Mission Continuity Program
IT Orientation

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I think we may need to update our disaster recovery plan. This one suggests we all run around in circles shouting 'What do we do??! What do we do??!'
The Need for Mission Continuity Planning

- Hurricane Katrina
- Chemistry Lab Accident
- Campus Tragedy
- Oakland Earthquake
- The University of Iowa
- Iowa River Flood
Purpose of today’s presentation

Provide an overview of the University's Mission Continuity initiative

– Goals and vision
– Strategy
– History to date
– Next steps
Mission Continuity: vision

- Develop sustainable, University-wide program
- Uphold core missions of the University (research, teaching, service)
- Continue programs and systems that may be impacted or threatened in the case of a disruption to normal operations, a crisis, or a disaster.
Some definitions

- **Emergency response vs. continuity of operations**
  - Immediate actions vs. keeping critical functions of the organization going

- **Critical functions, processes or operations**
  - Necessary to keep key University services running

- **Incident response**
  - Usually for loss of facility
  - Includes evacuation, e.g.

- **Disaster recovery**
  - Recovering lost technology
Causes of outages/disruptions to normal operations

• Natural disasters:
  – hurricane, tornado, earthquake, flood
• Building disasters:
  – fire, release of hazardous materials, interruption to utilities
• Illness:
  – epidemic affecting employees and students for extended periods
• Security breaches:
  – terrorists, individual “shooters”
• IT security breach:
  – loss of information, records, or systems
• Day-to-day outages:
  – HVAC or power down
• Third-party issues:
  – SEPTA strike
The Need for Mission Continuity Planning at Penn

Water Main Break, 38th & Spruce  Construction Crew Cut Phone Cable

Snow Emergencies  Flu Vaccinations
Penn Ready and Mission Continuity
A Continuum of Planning

**Crisis Management**
- EMERGENCY PREPAREDNESS & RESPONSE
  - UPenn Alert
  - AED
  - Emergency Procedures
  - Emergency Team Program
  - Blue Book Project
- PROTECTION OF LIFE AND PROPERTY
  - Core Plan
  - Pandemic Plan
  - All Hazards Plan

**Disaster Recovery**
- SYSTEMS RECOVERY
- SERVICE RESTORATION
- IMPACT ANALYSIS
  - (Provost and EVP)

**Mission Continuity**
- Planning Preparedness
- Mitigation of Risk
- Modified Operational Continuation to Normal Restoration
  - (Provost and EVP)
Mission Continuity Program Structure

**Program Sponsors**
Executive Vice President & Provost

**Program Owners**
- EVP Special Projects
- Provost Admin Affairs
- ISC Admin Systems

**Advisory Board**
Policy & Procedures Team
(School and Center Representatives and Subject Matter Experts)

**School and Center Leadership**
- Plan Owners

**Mission Continuity Liaisons**
School & Center end-users

**Communications**
- Web site
- Tools & Resources
- Report Development

**Training**
- Knowledge Building Modules
- Instructor-led training

**Working Groups**
- Continuity of Teaching
- Continuity of Research
- End-User Group

**Project Management**
ISC
History: criticality filters

• Spring/summer 2008: **criticality filters** completed by Schools and Centers

• Contents:
  – Inventory of **critical functions and assets** needed to maintain an organization’s mission
  – Information on **desired or required recovery time**
  – Whether recovery plans were in place

• Raised awareness
What we learned: oh, no!

– Over 2000 processes, functions or assets deemed critical
  • i.e., needed to be restored within 5 days
– Nearly 30% were deemed necessary to be restored within 24 hours
– Over 2/3 reported there were no plans
Results of the criticality filter

• Assembled committee to choose software
  – ISC, OACP, PSOM, Purchasing, EVP, Provost’s Office
• Database software Shadow-Planner selected winter 2009
  – Web-based
  – Configured and piloted FY09
History: pandemic planning

• Summer 2009
  • Sponsored by Provost and Executive Vice President
    ➢ Appointed and convened Incident Management Team (IMT)
    ➢ Representatives from Schools and Centers, including Student Health, Public Safety, College Houses
  • Each School and Center completed at least one questionnaire about their preparation for a flu pandemic
  • University pandemic plan developed and approved
  • Added to University’s Crisis Management Plan (CMP) housed in Mission Continuity system
Structure: Mission Continuity Leadership

• Provide structure for Schools and Centers to develop plans

• Work with Mission Continuity Representatives and Plan Liaisons

• Provide training and additional support
  – askmc@lists: e-mail for help
  – Website
  – Monthly user group meetings
Mission Continuity

Plan • Respond • Recover

Mission continuity planning is designed to ensure that the University is prepared to resume operations as efficiently as possible in the event of a crisis (such as a fire, flood, or other cause of interruption in operations). As part of Penn’s Mission Continuity program, Schools, Centers and departments are responsible for developing mission continuity plans and recording them online using special software tailored for Penn, called Shadow-Planner.

