

# Strategic Risk Management

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# Presentation Agenda

- TSG Introduction
- Understanding Risk and Security Challenges
- Conducting a Comprehensive Risk Assessment
- Applying the Results and Developing a Strategic Plan

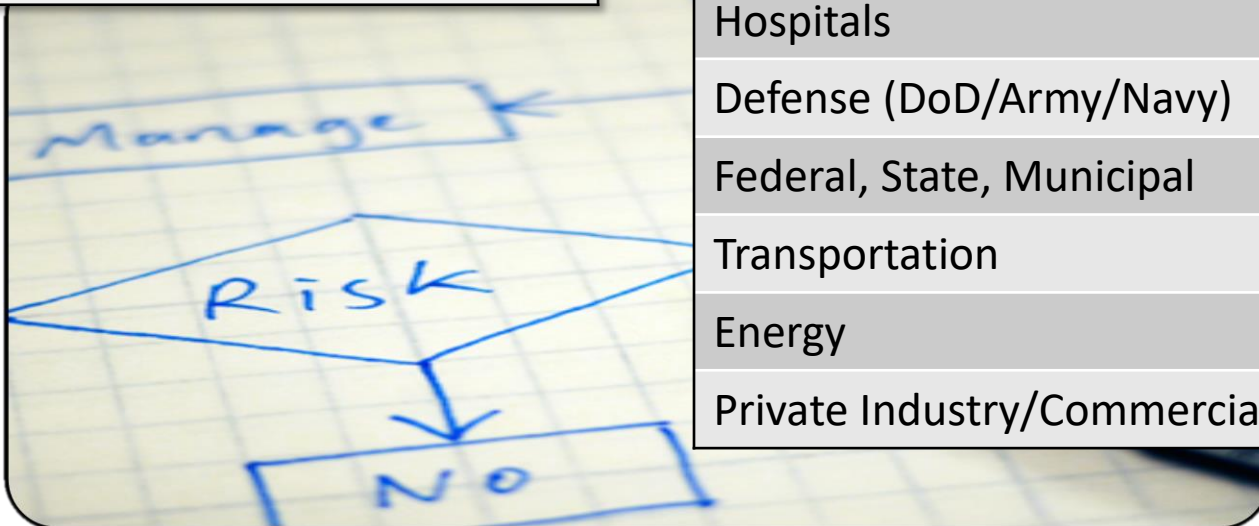
# TSG Risk Management Market Segments

## Services Provided

- Risk and Vulnerability Assessments
- Security Design and Engineering
- Emergency Response Planning
- Security Training Programs

## Market Segments

Higher Education  
K-12 Schools  
Hospitals  
Defense (DoD/Army/Navy)  
Federal, State, Municipal  
Transportation  
Energy  
Private Industry/Commercial



# Understanding Risk

# Understanding Risk

## To Understand Risk:

- Identify your assets (property, people, information, reputation)
- Identify the Threats and Hazards (manmade and natural) that may affect your organization
- Determine their likelihood of occurrence and impact/consequence if they were to occur
- Evaluate current countermeasures in place to mitigate risk

# Risk in Higher Education

## Threats and Hazards:

- Natural Disasters
- Accidents
- Utility/Systems Failure
- Medical Emergencies
- Manmade Acts

## Countermeasures:

- Electronic Security Systems
- Physical Security Measures
- Adequate Security Staff/Crisis Teams
- Clear R/R for staff and students
- Policies and Procedures

# Likelihood and Impact



## Assets:

- People
- Property
- Proprietary Information
- Reputation

# Conducting the Risk Assessment



# Why Conduct a Risk Assessment

## Reasons for conducting a Risk Assessment:

- Rely on risk-based solutions
- Reduce liability
- Prioritize industry standards and best practices
- Provide a basis for a Strategic Risk Management Plan

# Forming an Assessment Team

- Representative and Collaborative Team
- Responsible for identifying assets, threats/hazards, and countermeasures
- Calculates vulnerability and overall risk based on these elements
- Identifies realistic solutions for risks and gaps
- Incorporates results into a strategic plan
- Implements process to achieve goals set forth in the plan

# 6 Step Risk Assessment

## Methodology Sources:

- Sandia Risk Assessment Methodology (RAM)
- CARVER
- ASIS
- FEMA
- DoD
- ASME
- Others...

