



First Responder Perspective

*The community, challenges
and opportunities*

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Agenda

- **Titan Expertise/Exercise Background**
- **National Demographics**
- **The First Responder Community**
- **Functional Requirements**
- **Challenges**
- **First Responder Feedback**
- **Opportunities**

Titan and HLS



General Support

- Enterprise management
- Systems engineering
- Integration
- Software development

Our core capabilities . . .

- WMD modeling
- WMD training, exercises
- Emergency management
- COOP/COG
- Vulnerability assessment
- WMD mitigation devices
- Chemical, biological
- FAMS
- Secure VTC
- APCO radios

Related technologies . . .

- Information assurance
- Geospatial
- Intelligence
- Border security
- Electromagnetic
- Biometrics
- Smart cards
- Automated identification tracking

EMD Exercises 1997-2003

Scenarios

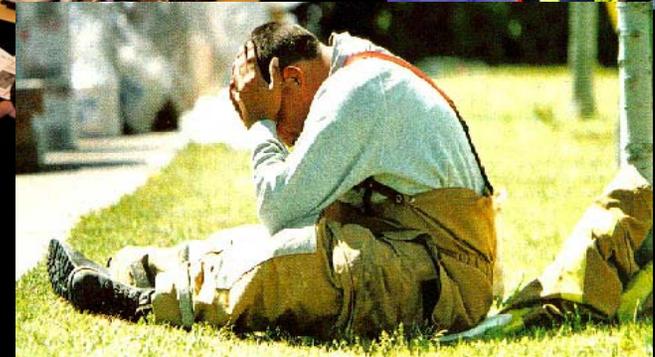
- Chemical
 - Persistent
 - Non-persistent
- Biological
 - Contagious
 - Non-contagious
 - Agricultural
- Other

Types

- Tabletop Exercises
- Functional/Command-post
- Full-scale/Field exercises
- Combined Functional/Full-scale
- Seminars
- Workshops

Clients

- U.S. Cities (120 largest plus others)
- U.S. States
- National Regional
- National
- Department of Defense
- Department of Justice
- Federal Emergency Management Agency



EMD Exercise Totals 1997-2003

(~282 Week period Sep '97-present)

Tabletops

- Chemical 137
- Biological 129
- Other 20

Functional/Full-scale

- Chemical 102
- Biological 5
- Natural -
- Other -

Totals

- 239 Chemical Weapons exercises
- 134 Biological Weapons exercises
- 20 Other type exercises

