Homeland Security

IPRO 373

IPRO 373 Homeland Security Project

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Introduction

- 9/11/2001
- Develop a product for prevention purposes
- A computer program that assess
  - Risk
  - Vulnerability
  - Provide suggestions

Work Done This Semester

- Created 4 subdivisions for homeland security
  - Technological
  - Structural/Utilities
  - Criminal/Terrorist Attacks
  - Environmental
- Developed initial website: www.iit.edu/~ipro373f03
- Developed survey that can be used to help
  - Prevent terrorist attacks
  - Reduce vulnerability to terrorist attacks/threats
  - Minimize damage from attacks/natural disasters

Planned Work For Next Semester

- Convert survey to a program
- Attempt to find buyers for the program

Technological

- Electronic Security
- Computers/Network
- Communications

Electronic Security

- Control access to vital areas
- Authenticate identification
- Monitor security systems at all times
- Automatic warning for security breach
- Recognize suspicious activity
- Save visual record

Computers/Networks

- Passwords
- Firewalls
- Viruses

Communication

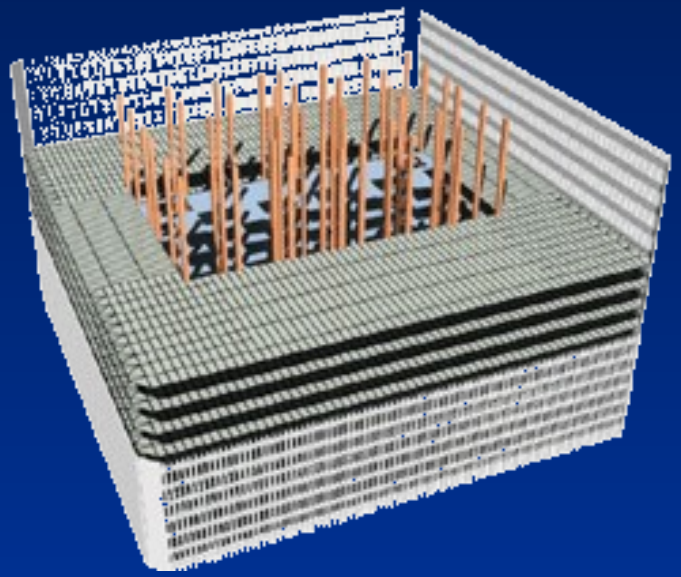
- Telephone
- Emergency response system
- Wireless system

Structural/Utilities

- Structural
- Natural Gas
- Electric Power

Structural

- Utilize existing structure
- Identify high risk hazards
- Implementation of safeguards



Natural Gas (NG)

- NG vital energy source
- Explosive nature
- NG system awareness

Electric Power

- Back-up electric generator
  - does facility have, require one
- Restricted access to critical utility areas
- Emergency battery back-up
  - periodic battery check policy

Criminal/Terrorist

- Facility Location
- Security Guards
- Weapons

Facility Location

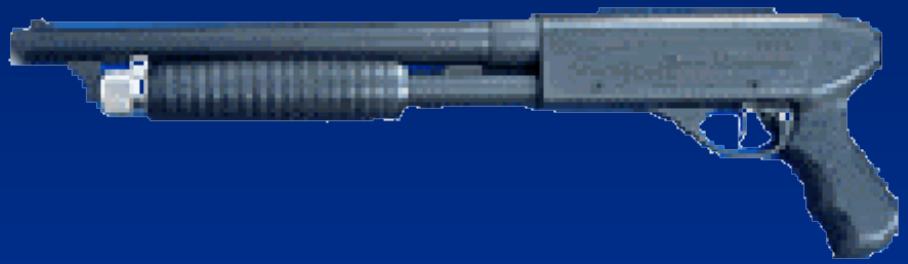
- Urban or non-urban setting
- Amount of traffic around facility
- Facility entrances and exits
- Proximity to high risk facilities

Security Guards

- Onsite security
- Preventative plans, procedures
- Training
  - Drills
  - New threats, attack methods
- Knowledgeable of facility inner workings
- Contact with local emergency service

Weapons

- Secure access
  - employee, visitor searches
  - metal detectors
  - exit locations
  - security
- Multiple types
  - Thermal
  - Radiological
  - Asphyxiation
  - Chemical
  - Mechanical
- Recognition



Environmental

- Natural Disasters
- Ventilation / Air
- Food
- Water

Natural Disasters

- Appear in many forms
- Hard to predict
- Cause massive damage
- Possible large life loss
- Needs:
  - Evacuation plan
  - Emergency response team
  - Designated safe area
  - Monitoring system

Ventilation / Air

- Safeguard against attacks
  - chemical
  - biological
- HVAC filtration system
- Internal/external safe zones
- Air intakes secure
- Response procedures

Food

- Definition
- Used as attack method
- Vulnerable to attack
- Potential effects of food terrorism

