liaison\\_Officers\\_and\\_Coroners\\_Officers.htm](http://www.disasteraction.org.uk/leaflets/Guidance_for_Responders_Disaster_Victim_Identification_Issues_for_Families_and_Implications_for_Police_Family_Liaison_Officers_and_Coroners_Officers.htm)

"This guide has been written by members of Disaster Action, all of whom are survivors and bereaved people from disasters. Some of the disasters we have been affected by include the Zeebrugge ferry sinking, King's Cross fire, Lockerbie air crash, Hillsborough football stadium crush, Marchioness riverboat sinking, Dunblane shootings, Southall and Ladbroke Grove train crashes, the 11th September attacks in the United States and the Bali bombing."

### **Improving procedures and minimizing distress issues in the identification of victims following disasters**

[http://www.ag.gov.au/agd/EMA/rwpattach.nsf/viewasattachmentpersonal/\(85FE07930A2BB4482E194CD03685A8EB\)-Improving\\_procedures\\_and\\_minimising\\_distress\\_issues\\_in\\_the\\_identification\\_of\\_victims.pdf/\\$file/Improving\\_procedures\\_and\\_minimising\\_distress\\_issues\\_in\\_the\\_identification\\_of\\_victims.pdf](http://www.ag.gov.au/agd/EMA/rwpattach.nsf/viewasattachmentpersonal/(85FE07930A2BB4482E194CD03685A8EB)-Improving_procedures_and_minimising_distress_issues_in_the_identification_of_victims.pdf/$file/Improving_procedures_and_minimising_distress_issues_in_the_identification_of_victims.pdf)

"Reflecting on previous and current practices and experiences, this article draws on the procedures followed in the UK when establishing the identity of victims following disasters and highlights the differing needs, interests and issues arising for both professionals and the bereaved."

## **Specific Mass Fatality Responses**

### ***WHO Conference on the Health Aspects of the Tsunami Disaster in Asia: Phuket, Thailand, 4- 6 May 2005***

<http://www.who.int/hac/events/tsunamiconf/presentations/en/>

This conference featured a section on mass fatality management, including the following:

*Review of medicolegal experience involving Tsunami disaster in Sri Lanka* (Dr. UCP Perera)

[http://www.who.int/hac/events/tsunamiconf/presentations/2\\_16\\_forensic\\_clifford\\_perera\\_doc.pdf](http://www.who.int/hac/events/tsunamiconf/presentations/2_16_forensic_clifford_perera_doc.pdf)

*Forensic aspect of disaster casualty management: Tsunami Victim Identification in Thailand*

(P Sribanditmongkol, P Pongpanitanont, et al.)

[http://www.who.int/hac/events/tsunamiconf/presentations/2\\_16\\_forensic\\_pongruk\\_doc.pdf](http://www.who.int/hac/events/tsunamiconf/presentations/2_16_forensic_pongruk_doc.pdf)

### ***Interpol DVI Tsunami Evaluation Working Group: The DVI Response to the South East Asian Tsunami between December 2004 and February 2006***

<http://www.interpol.int/Public/DisasterVictim/TsunamiEvaluation20100330.pdf>

### ***Mass Fatality Management following the South Asian Tsunami Disaster: Case Studies in Thailand, Indonesia, and Sri Lanka***

<http://dx.doi.org/10.1371/journal.pmed.0030195>.

### ***Development of a Quality, High Throughput DNA Analysis Procedure for Skeletal Samples to Assist with the Identification of Victims from the World Trade Center Attacks***

<http://www.cmj.hr/2003/44/3/12808717.pdf>

For mass fatality incidents, quality, high throughput procedures will allow for more rapid DNA analysis of victim remains, more rapid identification of victims, and thus more rapid return of remains to family members.

### ***World Trade Center DNA Identifications: The Administrative Review Process***

[www.promega.com/geneticidproc/ussymp13proc/contents/hennesseyrev1.pdf](http://www.promega.com/geneticidproc/ussymp13proc/contents/hennesseyrev1.pdf)

Describes the process of DNA identification at the WTC, the complications encountered and how they were overcome, and some lessons learned applicable in future situations.