393 Exercises

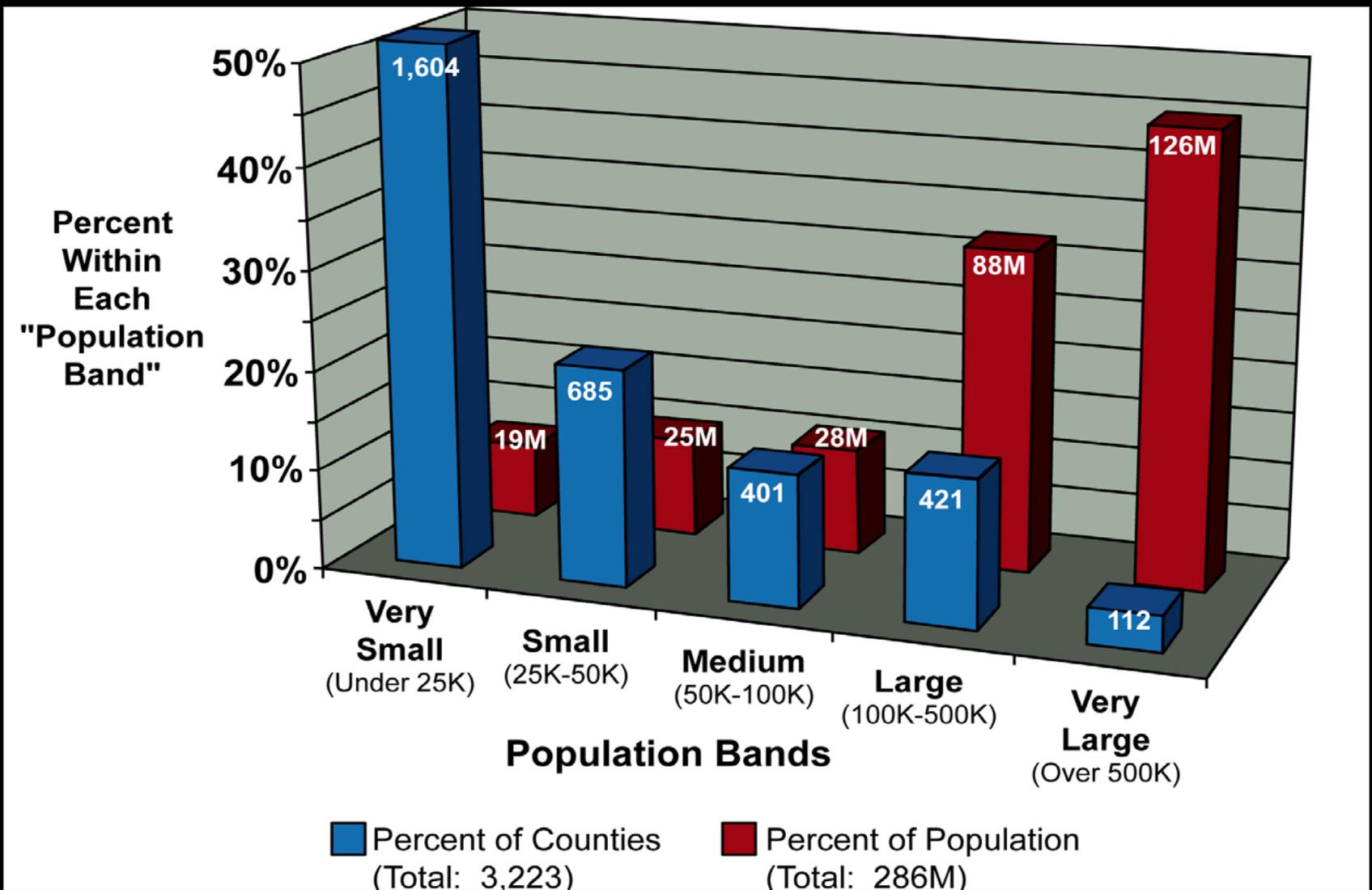


Bottom Line: More than one exercise per week

Frequent Exercise Lessons Learned

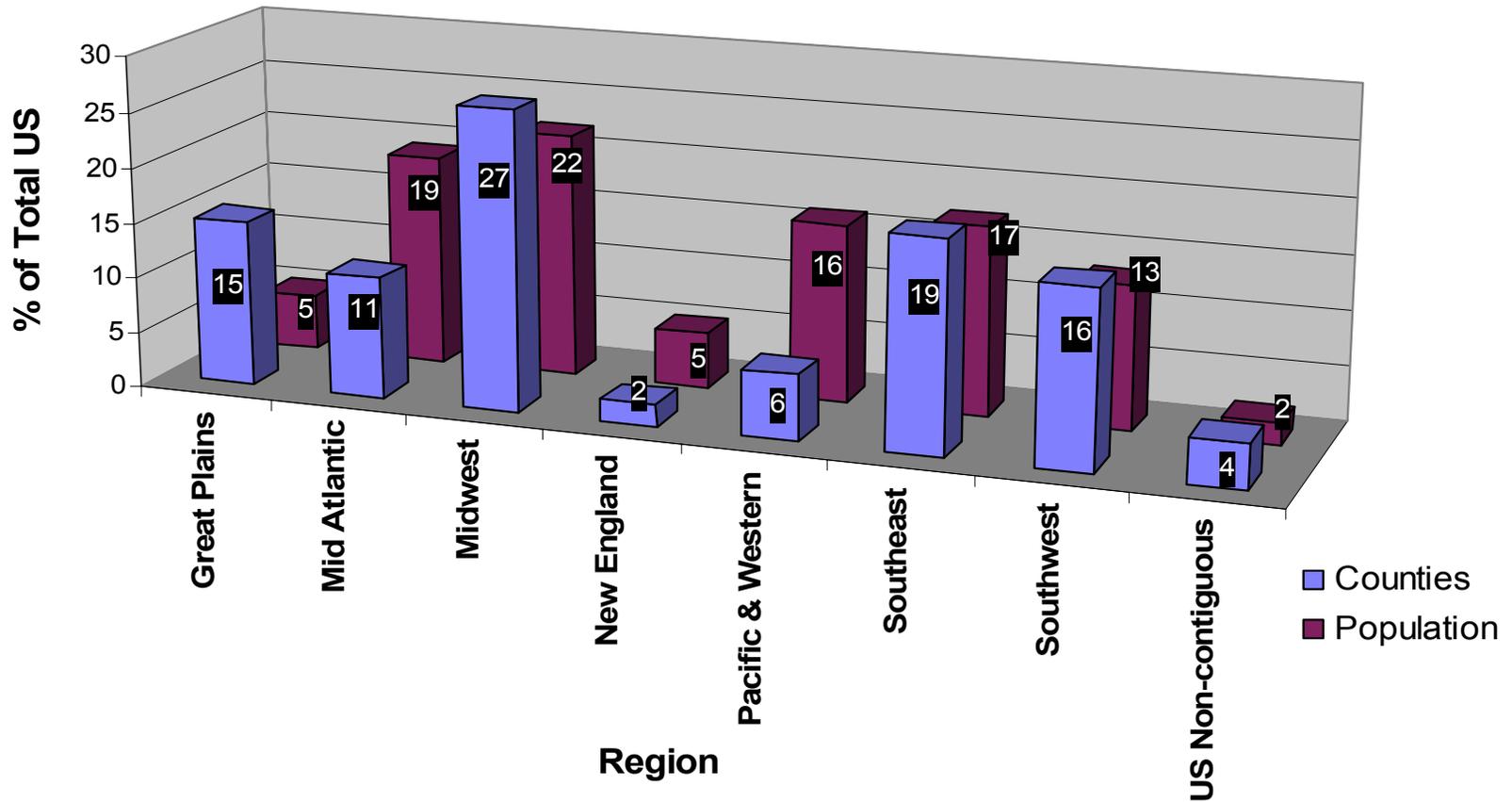
- Intra- Inter- agency communication/notification
- Intra- Inter-agency coordination
- Incident Command/Unified Command
- Victim decontamination (on scene & hospitals)
- Cross-contamination
- HazMat/Bomb Squad interoperability
- Syndromic surveillance
- Criminal/Epidemiological investigation
- Incident scene/Hospital coordination
- Public information

