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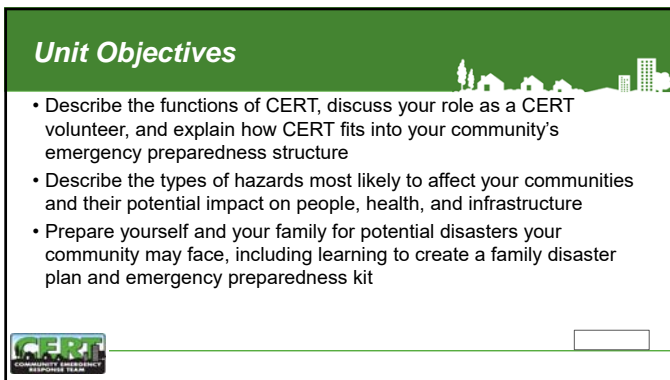
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**Setting the Stage**

But... You are here to learn the skills you need to be well prepared to assist the USC Community, your family, your neighborhood, and possibly even your city!




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**Setting the Stage**

**USC CERT Mission:**

The USC Campus Emergency Response Team (CERT) program is a team of staff and faculty volunteers trained in disaster response, fire safety, light search & rescue, disaster medical operations and other skills. The team serves as a force multiplier to other emergency response teams on campus to support critical response operations following a major emergency or disaster. Team members are also able to support their local communities.



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**Setting the Stage**

Your # 1 Job:

- Take care of yourself first
- Help others on campus, community, neighborhood

**You are #1!!! YOUR safety is always the first priority!!!**



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### Get Involved

- Preparedness requires active participation from all
  - Talk to friends and family about hazards
  - Ask about emergency planning outside at work
  - Make sure you always have a plan
- Training provides skills needed to help others and keeps skills current
  - CERT program provides training, practice, and connection to others
  - Participate in drills and exercises
  - Talk to friends and family about volunteering in their city



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### Types of Disasters

- **Natural** (e.g., earthquakes, wildfires, floods, extreme heat, hurricanes, landslides, thunderstorms, tornadoes, tsunamis, volcanic eruptions, winter storms)
- **Technological & Accidental** (e.g., hazardous material spill, nuclear power plant accident)
- **Terrorism** (e.g., chemical, biological, radiological, nuclear, explosive weapons)



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### Key Disaster Elements

- They are relatively unexpected
- Emergency personnel may be overwhelmed
- Lives, health, and the environment are endangered



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**Local Hazard Vulnerability**

- Identify most common disasters that occur
  - In California: Earthquakes & Wildfires
- Identify possible hazards with most severe impact
- Consider recent or historical impacts
- Identify susceptible locations in the community for specific hazards
- Consider what to expect from disruption of services



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**Infrastructure Damage**

- Resources will be applied to the highest priority need:
  - Police will address incidences of grave public safety
  - Firefighters will suppress major fires
  - EMS personnel will handle life-threatening injuries



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**Damage Related to Structure Type**

- You may not have opportunity to select type of structure when a disaster occurs
- Engineered buildings have performed well in most types of disasters
- Types of damage vary by structure
- Differences in hazards and mitigation between single-family homes and multiple-unit dwellings



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**Home Hazards**

- Gas line ruptures from water heaters or ranges displaced by shaking, water, or wind
- Damage from falling books, dishes, or other cabinet contents
- Risk of injury or electric shock from displaced appliances and office equipment
- Fire from faulty wiring, overloaded plugs, frayed electrical cords



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**Preparing for a Disaster**

- Know local hazards, alerts, warning systems, evacuation routes, and sheltering plans
- Consider important elements of disaster preparedness
- Address specific needs for yourself and people you know



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**Preparing for a Disaster**

- Have the skills to evaluate the situation quickly and take effective action to protect yourself
- Have a family disaster plan and practice the plan with drills
- Assemble supplies in multiple locations
- Reduce the impact of hazards through mitigation practices
- Get involved by participating in training and volunteer programs



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### Earthquakes

Overall Earthquake Risk:

- 75 million Americans in 39 states face significant risk
- Residents of California face the highest risk followed by WA
- 90% probability of a major earthquake in southern California in the next 20 years
- Almost every area of the region will experience strong ground shaking at some point



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### Earthquakes

- Southern California has over 300 active faults



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### Earthquakes



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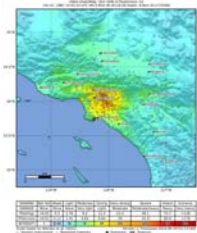

