



# UTAH SEISMIC SAFETY COMMISSION SUMMARY

Peter McDonough, Chair

2007 USSC/NESC Joint Meeting  
St. George, Utah

# UTAH SEISMIC SAFETY COMMISSION

- Established by 1994 Utah Legislature; first meeting July 1994
- 15 members (3 added in 2000)
- 2 ex officio members
- Chair and 2 Vice Chairs
- 5 original Standing Committees

# PREDECESSORS TO USSC

- Utah Seismic Safety Advisory Council (1977-1981)
- Utah Earthquake Advisory Board (1991-1994)
- Earthquake Task Force, Utah Advisory Council on Intergovernmental Relations (1989-1991)

# FORMATION OF USSC

- January 17, 1994 Northridge earthquake occurred on the opening day of the Utah Legislature (MLK Day)
- Legislators asked Utah Earthquake Advisory Board for possible legislation
- UEAB submitted list of 30+ actions
- 1994 Legislature formed USSC



# UTAH EARTHQUAKE PROGRAM

- Utah Division of Homeland Security
- University of Utah Seismograph Stations
- Utah Geological Survey
- Utah Seismic Safety Commission
- Structural Engineers Association of Utah

# OBJECTIVES

- Increase earthquake awareness and education
- Improve emergency response and recovery
- Improve the seismic safety of buildings and infrastructure
- Improve essential geoscience information
- Assess earthquake risk



# MEMBERS

- Division of Homeland Security
- Utah Geological Survey
- University of Utah Seismograph Stations
- Utah League of Cities and Towns
- Structural Engineers Association of Utah
- Utah Division of Facilities Construction and Management

# MEMBERS (Cont.)

- Utah Department of Transportation
- American Institute of Architects
- American Society of Civil Engineers
- State Planning Coordinator (Governor's Office of Planning and Budget)
- Utah House of Representatives
- Utah Senate



# MEMBERS (added 2000)

- Utah Department of Insurance
- Association of Contingency Planners
- American Public Works Association



# MEMBERS (ex officio)

- U.S. Geological Survey
- Federal Emergency Management Agency



# STANDING COMMITTEES

- AWARENESS AND EDUCATION
- GEOSCIENCES
- ENGINEERING AND ARCHITECTURE
- LIFELINES AND INFRASTRUCTURE
- INTERGOVERNMENTAL RELATIONS

# STAFF AND FUNDING

- Commissioners are unpaid volunteers
- Originally \$4,500/year from Legislature; now \$4,100/year from budget cuts
- 2000 Legislation allowed acceptance of public and private contributions and grants
- No permanent paid staff – Utah Geological Survey and Division of Homeland Security provide staff

# USSC SUCCESSES

## Awareness

- Strategic Plan for Earthquake Safety (1995)
- Conferences promoting business and institutional planning and presenting awards for seismic safety (1996, 1997, 1998)
- Awareness conference for the general public (2002)
- Published Progress Reports (1996, 2000, 2007)
- Regional meetings outside Salt Lake City – 1998 Brigham City, 2000 Provo, 2001 Ogden, 2007 St. George
- Survival of 2004 sunset review
- Member of WSSPC



# Outreach

- USSC meeting attendance and participation by outside groups (insurance companies, USOE, school districts, engineers)
- URM Ad Hoc Advisory Committee
- Off-site meetings hosted by others (JVWCD, Utah Alcoholic Beverage Control, Consonus)
- USSC tours of earthquake projects (BYU, State Capitol, Utah ABC, JVWCD, Consonus)

# Emergency Response

- Community Emergency Response Team (CERT) training
- ShakeMap/HAZUS implementation
- ATC-20 post-earthquake building evaluations



# Education

- Student research grants program
- Teacher workshops
- UUSS Earthquake Education Services display and curricula
- Prepared Schools Program (drills, emergency response plans)



# Schools - Buildings

- Structural engineering reviews of new building plans
- School building-safety evaluations by Wasatch Front school districts
- 2007 Utah Office of Education building safety initiative (\$500 million over 10 years) (proposed)

# Infrastructure

- Advanced seismic design, I-15 rebuild through SLC
- 1998 earthquake education program for water and wastewater system operators
- Evaluation/upgrade of major water-system facilities (Metro, Jordan Valley)
- Natural gas system improvements

