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LIBRARIES

Disaster Preparedness and Recovery: Response to an Earthquake

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Federal Depository Library Council and
Fall Depository Library Council Meeting

Arlington, VA October 19, 2011

Before I Start

- We were lucky
- No one got hurt or died
- We did not have serious damage
- We were well prepared
- We still need to improve our disaster preparedness

General Areas of Presentation

- An unexpected disaster (earthquake on East Coast)
- Recovery Issues
 - How we were organized
 - Assessing Safety and Damage
 - Collections
 - Communication
- What we had in place for disasters
- How did we do?
- What needs improvement?
- Questions and Discussion for Both Presentations

University of Maryland (UMD)

- 37,000 Students and Faculty
- Flagship Campus of University System of MD
- Inside Beltway (College Park)

- Eight UMD Libraries
 - McKeldin is Largest
 - Hornbake has Special Collections
 - Largest University Library System in DC-Baltimore

5.8 Earthquake August 23, 2011 1:51pm EDT

Epicenter 8km from Mineral, VA

Approx 100 miles from College Park

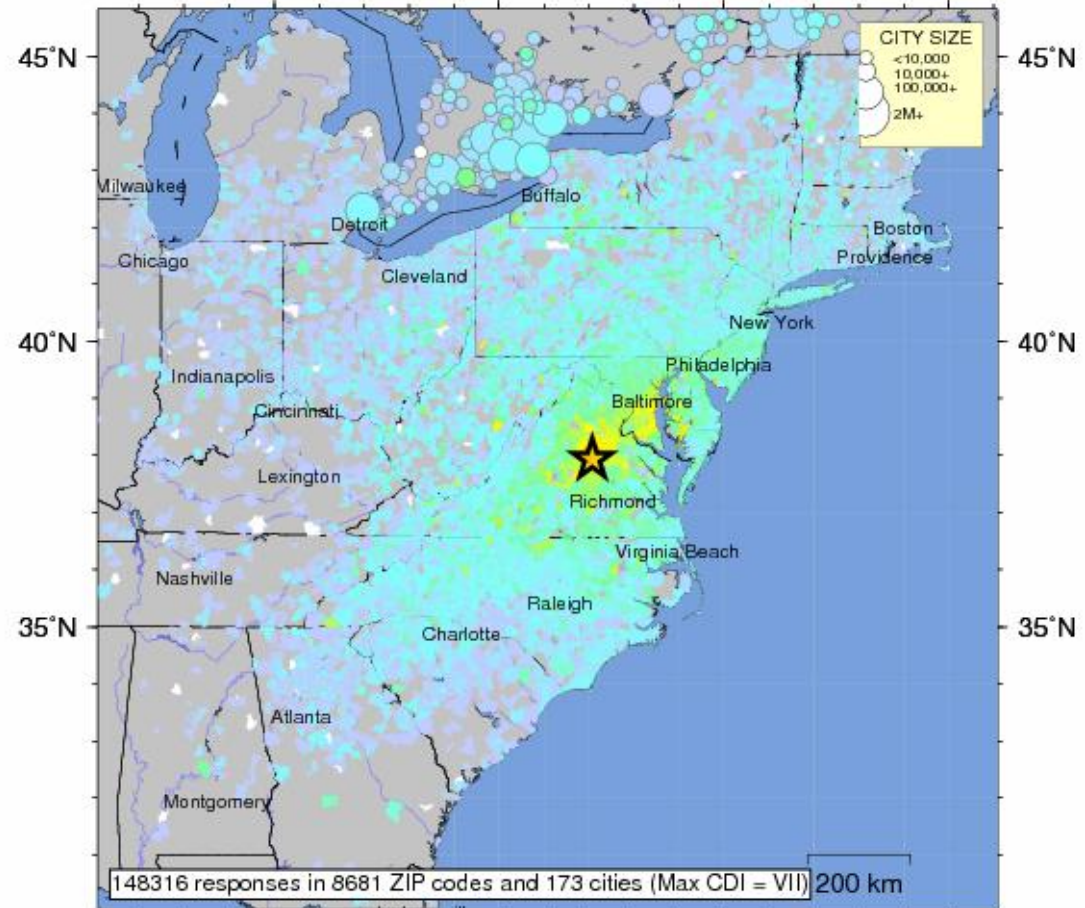
Almost as strong as strongest recorded earthquake in VA (magnitude 5.9, May 1897, Giles County VA).

Strongest recorded earthquake to strike eastern US was in 1886, Charleston SC, about magnitude 7.3.