National Demographics



National Demographics

Distribution Across Regions



First Responder Community

Discipline	Number (Source)
Firefighters	1,064,150 (NFPA)
Law Enforcement	677,933 (DOJ)
EMS/ER Facilities	966,320 (ACEP, ENA)
Emergency Management	8,077* (IAEM, NEMA)

* This number reflects the total number of emergency managers (including part-time), but does not include support staff.

First Responder Community

Career vs. Volunteer Firefighter

Population	CAREER	VOLUNTEER	% CAREER	TOTAL
Very Small (under 25K)	75,000	738,300	9%	813,300
Small (25K-50K)	38,850	20,550	65%	59,400
Medium (50K-100K)	39,950	6,900	85%	46,850
Large (100K-500K)	65,850	6,400	91%	72,250
Very Large (>500K)	67,150	5,200	93%	72,350
GRAND TOTAL	286,800	777,350		1,064,150
PERCENTAGE	27%	73%		100%

Functional Requirements

Organizations and Functions

Organization	Notification	Initial Response	Protective Actions	Scene Security	Hazard ID	Victim Decon	Resp Decon	Triage, etc	Mutual Aid	Ext Support	Victim Care	Crim. Inves.	Public Info
911 Dispatch	X												
Local Police	X	X	X	X			?		X			X	X
SWAT units	X		X				?		X				
Bomb Squad	X		X				?		X				
County Sheriff	X								X			X	X
State Police	X								X			X	X
State Bureaus	X								X			X	X
FBI	X	?	X	X			X					X	X
Local Fire Department	X	X	X			X	X		X		X		X
HazMat Units	X		X		X		X		X				
EMS	X	X						X	X		X		
Hospital	X		X			X	?				X		X
Emergency Management	X								X	X			X
Coroner	X		X			X	X		X		X		X
Public Health	X				X						X		X
MMRS	X		X			X	X	X			X		
NGB	X		?	X						X			X
NGB-CST	X		X		X		X			X	X		
DMAT	X		X				X			X	X		X
DMORT	X		X				X			X	X		X

Modeling Challenges

- Inherent differences in demographics
- Inherent differences in threat/vulnerabilities
- Inherent differences in capabilities
- Career vs. Volunteers/Part-time
- Federal standards vs. State law
- City vs. regional response
- Public vs. private care

Easier Organizations

Organizations and Functions													
Organization	Notification	Initial Response	Protective Actions	Scene Security	Hazard ID	Victim Decon	Resp Decon	Triage, etc	Mutual Aid	Ext Support	Victim Care	Crim. Inves.	Public Info
911 Dispatch													
Local Police	X	X	X	X			?		X			X	X
SWAT units	X		X				?		X				
Bomb Squad	X		X				?		X				
County Sheriff	X								X			X	X
State Police	X								X			X	X
State Bureaus	X								X			X	X
FBI													
Local Fire Department	X	X	X			X	X		X		X		X
HazMat Units	X		X		X		X		X				
EMS	X	X						X	X		X		
Hospital	X		X			X	?				X		X
Emergency Management	X								X	X			X
Coroner	X		X			X	X		X		X		X
Public Health	X				X						X		X
MMRS	X		X			X	X	X			X		
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Easier Functions