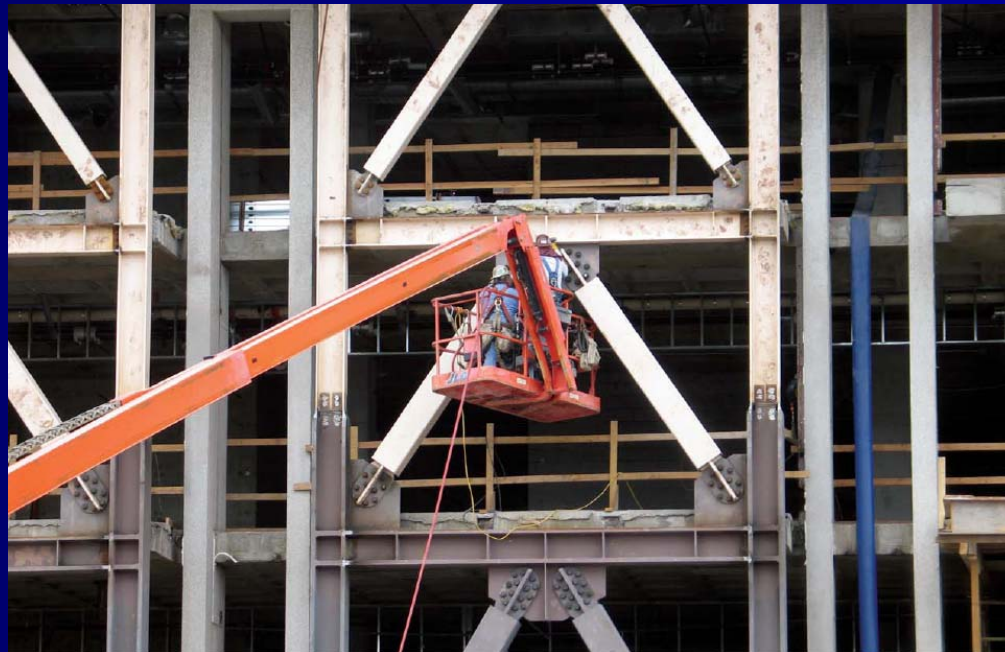
# Buildings

- 1996, 2006 presentations to State Building Board to include seismic safety in planning
- BYU seismic strengthening program
- Parapet brochure
- State Capitol retrofit
- URM initiative



# Pre-Disaster Mitigation Grant Projects

- University of Utah Marriott Library retrofit
- More from Bob



# Instrumentation

- Wasatch Front Advanced National Seismic System strong-motion instrumentation
- 2007 improved seismic instrumentation in southern Utah
- ShakeMap/HAZUS implementation for emergency response
- I-15 bridge, State Capitol Building strong-motion instrumentation



# Local Governments

- 1999 USSC Local Government Guidelines Advisory Committee
  - Geologic hazards special-study-area maps
  - Brochures explaining hazards, risk reduction, liabilities, and cost-benefits
  - Building official training
- Utah League of Cities and Towns presentations
- New and updated ordinances; improved enforcement

# Geoscience

- 2000, 2004 Geologic Hazards Conferences
- 2003-2007 Earthquake Working Groups  
(replaced Geoscience Standing Committee)
- Salt Palace forum
- Ground-shaking brochure
- County IBC spectral-acceleration maps
- Post-Earthquake Technical Clearinghouse  
plan

# USSC FAILURES

- 1996 attempt to dedicate state funding for seismic upgrades of state buildings
- 1996 proposal for earthquake engineering research center at Utah universities
- 2007 Legislative Resolution to inventory and address URMs



# REMAINING CHALLENGES

- Inactivity of most standing committees
- Few recent (post-1998) non-technical conferences or awards presented
- Need for formal update of 1995 Strategic Plan
- Publication of peer-reviewed scenario HAZUS loss estimates

# SUMMARY

## Actions in Progress

- 2007 Progress Report (2000-2005)
- Annual Geoscience Earthquake Working Groups meetings
- Instrumentation improvements
- FEMA/URS Corp. ShakeMap/HAZUS emergency-response planning
- Next year's top priority actions will be presented in closing session