Earthquake was felt widely. It was shallow & geologic conditions in eastern US allow earthquake effects to propagate and spread efficiently.

USGS Community Internet Intensity Map VIRGINIA

Aug 23 2011 01:51:04 PM local 37.936N 77.933W M5.8 Depth: 6 km ID:se082311a



INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+
SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	V. Heavy

Processed: Sat Oct 15 22:10:42 2011



Initial Moments in McKeldin Library

Structural failure?

Terrorism ?

Earthquake?

What else?

During shaking - What do we do? Stand in doorways, run outside, do nothing?

After shaking - What do we do? Stay in place, evacuate - fall back on training and procedures, other?





When the shaking ended --- We pulled the fire alarm. Wrong Choice!

What We Knew

Cell phone and smartphone overload

Text and radio (car) worked - that is how we got info and news

- Pentagon evacuated
- Downtown agencies evacuated
- Book range collapse noted near PSD Director office
- No news from campus

Some libraries evacuated and got all clear to reopen



Prange Collection, Hornbake Library



Day 1

McKeldin Library

PSD Director, campus Facilities Management - Do not enter

Staff needed keys, cell phones, medicine - very stressful

Staff allowed in after >1 hour

Bought patron belongings to door

Went home...

Facilities Management did not permit reopening for 2-1/2 days



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McKeldin Library, 7th floor

Day 1

Other Campus Libraries

Cracks, some books off shelves

Chemistry, Engineering/Physical Sciences, Performing Arts and Shady Grove reopened

Special Collections had 1,000 books on the floor and shelving damage in staff areas. Reopened since problems not in public areas

Art opened next day

Architecture Library closed one more day pending review of cracks



Hornbake Library, Broadcasting Archives



Day 2

Recovery

Getting Started

Core team to manage situation

- PSD Director
- PASD Director
- Head of Access Services
- Head of Preservation
- Communications Director

Staff wanted to help before safety was assessed. Called for volunteers to sign up to help

Communications:

- twitter, flickr to campus/world
- regular email to staff



Food during breaks was important!



Day 2 McKeldin Library Recovery Stacks Assessment

Teams began damage assessment & safety for staff to work in areas

Kept most staff out of stacks initially

Looked at stability of ranges: loose shelving/faces, ranges that moved

Yellow police tape - mark problems, cordon off areas

Release areas for cleanup

Trained more to assess damage/safety



Day 2-5 McKeldin Library Recovery Books

Volunteers were brought to floors

Stacks staff member coordinated
volunteers on each floor

Books triaged into damaged and
undamaged groups. Placed on
trucks and moved into staging
areas

All McKeldin books reshelved by
Monday August 29

‘Damaged’ books sent to
Preservation for next steps





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Day 2-4 McKeldin Library Recovery Other than Books...

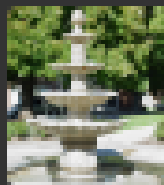
Day 2. Compact shelving vendor assessed shelves. Released compact shelving deemed safe.

Day 3. Facilities Management assessed building.

Day 4. Approval to reopen McKeldin

Later. Shelving vendor unloaded and repaired compact, free standing shelving. Braced free standing shelving. Tightened sway braces in compact shelving. Began discussions about what happened and how to improve.





A standing ovation to our colleagues at @UMDLibraries for working so hard to recover from the earthquake!
<http://t.co/x1J0zIT> Amazing!

GWmvc, [+] Fri 26 Aug 10:56 via TweetDeck

actual books. ;-)



Bob Stafford Hey, is my thesis in there?? Might be the first time it's moved in 20 years

Yesterday at 12:26pm · Like · 3 people



Kyle Jirsa Woah

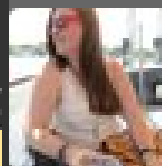
Yesterday at 12:54pm · Like



@ultimatelibrum Sucks to be librarian on that shift! UMD's McKeldin Library during the earthquake. A photo journey!
<http://ow.ly/6dOjW>

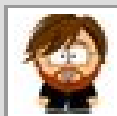
ekivemark, [+] Fri 26 Aug 13:00 via TweetDeck in repl

went up there once
 5pm · Like



Never saw the library look this bad, even during finals! MT @dcist updates: inside UMD's Library during the earthquake:
<http://t.co/Tv555LW>

CaitReiss, [+] Fri 26 Aug 15:32 via HootSuite



rudeskata 1 hour ago

Another win in the war between digital and print media, your days are numbered!

