



EMERGENCIES & ATTACKS: STRIKING SIMILARITIES DRAMATIC DIFFERENCES

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EXCHANGE OF VIEWS

- 9/11 & Other Attacks
- Katrina & Rita
- Other Disasters
- Daily Emergencies



WHAT WE KNOW

- WTC
 - Indiscriminate Attack
 - 343 Firefighters & Paramedics, 75 Police Officers
- Katrina
 - 1070+ Died in Louisiana; 225+ in Mississippi
 - 500+ in Louisiana Still Not Identified
 - 64% Over Age 60, 39% Over 75
 - 140+ Died in Hospitals/Nursing Homes
- RITA
 - Large Number Died Attempting to Leave



WHAT WE NEED TO LEARN

- Better Understand the Causes
- Measures to Prevent Disaster
- How We Can Mitigate Consequences



UNIVERSITY OF MARYLAND UNIVERSITY COLLEGE (UMUC)

- Founded 1947
- One of 11 Degree-Granting Institutions of the University System of Maryland
- Mission Is To Serve Primarily Adult/Part-Time Students
- More than 89,000 Full-Time & Part-Time Students, Worldwide
- 160+ On-Site Locations Worldwide



UMUC

- 79 Undergraduate & Graduate Certificates
- Associate Through Doctorate Degrees
- 23 Bachelors' Degree Programs
- 17 Masters' Degree Programs
- Doctor of Management (DM)



UMUC

- 30 Years In Distance Education
- 17 Masters' Degree Programs Online
- 18 Bachelors' Degree Programs Online
- Nearly 600 Courses Now Online
- 58 Grad/Undergrad Certificate Programs Online
- 110,000+ Online Enrollments in FY03



UMUC & U.S. SERVICES

- Decades of Education for US Servicemen/Servicewomen in Europe & Asia
- Active Participant in eArmy
- Army Signal Corps, War College
- U.S. Air Force, Navy, Coast Guard,



UMUC SECURITY STUDIES

- Broad Range of Programs & Courses
- Professional Services
- Undergraduate Studies
- Graduate Certification
- Doctorate in Security Management



UMUC SECURITY STUDIES

- Professional & Undergraduate
 - EMTs, Paramedics, Health Care Providers
 - Firefighters
 - Police & Law Enforcement
 - Local & State Authorities
- Graduate Programs
 - Government & Business
 - Military Officers
 - Coast Guard



UMUC FIRE SCIENCE & INFORMATION ASSURANCE

- Developed In Cooperation with National Fire Academy
- Professional Studies, Undergraduate & Graduate Programs
- FY2005 – 310 Undergraduate Students
497 Graduate Students



OVERVIEW

- Emergencies, Natural Disasters, Terrorist Attacks
- What We Know
- What We Don't Know & Need to Learn



EMERGENCIES

- Fire
- Flood
- Explosion/Structural Collapse
- Blackout
- Gas/Oil/Chemical Spill
- Air/Sea/Land/Subway Travel
or Transport Disruption
- Food Poisoning



BIOCHEMICAL EMERGENCIES

- Biological
 - Flu
 - Polio
 - Smallpox
- Chemical
 - Gas Explosion
 - HAZMAT Spill



NATURAL DISASTERS

- Earthquakes/Aftershocks
- Tidal Waves/Floods
- Hurricanes/Tornadoes
- Lightning Strikes/Wildfires
- Blizzards/Avalanches
- Volcanic Eruptions



TERRORIST ATTACKS

- Nuclear Attack (WMD)
- Radiological Dispersal Device (RDD)
- Biological/Chemical Attack
- Explosive
- Unconventional Attack (Plane)
- Incendiary Device
- Cyber, or Physical-Cyber Attack



EMERGENCIES: TYPICAL CHARACTERISTICS

- Often But Not Always Unpredictable
 - New Orleans Levees
 - Building Collapse
- Unexpected
- Local
- Immediate & Uncertain Danger
- Wide-Ranging Impact



NATURAL DISASTERS: TYPICAL CHARACTERISTICS

- May/May Not Be Predictable
- Immediate & Long-Term Impact
- Erratic Often Widespread Physical Destruction
- Catastrophic Loss of Life & Serious Injury
- Serious After-Effects
- Secondary Disasters



NATURAL DISASTERS: FOREWARNINGS

- Isolated or Foreign Incidents
 - Avian Flu
 - Polio
- Scientific Studies, Forecasts
 - New Orleans Levees
- Earth Tremors
- Volcanic Activity
- Heavy Rainfall/Drought



NATURAL DISASTERS: EFFECTS

- Disruption of Critical Infrastructures:
 - Communications/Electric Power
 - Financial Services
 - Travel & Transportation
- Loss of Life-Sustaining Services
 - Fresh Food/Clean Water
 - Sanitation
- Extensive Property Damage