Who is responsible?

Each School and Center will identify people responsible for developing and updating mission continuity plans. These plan liaisons and plan contributors will be trained in using the software, so they can easily enter and maintain their plans in the University’s Shadow-Planner repository. A mission continuity representative will also be designated in each School and Center. These representatives will serve as a conduit for two-way communications and be responsible for sharing and distributing important program information within their organization and sharing lessons-learned and feedback with other program participants. Some individuals may serve in more than one role. For example, the same person may be both a plan liaison and plan contributor.

Who benefits?

The University benefits from having consistent and accessible mission continuity plans for all organizations and buildings. Should disaster strike, these plans will provide the information necessary to help Schools and Centers resume their operations as quickly as possible.

More information

On this site, you will find guidance on creating a mission continuity plan, links to the tools the University provides for mission continuity planning, information on where to get help, and details about the overall Mission Continuity program.

If you have questions or want more information about the Mission Continuity program, please send an email to askmcs@lists.upenn.edu and someone will be in touch to address your concern or question.
1. Determine their organization’s planning strategy and needs
   • Centralized vs. distributed model; PSOM probably do a combination
   • Staff needing training

2. Develop Mission Continuity Foundation Plans

3. Enter plans into Mission Continuity system

4. Test and maintain plans
School/Center strategy for creating Foundation Plans

• Distributed model: Provost’s Center, EVP, President’s Center

• Centralized model: SAS, Law, Annenberg, Nursing

• Hybrid: PSOM
Foundation Plan Components defined by Provost and EVP

- Critical processes and functions
- Call lists
- Roles and responsibilities
- Building/facility information
- Necessary equipment and supplies
- Key technology and system applications
- Vital documents
- Key third-party vendor/partner information
Foundation Plan Methodology: BETH3

- Loss of **Building**
  - Incident response
  - Continuity of operations
- Loss of **Equipment**
  - Includes vital documents
- Loss of **Technology**
  - Disaster recovery
  - Continuity of operations
- Loss of **Human Resources**
  - Key personnel
  - Pandemic model
- Loss of **Third-party Vendors/Partners**
Foundation Plan Structure

• Plan structure in database (Shadow-Planner)
  – Triggers, Actions, Responsible persons, Procedures
  – When, What, Who, How

• How it looks in the database
Continuity of Teaching

- Committee assembled fall 2009-spring 2010
- Started during pandemic planning
  - Developed plans on using academic technology
- Representatives from undergraduate Schools and several Centers
- Concerned with continuity of instruction in the event of any kind of outage
- 5 sample plans (BETH3) usable by any School
- Also usable by Centers as plan templates
Continuity of Research

• Committee assembled summer-fall 2010
• Representatives from research areas and research support services
• Concerned with continuity of research in the event of any kind of outage
• 5 sample plans (BETH3)
  – usable by any School
Constructing a plan

• Start with Pre-Planning Questionnaire (PPQ)
  – Available on Mission Continuity website
  – Use for
    • Interviews
    • Ask relevant people to complete all or part of it
• Make into plan in a spreadsheet template
  – Template available on Mission Continuity website
  – Cut and paste information into Mission Continuity tool
Mission Continuity Program Current Status

- Trained over 200 end-users
- **Majority of Foundation Plans Complete**
  - 10 of 12 Schools
    - PSOM & SAS have significant progress
    - Executive Vice President Divisions and Offices
    - Provost Centers and Offices
    - President Centers and Offices
- Plans activated and proven useful
- Best practices shared
- Plans reviewed for consistency and updating
Early Successes & Lessons Learned

Example

• Law School:
  Power Loss Tanenbaum

• Student Financial Services:
  Key employee unexpected absence at critical time

• PennVet & Penn Dental:
  Water main break 38th & Spruce

• Arts & Sciences:
  Snow Emergency: Continuity of Teaching

• College House Office Flooding

Benefit

• Improved preparedness

• Improved documentation

• Improved communication

• Improved responsiveness

• Planning matters
Next steps

• Reviewing plans for completeness and consistency

• Working on tabletop exercises

• Maintaining and extending plans as necessary

• Deploying new version of Shadow-Planner tool
Mission Continuity training and support

- Knowledge-Building and Privacy & Security modules
  - Available on KnowledgeLink
  - Open to all University faculty and staff
  - Basic information about Mission Continuity and maintaining information privacy and security

- Instructor-led training, conducted monthly by Financial Training Department

- Additional site visits and workshops on demand

- Website

- askmc@lists
Finding us

• Website:
  www.upenn.edu/missioncontinuity

• askmc@lists.upenn.edu