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### Earthquakes

- Whittier Narrows Earthquake Facts
  - 1987, 7:42 am
  - **Magnitude 5.9**
  - Strong shaking near epicenter
  - 20 Seconds
  - 8 deaths
  - Damage was estimated at 100 million

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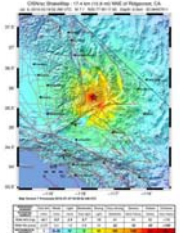

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### Earthquakes

- Northridge Earthquake Facts:
  - Jan. 17, 1994
  - **Magnitude 6.7**
  - Strong shaking near epicenter
  - 7 Seconds
  - Over 40,000 Injured
  - 57 deaths

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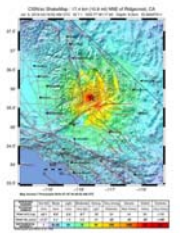

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### Earthquakes

- Ridgecrest Earthquake Facts:
  - July 5, 2019
  - **Magnitude 7.1 with 6.4 and 5.4**
  - Strong shaking near epicenter
  - 7 Seconds
  - 25 Injured
  - 1 death

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### Earthquakes

Magnitude	Intensity	Description
1.0 – 3.0	I	Not felt.
3.0 – 3.9	II – III	Felt indoors & on upper floors, but most do not recognize it as an earthquake.
4.0 – 4.9	IV – V	Felt by nearly everyone, may awaken at night, "stuff" disturbed, walls may make cracking noise.
5.0 – 5.9	VI – VII	Felt by all, many frightened. Slight damage in well built buildings, considerable damage in poorly built/designed buildings. Some chimneys may break.
6.0 – 6.9	VIII – IX	Damage considerable, plumb issues, shifting off foundation, heavy furniture overturned.
7.0 and higher	X or higher	Well-built wooden structures destroyed, masonry structures, & bridges destroyed, rails bent.



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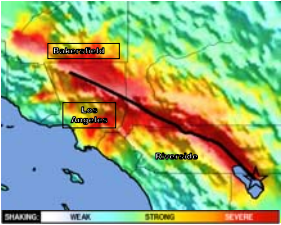
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### Earthquake – Prediction

- **7.8 Magnitude San Andreas Fault EQ:**
  - Geographically widespread
  - Strong ground shaking
  - Duration 1 – 2 minutes
  - OVERDUE!!!
- **Expectations:**
  - 300,000 buildings damaged
  - 1,800 fatalities
  - 53,000 injured
  - 255,000 homeless
  - 1,600 FIRES
  - \$200-\$300 Billion in damage



*Mag 7.8 ShakeOut Scenario Earthquake Instrumental Intensity*



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### Earthquake Response




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**Earthquake Response**

- What NOT to do:
  - Panic
  - RUN
  - Take shelter in a doorway




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**Earthquake Response**

- Hazards to be aware of:
  - The main hazard is falling objects
  - Smell of smoke or fire
  - Down power lines






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**Earthquake Response**

- WHAT IF....
  - You are at home?
  - You are in bed?
  - You are at work?
  - You are at Costco?
  - You are in a grocery store?
  - You are driving?



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**Earthquake Preparedness**

- Keep shoes and a flashlight under the bed
- Secure bookshelves, water heaters, and tall furniture to wall studs
- Install latches on all cabinets, and anchor overhead lighting fixtures
- Secure items that might fall, such as televisions
- Store heavy and breakable objects on low shelves



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**Earthquake Preparedness**

- Move beds away from windows
  - Move or secure hanging objects over beds, couches, and other places where people sit or lie
- Have a licensed professional install flexible pipe to avoid gas or water leaks



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**Earthquake Preparedness**

- Have a communication plan
  - Maintain a paper contact list – with out of state contacts
  - Join your city or county emergency alert system
  - Make sure you receive USC TrojansAlert

Sign up for free emergency alerts  
NotifyLA



**USC TROJANSALERT**



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### Earthquake Preparedness

**California Earthquake Early Warning**

Earthquake Early Warnings  
Now Available Through Wireless  
Emergency Alerts (WEA)

Download the **MyShake**  
Earthquake Early Warning App.

earthquake.ca.gov

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### Personal Protective Equipment

- Helmet/Head lamp
- Goggles
- N95 Mask
- Gloves (work and non-latex)
- Flash light
- Knee pads
- First Aid Supplies
- Triage tags
- Sturdy shoes or work boots

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### Family Disaster Plan

- Where will you meet family members?
- Who is your out-of-state "check-in" contact?
- Will you have an extended stay? Shelter in place? Evacuate?
- How will you escape your home? Workplace? School? Place of worship?
- What route (and several alternates) will you use to evacuate your neighborhood?
- Do you have transportation?
- Did you practice your plan?

