HEALING ENVIRONMENTS
Facility Design and Operation
Critically Impact Your Effectiveness and Efficiency
VA Physical Security Assessments

LESSONS LEARNED
Program Goals

- What threats should be guarded against?
- How best to evaluate healthcare, cemetery, as well as office facilities against these threats?
- How to enable critical facilities to remain in operation after extreme events?
NIBS Assembled Multidisciplinary Task Group for

• Identification and assessment of
  – Threats
  – Criticality
  – Vulnerabilities
• Recommendations for program implementation
• Implementation methodologies
  – What to assess
  – How to assess
• Mitigation costs
Assessments

• **Prioritized by:**
  – Mission Criticality
  – Location

• **Completed:**
  – 124 Pre-Assessments
  – 52 Full Assessments

• **Site Visits by Teams of Discipline Experts**
  – Pre: 2 Persons for 2 Days
  – Full: 5 Persons for 3 Days

• **Controlled Reports on Findings**
  – With Potential Mitigations and Costs for Full
Threat Scenarios (x-axis)

- Criminal Activity
- Personal Assault
- Accidents
- Contamination
- Natural Disasters
- Terrorist Act
- Cyber Attack
- Collateral Damage
- Power/Telecom Outage
- System Failure
- Public Mass Hysteria
Functional Elements \((y_1 \text{ axis})\)

- Mission Critical Areas
- Vulnerable Areas
- Other Areas
Site & Building Subsystems (y2 axis)

- Site
- Architectural
- Structural
- Building Envelope
- Utility Systems
- Mechanical Systems
- Plumbing and Gas Systems
- Electrical Systems
- Fire Alarm System
- Communications and IT Systems
- Security Systems
- Equipment Operations and Maintenance
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<th>Assessment Date</th>
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Site

- Adjacent risks
- Perimeter
- Site access control
- Vehicle circulation
- Parking
- Anti-ram devices
- Landscaping/vegetation
- Exterior lighting
Access Control
Architectural

- Building entrances
- Building access control
- Lobby area
- Critical assets
- Emergency rooms
- Mailrooms
- Loading docks
- Emergency egress
Loading Docks
Structural

- Stand off
- Blast resistance
- Progressive collapse
- Critical elements
- Discontinuities
- Detailing
- Parking garages
Blast Protection
Building Envelope

- Exterior walls
- Fenestration systems
- Atria
- Roofs
Utility Systems

- Entry points
- Accessibility
- Storage capacity
- Emergency supplies
- Water towers
- Redundancy
Protection of Utilities
Mechanical Systems

- Air intakes
- Air filtration
- Air handling units
- Building automation
- Building zoning
- Modularity
- Redundancy
Air Intakes
Plumbing and Gas Systems

• Redundancy
• Accessibility
• Storage and reserves
Electrical Systems

- Redundancy
- Accessibility
- Critical systems
- Emergency power
- Building lighting
- Alarm monitoring
Communications and IT Systems

- Redundancy
- Entry points
- UPS
- Accessibility
- Protection
- Backup
Lack of Redundancy
Operations and Maintenance

- Documentation
- Monitoring
- Emergency procedures
- Repair and service agreements
Security Systems

- Redundancy
- Perimeter
- Building
- System standardization
- System integration
- Alarm systems
- Lock systems
- Security operations center
- Secure areas
- Security master plan
Security Systems
Standardization, Integration, and Integrity
Recurring Systemic Vulnerabilities

- Site and Building Access Control
- Blast Protection
- Loading Docks
- Utility Alternate Sources
- Protection of Utilities
- Lack of Redundancy
- Lack of Modularity
- Air Intakes
- Mail Rooms
- Critical Function Areas
- Security Operations Centers
- Security System Equipment
- Building Documentation
Security Operations Center
Security Assessment
Data Base System

- Controlled Access
- Store & View Results
- Analyze Results
- Track Mitigations
LESSONS LEARNED:

• New Thinking for Design and Operation
  – Decentralization
  – Redundancy
  – Modularity
  – New Strategies
  – New Standards
  – Funding
Methodology Evolution

NIBS Physical Security Assessment For Department of Veterans Affairs Facilities, 6 September 2002


VA database:
- SQL Server
- Linked to VA systems
- VA defined threats and questions

FEMA 452 database:
- MS Office based
- Standalone system
- FEMA defined threats and questions

FEMA 426:
- Risk Management Series
- Reference Manual
- to Mitigate Potential Terrorist Attacks
- Against Buildings

FEMA 452:
- Risk Management Series
- Risk Assessment
- A How-To Guide to Mitigate Potential Terrorist Attacks
- Against Buildings

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LESSONS LEARNED
Department of Veterans Affairs
Physical Security Assessment Program

Federal Facilities Council
Physical Security & Hazard Mitigation Committee
14 March 06

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