TERRORIST ATTACKS: TYPICAL CHARACTERISTICS

- Possible Forewarnings
- Still Sudden, Dramatic & Unpredictable
- Carefully Selected Prominent Target
- Physical Destruction
- Massive Random Killing
- Claim of Credit



Terrorist Attacks: Forewarnings

- 10/23/83 – Beirut, Lebanon – 220 Marines Killed
- 2/26/93 – NY WTC – 10 die, 1,000+ Wounded
- 4/19/95 – Oklahoma City – 168 Killed, 19 children
- 7/27/96 – Atlanta, Georgia – 1 killed, 110 Injured
- 8/7/98 – Embassies in Kenya & Tanzania – 238 Americans Killed
- 10/98 – Bin Laden Issues Threat to U.S.
- 10/12/00 – USS Cole Attacked – 17 Americans Killed, 30 wounded
- 8/06/01 – CIA Warns of Attack in U.S.



RADIOACTIVE MATERIAL

- Protect Yourself
- Secure the Location
 - Limit Entry to Rescue Workers
 - Stop Release of Radioactive Material
 - Contact Hospitals
- Protect Those Injured & Exposed
- Notify Authorities



BIOLOGICAL AGENTS

- Anthrax
- Smallpox
- Pneumonic Plague
- Botulinum
- Tularemia



CHEMICAL AGENTS

- Sarin
- Tabun
- VX – Chemical Nerve Agent
- Soman
- Cyanide
- Mustard Gas/Blistering Agents



EVIDENCE: TERRORISTS LEAVE TRACKS

- Often They Are Vengeful Fanatics
- They Act Deliberately and Consistently, with Careful Planning
- They Choose Their Targets & Their Weapons
- They May Want to Be Identified & May Not Conceal Evidence



COMPREHENSIVE ACTION PLAN

- Skilled People, Specialists & Experts
- Local, State & Federal Roles & Priorities
- Know the Chain of Command
- Community Facilities & Resources
- Mobile Resources
- Establish/Maintain Clear Communications
- Coordinate with All Other Parties



SKILLED PEOPLE, SPECIALISTS & EXPERTS

- Firefighters & Rescue Squads
- Police
- EMTs & Paramedics
- HAZMAT Experts



UTILIZE ALL AVAILABLE RESOURCES

- Professional and Voluntary Organizations
- Public and Private Organizations
- Assign Clear Roles & Responsibilities
- Critical Contacts & Ongoing Communication
- Mobile Resources
- Local, State, & Remote Facilities



LOCAL EXPERTISE IS INVALUABLE

- Familiarity with the Area
- Knowledge of the Building & Its Features
 - Access & Egress
 - Internal & External Communications
 - Electric Power, HVAC
 - Occupants
- Local Facilities & Key People



ENGAGE STATE & FEDERAL AGENCIES

- Wider Authority
- Standing Resources
- Trained, Experienced People
- Equipment & Resources
- Money



COORDINATION & COMMUNICATION

- Understand Organizations & Their Responsibilities
- Know the Chain of Command
- Establish Clear Communication
- Coordinate with All Other Parties



INTELLIGENCE

- Trusted Information Network
- Signals
- Excess Noise
- Conflicting & Confused Messages
- Judged As “Non-Actionable”
- Failure to Verify or Act



TECHNOLOGIES

- Information & Communications
- Sophisticated Sensors
- Stationary & Mobile Monitors



REMEMBER THE RULES I

- You Are the Frontline
- No Two Situations Are Alike
- Scope Out the Scene
- Recognize the Dangers
- Protect Yourself & Your Colleagues at All Times
- Stay in Contact with Others



REMEMBER THE RULES II

- Trust What You Know
- Use Precaution, No Unnecessary Risks
- Observe Unusual Events & Behavior
- Cooperate & Collaborate



FIREFIGHTER FATALITIES 2004

- 117 Firefighters Died on Duty
- 36 Career, 81 Volunteer
- 80 In Emergency-Related Incidents
- 37 In Non- Emergencies
- 6 Female Firefighters
- 30 Firefighters Died on Scene of a Fire
- 22 Firefighters Died Going to/Returning from a Fire



SURVEY THE SCENE

- What Happened
- When & How It Occurred
- Physical Destruction & Hazards
- Lives Lost, People in Imminent Danger
- Buildings, Locations, Areas Affected



CHEMICAL/BIOLOGICAL EMERGENCIES

- Secure the Area
- Identify the Threat
- Protect Yourself and Others
- Establish Decontamination Area



ACTION PLAN: IMMEDIATE TARGETED RESPONSE

- Mapping & Marking the Scene
- Key Communications
- Mobilizing Resources
- Access & Egress



LONG-TERM EFFECTS: VICTIMS AND RESPONDERS

- Physical Pain & Handicaps
- Trauma
 - Mental
 - Psychological
 - Emotional