## RISK ASSESSMENT METHODOLOGY



Vulnerability		Criticality			
		4 Catastrophic	3 Severe	2 Moderate	1 Low
D	High Vulnerability	10	4		8
C	Moderate Vulnerability	15	6		
B	Low Vulnerability	20	5	14	
A	Not Vulnerable	8	12		



Vulnerability		Criticality			
		4 Catastrophic	3 Severe	2 Moderate	1 Low
D	High Vulnerability	0			
C	Moderate Vulnerability				
B	Low Vulnerability		17		26
A	Not Vulnerable	5	28	13	5

RISK NOT ACCEPTABLE

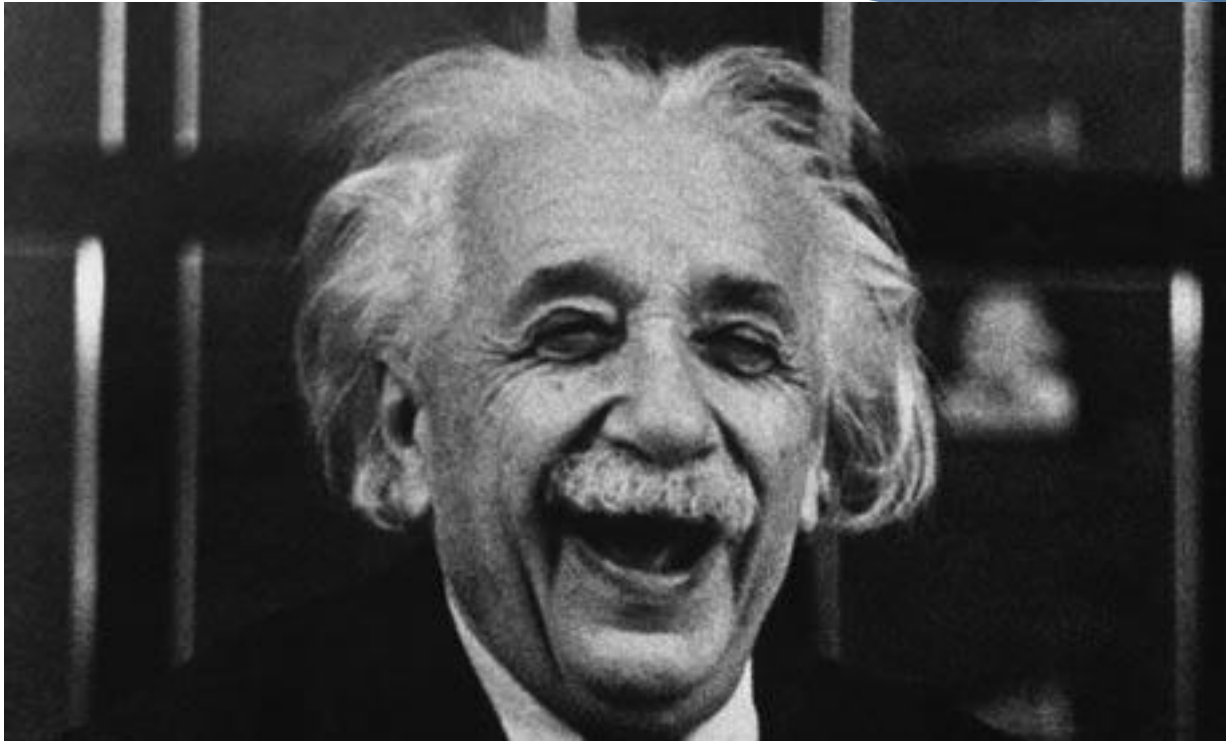
RISK ACCEPTABLE



# 6 Step Methodology

1. Inventory buildings and open spaces
2. Document pertinent building assets and construction data
3. Calculate the value of buildings and open spaces
4. Determine the population of buildings and open spaces
5. Calculate the resiliency of each building and open space
6. Calculate the risk to each building and open space
  - a. Identify natural hazards and manmade threats
  - b. Profile hazard and threat events including scientific probability or likelihood of occurrence
  - c. Determine consequence and vulnerability of each hazard and threat
7. Calculate adjusted risk

