

Facility Design, Construction, Standards Backup Facilities and Capability

Panel:

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Objectives

- A vision of how communications systems and facilities should be designed and built based on available resource materials.
- Prepare to mitigate failures in the future.
- Preparedness issues should effect hoe facilities are built today.



Survivability – 4 Parts

- Facility – Our Focus Here Today!
- Personnel – another session
- Communications Infrastructure - some mix
 - Radio
 - Telephone
 - Information Technology
- Interoperability – another session



Facility = Service Survivability

- Redundant and Secure Facilities
 - CPE / 911 – separate session
 - Back-up 911 Center
 - Relocate
 - Transfer of calls
 - Radio, CAD, Mapping Services
- Backup Facility
 - Regular Tests
 - Scheduled Drills

Construction Survivability

- Information Technology
 - LAN
 - WAN
 - Wireless networking
- Survivability (110 – 250 mph winds = \$\$)
 - Earthquake Resistant
 - Tornado Shelter
 - Projectile
 - Flood Zones





Construction Survivability

- Location
- Construction materials
 - Earthquake footings
 - Windows
 - Hurricane proof
 - Bullet proof
- Access



Considerations – Antennas / Towers

- Survivability

- Generator

- Must be located in a manner to prevent loss of service from any anticipated hazard
 - and have adequate fuel sources in place and ready
 - Plans should allow for extended periods without commercially available power

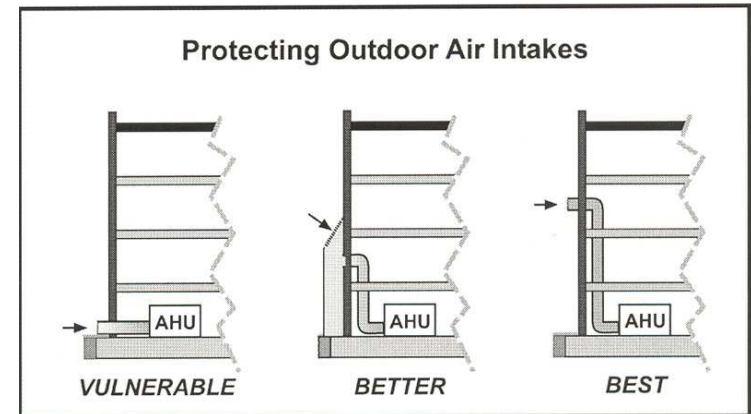


Standards Exist for PS Comm Ctrs

- ❑ **NFPA - National Fire Protection Association 1221**
- ❑ **EMAP - Emergency Management Accreditation Program**
- ❑ **NRC and NRIC - Network Reliability and Interoperability Council**
- ❑ **Guidance of ISO on PS Comm Ctr Capability**
- ❑ **CALEA and FEMA 361**
- ❑ **DHS Target Capabilities and NIMS**

Facility Considerations

- Plumbing
 - Floor drains in equipment spaces
- HVAC
 - Independent for work areas, equipment room
 - Security
- Power Distribution
 - Sizing (current & future)
 - Backup power (UPS, Generator)
 - Surge protection
- Grounding
 - Static Electricity
 - Lightning Protection Measures





Interoperability

- Short-term solution:
 - Interconnection switches that overlay individual systems and provide that basic interoperability
 - IP based software bridging systems available that match competitor systems on different frequencies
 - RACES (Amateur radio link)



Planning

- Communications systems need to be designed and constructed for worse case scenarios expected in the local region if they are to survive those worst case incidents.
- If we don't prepare for *known* worst-case disasters, our systems are not assured to survive them when they strike.



Planning

- Common Theme in all failures was either
 - Insufficient planning for redundant, back-up equipment
 - Insufficient funding for the robust designed demanded for the mission critical networks of first responders.
- CAD
 - Request CAD vendor to provide capacity assessment
 - Craft a disaster-recovery plan that includes which unnecessary processes, units and functions can be disabled during extreme volume to increase CAD performance.



Capabilities Based Planning

A Quick Lesson

□ What should we plan our facilities for?

- A range of catastrophic events of differing magnitude and complexity which are plausible from terrorist attacks, major disasters and other emergencies;
- Candid assessment of vulnerability is required.



Capabilities Based Planning

□ Does your agency have adequate capabilities?

- The only means to determine that is to compare the target levels with those of your agency;
- There will be gaps, excesses and deficiencies;
- Assessment of each is an important step ...

□ Allocation of resources should be based upon improving the appropriate level of capability?

- The assessment of capability is followed by a valid preparedness strategy;
- Executive level decision makers must be made aware of the process and the product – soon!



Homeland Security Committee

2005 Initiatives

- Update Homeland Security White Paper / Report on current state of Public Safety Communications
 - Survey
- Best Practices
 - Develop standards in conjunction with Emergency Management officials
- Training
 - Development/Distribution of Reference Guide
 - HLS webinars
- Awareness
 - Regular notifications of DHS Security Levels
- Community Input – perceived issues, threats and readiness
 - Promote survivability & redundancy in the PSAP
- Funding
- Deployable 9-1-1 Staff



Resources

- www.apointl.org
- www.ojp.usdog.gov
- www.whitehouse.gov/news/releases/2003/12/20031217-6.html
- www.dhs.gov
- www.nfpa.org
- www.femal.gov/pdf/preparedness
- www.emergency-management.net
- www.llis.gov



??Questions??

Thank You!