Water

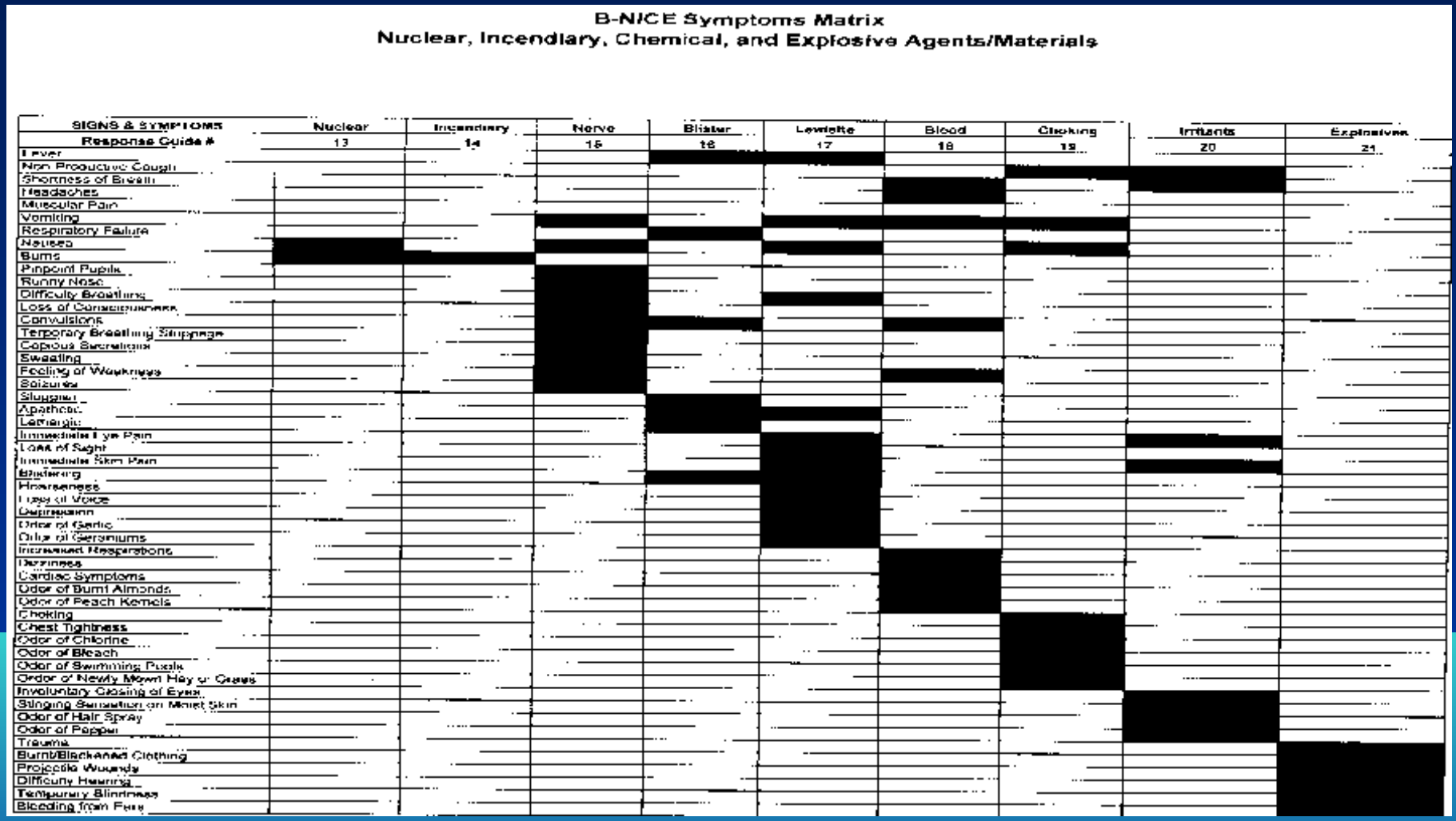
- Guard against terrorism
- Detection of containments
- Purification / filtration
- Education

Conclusion

Protecting Our Future

B-NICE Symptoms Matrix

Nuclear, Incendiary, Chemical, Explosive Agents/Materials



B-NICE Symptoms Matrix

Biological Agents

B-NICE Symptoms Matrix
Biological Agents

SIGNS & SYMPTOMS	Anthrax	Plague	Tularemia	Burcellosis	Q Fever	Smallpox	VEE	VHF	Botulinum	Entertoxins	Ricin	Mycotoxins
Police Response Guide #	1	2	3	4	5	6	7	8	9	10	11	12
Fever	■	■	■	■	■	■	■	■		■		
Fatigue	■			■								
Non-Productive Cough	■		■									
Chest Discomfort	■											
Shortness of Breath	■											
Cough with Bloody Sputum		■										
Chills			■	■	■			■		■		
Headaches			■	■	■		■			■		
Muscular Pain			■		■			■				
Muscle Rigidity						■						
Shivering						■						
Vomiting						■	■			■		
Scabs						■						
Drowsiness							■					
Sore Throat							■					
Diarrhea							■			■		
Hemorrhage								■				
Capillary Leaks								■				
Hypotension								■				
Progressive Weakness of Extremities									■			
Respiratory Failure									■			
Septic Shock										■		
Lesions											■	
Upper and Lower Airway Lesions											■	
Bloody Diarrhea												■
Diffuse Hemorrhage												■
Skin Inflammation												■
Nausea										■		