Organizations and Functions

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SWAT units	X								X				
Bomb Squad	X								X				
County Sheriff	X								X			X	X
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Local Fire Department	X	X							X		X		X
HazMat Units	X								X				
EMS	X	X						X	X		X		
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Emergency Management	X								X	X			X
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Challenging Functions

Organizations and Functions													
Organization	Notification	Initial Response	Protective Actions	Scene Security	Hazard ID	Victim Decon	Resp Decon	Triage, etc	Mutual Aid	Ext Support	Victim Care	Crim. Inves.	Public Info
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FBI				X			X					X	
Local Fire Department						X	X						
HazMat Units					X		X						
EMS								X					
Hospital						X	?						
Emergency Management										X			
Coroner						X	X						
Public Health					X								
MMRS						X	X	X					
NGB				X						X			
NGB-CST					X		X			X			
DMAT							X			X			
DMORT							X			X			

Responder Feedback

- Survey of 30 mid- to senior level responders
 - All stated they are “inundated” daily with individuals and companies identifying modeling/simulation capabilities. *They are distrustful*
 - The city-scale ones they have seen are still very personnel intensive.
 - Some feel their community is low threat.
 - Most are concerned with what they perceive as the the “A,B,C or D” approach. Most believe in emergency response the answer can be “some of each”.
 - All are concerned about who the experts are that do the modeling.
 - All are concerned about modeling their community. They believe most products too boilerplate- “like fitting a square peg in a round hole”.
 - Some believe that inter-personal communication “is their job”, and they don’t want a model to diminish the importance of that dynamic.

Responder Recommendations/Opportunities

- Most believe they can be a useful training tool.
- Some responders are less enthusiastic about usefulness. Concerned this may be perceived as a replacement for hands-on, and diminishment of budgets.
- All need help separating “the wheat from the chaff”.
- All would like an all-inclusive scenario tool, but believe that is currently too hard to do.
- Most recommend “focused” modeling:
 - Bomb Squad simulation (like firearms simulator)
 - Syndromic surveillance
 - Mass vaccination/alternate care facility concepts
 - Mass decontamination
 - Agents signs/symptoms and detector/equipment use
 - Video game for concepts (like Visual Purple FBI product)

In Summary

Opportunities are there

Challenges will be significant

The community is wary- Avoid the temptation to oversell

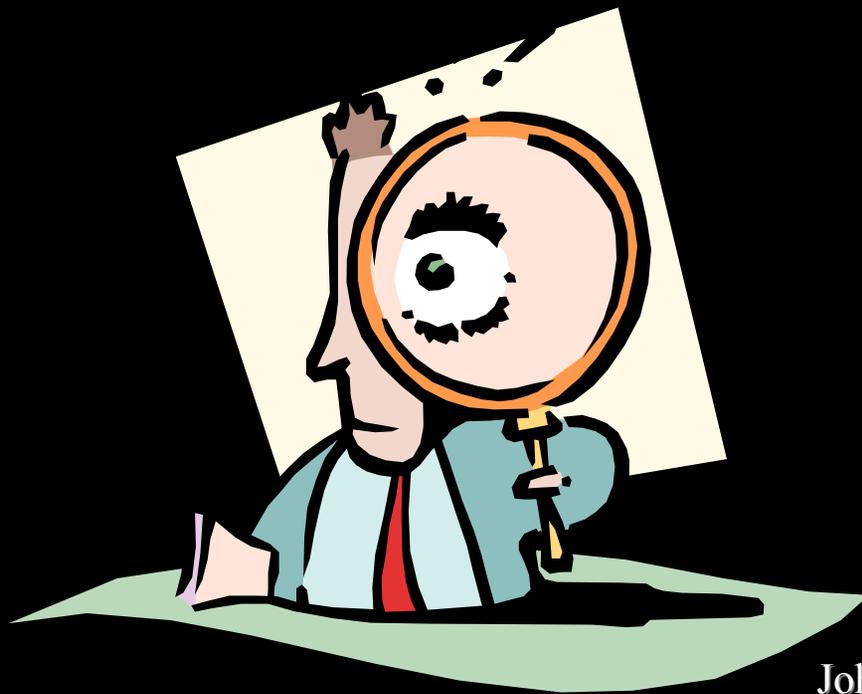
Recognize the differences within the community-

Manhattan, KS vs. Manhattan, NYC

Work the high threat/high vulnerability areas first:

- 44% of population in 3% of the counties
- 75% of population in 17% of the counties
- Focused simulation in the short term

Questions?



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