# Calculating Risk



# Higher Ed Results

## TOP MANMADE RISKS

Risk Category	
Ballistic Attack - Active Shooter	
Rape (Sexual Assault)	
Explosive Device - Mailed or Delivered	
Explosive Device – Man-Portable External (<5lb)	
Explosion/Fire	
Suicide	
Arson	
Homicide	
Assault (Aggravated)	
Energy/Power/Utility Failure	

\* This is an example of manmade risk rankings for Higher Ed, from highest to lowest risk (based on fictional data). A true assessment would yield a *risk score* for each.

# 4 Step Risk Assessment

**Operational  
Analysis**

**Vulnerability  
Assessment**

**Risk Reduction  
Solutions**

**Implementation  
/ Strategic Plan**

# Step 1: Operational Analysis

- Goal: Observe and evaluate the operations on each campus, from the day-to-day normal operations to special events
- Accomplish: Through site visits, interviews with key staff/students, meeting with first responders, and review of existing plans, policies, procedures, and training records
- Result: Develop a complete understanding of the rhythm and pulse of each campus, as well as the operational structure of the institution



# Step 2: Vulnerability Assessment Threat Assessment

Manmade Hazard	Likelihood	Consequences	Significance Ranking
Medical Emergencies	Moderate	High	Moderate
Utility Failure	Moderate	Moderate	Moderate
IT Failure	Low	Moderate	Moderate
Vandalism	Moderate	Low	Moderate
Active Shooter	Low	High	Moderate
Bomb Threat	Moderate	Moderate	Moderate
Vehicle Accidents	High	Low	Moderate
Burglary	Low	Low	Low
Motor Vehicle Theft	Low	Low	Low
Violence	Moderate	High	Moderate
Arson	Low	High	Moderate
Suicide	Low	High	Moderate
Rape/Sexual Assault	Moderate	High	Moderate

# Step 2: Vulnerability Assessment Threat Assessment

Natural Hazard	Likelihood	Consequences	Significance Ranking
Fire	Low	High	Moderate
Smoke	Low	High	Moderate
Hurricane	Moderate	Moderate	Moderate
Severe Winter Weather	High	Low	Moderate
Severe Summer Weather	Moderate	Low	Moderate
Biological	Low	Moderate	Moderate
Chemical	Low	Moderate	Moderate
Pandemic	Moderate	Moderate	Moderate
Flood	Low	Moderate	Moderate
Seismic Event	Low	Moderate	Moderate

# Step 2: Vulnerability Assessment Countermeasures



## In an Emergency When you hear it. Do it.



Lockout



Lockdown



Evacuate



Shelter

### Lockout! Secure the Perimeter.

**Students**  
Return inside  
Business as usual

**Teachers**  
Bring students into the building  
Increase situational awareness  
Take roll  
Business as usual

### Lockdown! Locks, Lights, Out of Sight.

**Students**  
Move away from sight  
Maintain silence

**Teachers**  
Lock classroom door  
Turn out the lights  
Move away from sight  
Maintain silence  
Wait for responder to open door  
Take roll

### Evacuate! (Directions to Follow.)

**Students**  
Leave your stuff behind  
Form a line  
Hand in hand

**Teachers**  
Lead evacuation to location  
Take roll  
Notify if missing, extra or injured students

### Shelter! (Directions to Follow.)

**Students**  
Shelter types:  
1. For tornado  
2. For bomb  
3. For hazmat  
Shelter methods:  
1. Drop, cover and hold  
2. And seal  
3. In silence