### ***Reuniting the Families of Katrina and Rita: Louisiana Family Assistance Center Final Report***

<http://www.dhh.louisiana.gov/offices/publications/pubs-303/Full%20Report.pdf>

Published by the Louisiana Department of Health and Hospitals, this 25 page documents the family assistance and victim identification process.

### ***Mass Murder in a University Setting: Analysis of the Medical Examiner's Response***

[http://www.dmph.org/cgi/content/full/1/Supplement\\_1/S25](http://www.dmph.org/cgi/content/full/1/Supplement_1/S25)

Abstract: "A retrospective review of the medical examiner system response to this multiple fatality event was undertaken to identify which procedures were and were not effective. Case records, spreadsheets, telephone call logs, notes, and after-action interviews of staff were reviewed and analyzed. Recommendations were developed to improve the management of the multiple components of a high-profile multiple fatality event."

## **Journal and Book Publications**

Alonso A, Martín P, Albarrán C, et al. 2005 Challenges of DNA profiling in mass disaster investigations. *Croatian Med Journal*, 46:540-8.

Brannon, R .B. and Kessler, H.P. 1999 Problems in mass disaster dental identification: A retrospective review. *J Forensic Sciences*, 44 (1):123-127.

Brondolo E, Wellington E, Brady N, Libby D, Brondolo T. 2008 Mechanism and strategies for preventing post-traumatic stress disorder in forensic workers responding to mass fatality incidents. *J Forensic Leg Med*, 15:78-88.

Donkervoort S, Dolan SM, Beckwith M, Northrup TP, and Sozer A. 2008 Enhancing accurate data collection in mass fatality kinship identifications: Lessons learned from Hurricane Katrina, *Forensic Science International: Genetics*, 2(4): 354-362.

Hennessey M. 2008 Data management and commingled remains at mass fatality incidents (MFIs). In: Adams BJ, Byrd JS, eds. *Recovery, Analysis, and Identification of Commingled Human Remains*. Totowa, New Jersey: Humana Press, pp. 337-356.

Kontanis, EJ and PS Sledzik 2008 Resolving Commingling Issues during the Investigation of Mass Fatality Incidents. Adams BJ, Byrd JS, eds. *Recovery, Analysis, and Identification of Commingled Human Remains*. Totowa, New Jersey: Humana Press, pp. 317-337.

Leclair B, Shaler R, Carmody GR, et al. 2007 Bioinformatics and human identification in mass fatality incidents: The World Trade Center Disaster. *J Forensic Sci*, 52:806-819.

McCarroll JE, Fullerton CS, Ursano RJ, Hermsen JM. 1996 Posttraumatic stress symptoms following forensic dental identifications: Mt. Carmel, Waco, Texas. *Am J Psychiatry*, 153:778-782.

Morgan O. 2004 Infectious disease risks from dead bodies following natural disasters. *Pan Am J Public Health*, 15:307-312.

Sledzik PS and SW Bryson 2010 Mass Fatality Management. In: Koenig and Schultz's *Disaster Medicine: Comprehensive Principles and Practices*, KL Koenig and CH Schultz (eds), Cambridge University Press, New York: pp. 312-325.

Sledzik, PS 2009 Forensic Anthropology in Disaster Response. In: *Handbook of Forensic Anthropology and Archaeology*, S Blau and DH Ubelaker (eds), Left Coast Press, Walnut Creek, California: pp. 374-387.

Sledzik PS and WC Rodriguez 2002 Damnum Fatale: The Fate of Human Remains in Mass Disasters. In: W Haglund and M. Sorg (eds), *Advances in Forensic Taphonomy: Method, Theory, and Archaeological Perspectives*. CRC Press, Boca Raton, Florida, pp. 321-330.

Uhle A 2010 Fingerprints and Human Identification. In: *Forensic Dentistry (2nd edition)*, Senn DR and PG Stimson (eds). Taylor and Francis, Boca Raton, Florida, pp 79-102.

Viner, MD 2008 The Use of Radiology in Mass Fatality Events. In: *Recovery, Analysis, and Identification of Commingled Human Remains*, BJ Adams and JE Byrd (eds), Human Press, Totowa, NJ, pp. 145-184.

Webb DA, Sweet D, Pretty IA. The emotional and psychological impacts of mass casualty incidents on forensic odontologists. *J Forensic Sci*, 2002;47:539-541.