Collections Stats

- 27,000 books on the floor in McKeldin
- 1,000 books on the floor in Special Collections
- 4.8% of 27,000 McKeldin books required Preservation treatment
 - 957 sent to Bindery (28 also had in house repair)
 - 334 had Preservation assessment/work (minor repair/relabel, brittle books to review, duplicates to review/withdraw, Special Collections review/transfer)

Key Problem Area - Shelving

4 floors have compact shelving

Highest floors had compact shelving with 'uneven faces'

One range collapsed

Cordoned off all compact shelving, including FDLP

Emergency procurement. Compact shelving vendor assessed, resolved problems. Second range collapsed during process. Repaired and braced free standing stacks

Released shelving as completed



Reason for Shelving Problems

Deferred maintenance (tightening) of sway braces

No bracing of some free standing stacks



How Did We Do?
What Did We Learn?

What Plans Existed? Were They Used?

- Salvage Squad
- Safety and Security Committee
- Floor Marshall Program to Evacuate McKeldin
- Smart Phones for Directors, Deans
- Emergency Phone Trees
- Safety and Security Guidelines
 - Including “What to do During an Earthquake”

What to do During an Earthquake

To stay as safe as possible during an earthquake: Be aware that some earthquakes are actually foreshocks and a larger earthquake might occur. Minimize your movements to a few steps to a nearby safe place and if you are indoors, stay there until the shaking has stopped and you are sure exiting is safe.

If Indoors

- DROP to the ground; take COVER by getting under a sturdy table or other piece of furniture; and HOLD ON until the shaking stops. If there isn't a table or desk near you, cover your face and head with your arms and crouch in an inside corner of the building.
- Stay away from glass, windows, outside doors and walls, and anything that could fall, such as lighting fixtures or furniture.
- Use a doorway for shelter only if it is in close proximity to you and if you know it is a strongly supported, load-bearing doorway.
- Stay inside until the shaking stops and it is safe to go outside. Most injuries occur when people inside buildings attempt to move to a different location inside the building or try to leave.
- Be aware that the electricity may go out or the sprinkler systems or fire alarms may turn on.
- **DO NOT use the elevators.**

If Outdoors

- Stay there.
- **Move away from buildings**, streetlights, and utility wires.
- Once in the open, stay there until the shaking stops. The greatest danger exists directly outside buildings, at exits and alongside exterior walls.
- Once the shaking has stopped, unless fire alarms are sounding in the building and/or there is structural damage, **staff members should not evacuate the building. If there is structural damage, the building should be evacuated with extreme caution to avoid potentially hazardous areas**, and work control should be called immediately at 5-2222. If there are injuries, notify the UMPD at 911 on a land line or #3333 from a cell phone and follow their instructions.

What to do During an Earthquake

- DO NOT use the elevators
- Move away from buildings
- Staff members should not evacuate the building. If there is structural damage, the building should be evacuated with extreme caution to avoid potentially hazardous areas

What Worked Well

- Strong training and safety/security organization in Libraries
- Existing teams to handle specific tasks (evacuation, salvage/preservation, stacks management) moved into action
- Emergency contact lists
- Good relations with campus groups (securing the building, assessing the building, procurement)
- Strong communications efforts to staff and users/campus/campus leaders, particularly starting day 2 (flickr, phone, email)
- Staff willingness to pitch in (team spirit)
- Campus willingness to do emergency procurement for stacks repairs

What Didn't Work As Well

- Communication with Branch Libraries about what was happening Day 1
- Patrons and Staff Refused to Take Direction
 - Didn't stay away from building
 - Constant interruptions of those trying to manage situation
 - Difficulties in grasping the larger situation
 - Lack of information about situation's scope increased anxiety (Can I get home?)
- MANY staff left the building without keys, phones, medicine – adding urgency
- Unclear who made decisions about whether a building was open; concerns from staff about whether structural integrity questions were responded to
- Staff inclination to funnel information (whether a library was open, what needs branches had) to specific people (bottlenecks), rather than groups
- Many staff did not see it as their job to help keep patrons out of building or away from building during first hours

Needed Improvements

- Creation of a 'box' to carry out the front door of all libraries during emergencies
 - Would contain Safety and Security Guidelines, Phone Trees, flash lights, other items
- Bracing unbraced, free standing ranges
- Maintenance plan for tightening up sway braces
- Put Safety and Security Materials in the Cloud for more serious events where IT is compromised
- Periodically review/refresh and offer staff safety and security training

Questions

For Dan, or for Me

Thank you!

To UMD Libraries librarians, and staff. Over 90 helped with the recovery project, with many also contributing photos.

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http://www.flickr.com/photos/umd_libraries/sets/72157627383474133/