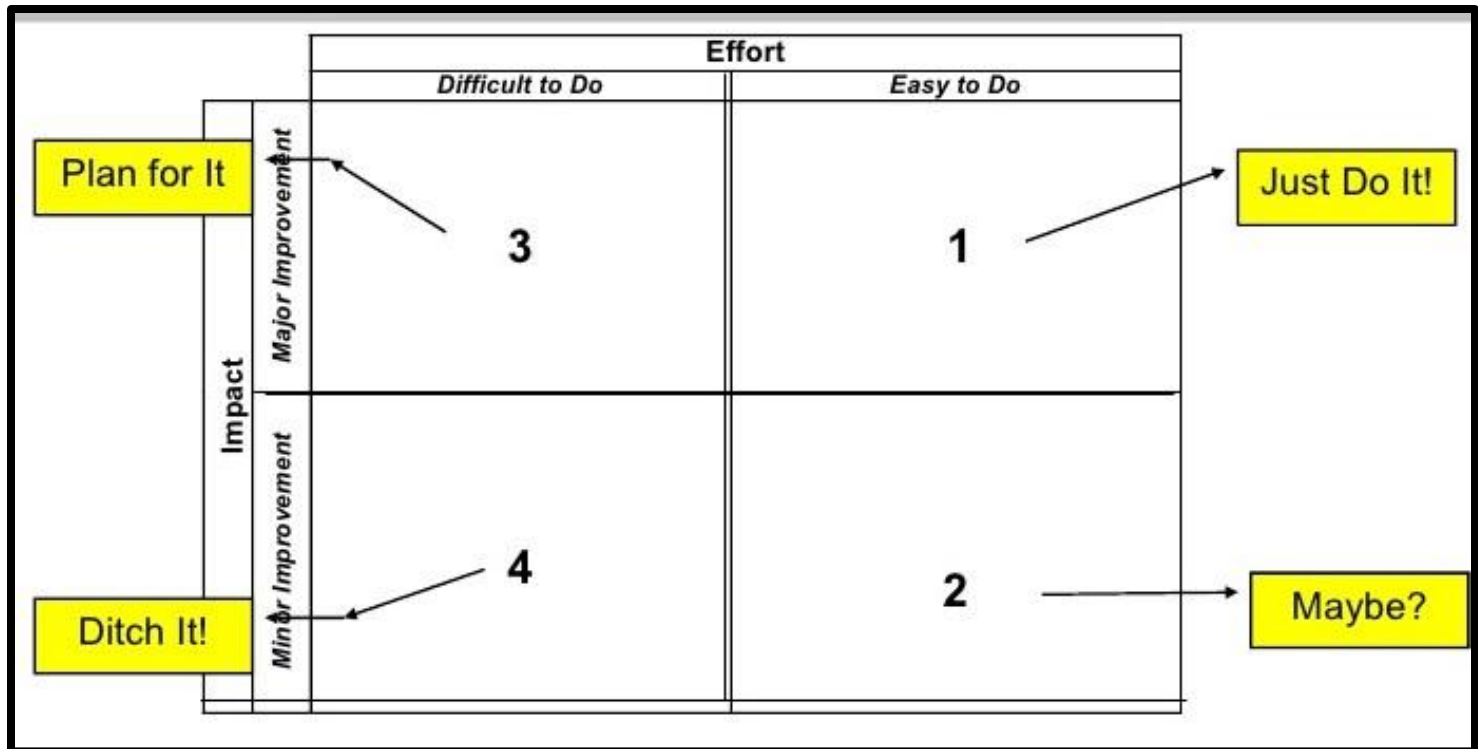
**Teachers**  
Shelter type  
Shelter method  
Take roll

# Step 3: Risk Reduction Solutions

- Based on the results of the operational analysis and vulnerability assessment conducted you can identify gaps and vulnerabilities
- Applying industry standards and best practices, develop risk reduction solutions
- Focus on prevention, protection, mitigation, response, recovery
- Include physical, procedural, human, emergency management, training, redundancy and technological risk reduction solutions for each campus and/or the institution

# Step 4: Implementation Plan

- Phased implementation plans/timeline
- Budget analysis and rough order of magnitude pricing



# Applying Your Results

# Strategic Risk Management Plan

- 1-5 year Risk Management Master Plan
- Based on real-life vulnerabilities and risk based solutions
- Associated costs included
- Priorities weighed and set in a comprehensive and clear manner
- Easy to understand and justify to leadership
- Since it is a multi-year plan, performance metrics are essentially already built in
- Revisit your plan annually or every 2 years to adjust as needed and to show progress

# Thank You

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