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### Earthquake Supplies

Food

- Foods that you normally eat
- Canned food – can opener
- Low sodium
- Comfort Food



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### Earthquake Supplies

Water

- FEMA recommends 1 gallon a day per/person for drinking & 1 gallon a day for sanitation
- Rotate water supplies every 6 months
- Be ready to purify water
  - mixture of 8 drops of **bleach** to a gallon



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### Earthquake Supplies

Supplies for your home kit

- Flashlight/batteries; glow sticks
- Transistor radio
- Work gloves
- Eye protection
- Tools – pry bar
- Gas shut off wrench
- First aid supplies
- Generator – solar charger
- BBQ



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### Earthquake Supplies


Essential Medicines:

- Minimum 2 week supply
- Never take the last one
- Prescription glasses

Critical Papers:

- Insurance, bank, medical records

Cash – low denominations



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### Mitigation

- Mitigation is the reduction of loss of life and property by lessening the impact of disasters and includes any activity that prevents an emergency or reduces effects of hazards
- CERT members should have adequate homeowners coverage
  - Add flood insurance if in a flood hazard area
  - Earthquake Insurance?



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### Structural Mitigation Measures

- Bolt houses to foundations
- Strap propane tanks and chimneys
- Strap mobile homes to their slabs
- Raise utilities



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### Non-Structural Hazard Mitigation

- Anchor heavy furniture
- Secure appliances and office equipment
- Childproof cabinet doors
- Museum Wax or earthquake putty for small items
- Locate and label gas, electricity, and water shutoffs
- Secure water heaters and have flexible gas lines installed

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### CERT Disaster Response

- CERTs respond post-disaster by:
  - Treating life-threatening injuries until professional assistance is available
  - Helping disaster survivors cope with their emotional stressors
  - Locating and turning off utilities, if safe to do so
  - Extinguishing small fires
  - Conducting light search and rescue operations

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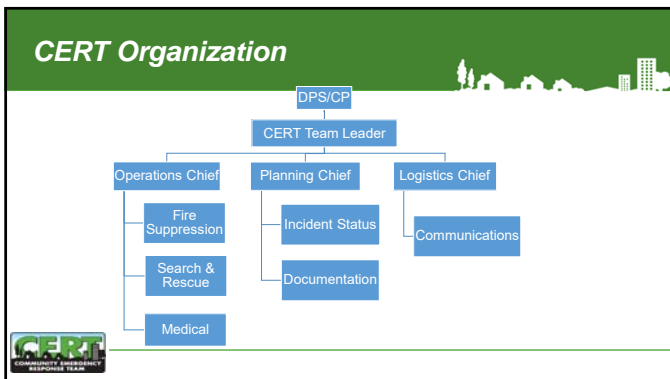
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**USC CERT in Action**



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**Non-Disaster Roles**

- Assist with special events
  - CONQUEST
  - Commencement – wheelchair distribution
- Conduct Fire Extinguisher Training at USC Annual Emergency Preparedness Fair
- Promote CERT at USC Emergency Preparedness Fair



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**Protection for Disaster Workers**

- CERT members are generally protected by:
  - “Good Samaritan” laws
  - Volunteer Protection Act of 1997
  - Relevant State statutes
  - USC Workers Compensation



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**Additional Training & Resources**

- <https://community.fema.gov/PreparednessCommunity/s/welcome-to-cert>
- <https://www.ready.gov/resources>

**SCS SURVIVAL PRODUCTS**  
**ONLINE • BY PHONE**  
 18705 STRATHGEM ST #12, VAN NUYS  
 sosproducts.com  
 800 479-7998  
**OVER 3000 ITEMS TO CHOOSE FROM**  
**COUPON USC DISCOUNT COUPON**  
**10% off**  
**ONLINE & PHONE ORDERS!**  
 Order Instructions:  
 1. Add items to cart  
 2. Check out  
 3. Enter coupon code: USC10OFF  
 4. Place order - Thank you and prepared!

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