

# Physical Security Threats

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## ❖ Introduction

### ➤ Controls

- **Administrative Controls**
- **Technical Controls**
- **Physical Controls**

### ➤ Critical Path Analysis

- **Lists each piece of the infrastructure and keep them healthy**
- **Outlines the path data takes when passing through a network**
- **The path that is critical for business functionality**

### ➤ Hardware Issues

- **MTBF**
  - Mean Time Between Failure
  - MTBF measure of reliability for repairable items.
  - Expected lifetime of a device
  - Reduced by redundant units
- **MTTF**
  - Mean Time To Failure
  - MTTF measure of reliability for "non-repairable" systems.
  - Time expected until the first failure of a piece of equipment.
- **MTTR**
  - Mean Time Between Repair
  - Used to estimate the amount of time between repairs
  - Reduced by stocking spare parts

## ❖ Threats to physical security

### ➤ Risk to C.I.A

- **Interruptions in computer services (A)**
- **Physical damage (A)**
- **Unauthorized disclosure of information (C)**
- **Loss of control over system (I)**
- **Physical theft (C.I.A.)**

### ➤ Risk to physical Security

- **External Threats**
  - Wind/Tornado
  - Earth movement
  - Storm damage
  - Flooding
  - Lightning

- Earthquake
- Cold and Ice
- Fire
- Chemical
- **Internal Threats**
  - Fire&Smoke contaminants
  - Building collapse or explosion
  - Environmental Failure (Utility Loss)
  - Liquid Leakage Water damage
  - Electrical Interruption
  - Toxic materials release
- **Human Intervention**
  - Strickes
  - Theft
  - Vandalism
  - Sabotage
  - Espionage
  - Errors

## ➤ 7 Major sources of physical loss

- **Temperature**
  - Sun light
  - Fire heat
  - Freezing
  - Heat included
- **Gases**
  - War Gases
  - Commercial variations
  - Humidity
  - Dry air
  - Particles included
- **Liquids**
  - Water & chemicals included
  - Floods
  - Plumbing failures
  - Precipitation
  - Fuel leaks
  - Spilled drinks
  - Chemical used for cleaning
  - Printer fluids
- **Organisms**
  - Viruses
  - Bacteria
  - Animals
  - Insects
- **Projectiles**
  - Tangible objects in motion
  - Meteorites
  - Falling Objects

- Cars&Trucks
- Bullets&Rockets
- Explosions
- Strong Wind
- **Movement**
  - Collapse
  - Shearing
  - Shaking
  - Vibration
  - Liquefaction
  - Flows
  - Waves
  - Slides
- **Energy Anomalies**
  - Electric surges or failure
  - Magnetism
  - Static electricity
  - Aging circuitry
  - Radiation
  - Sound light
    - ♦ Loudspeakers
    - ♦ High energy
  - Radio/microwave
    - ♦ HERF High Energy Radio Freq
  - Electromagnets
    - ♦ EMP electro-magnet pulse
  - Atomic waves

## ❖ **Distributed Processing Threats**

- **Threats To Confidentiality**
  - Sharing Computers
  - Sharing Diskettes
- **Threats To Availability**
  - User Errors
- **Threats To Data Integrity**
  - Malicious Code
  - Version Control
- **Office Area Controls**
  - Entry Controls
  - Office Lay-Out
  - Personnel Controls
  - Hard-Copy Document Controls
  - Electronic Media Controls
  - Clean-Desk Policy
- **Protection against Disclosure**
  - Shoulder Surfing
  - Access to Sensitive Media