

Posters 2007 Humboldt County Fair



The 2007 Humboldt County Earthquake – Tsunami Room featured the Seven Steps to Earthquake and Tsunami Resilience

Welcome to the Earthquake and Tsunami Room



Making our North
Coast Communities
Tsunami Resilient

The most important take-away message



Protecting yourself from injury during the earthquake is where it all begins. You can't evacuate if you are incapacitated by the shaking!

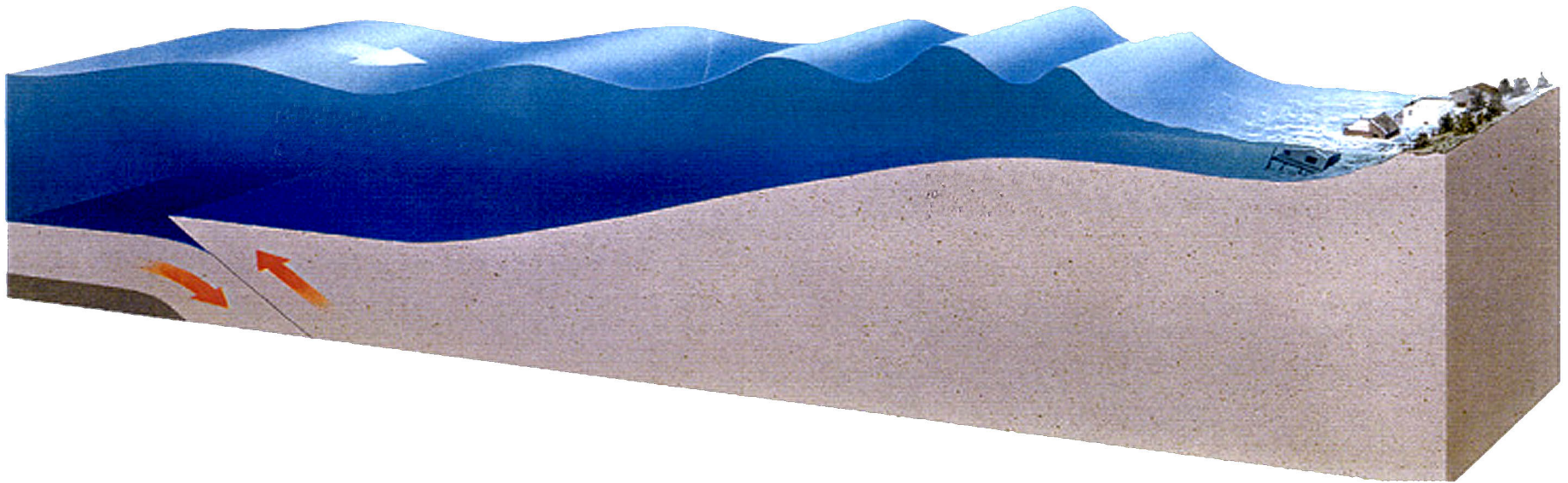


As soon as it is safe to move, get your "grab and go" kit and walk to high ground or inland away from the coast. Take the time to put on shoes as debris may make walking hazardous. Use tsunami hazard zone signs to guide you to a safe area.



Tsunamis are TRICKY! Just when you think the waves are done, another damaging surge may arrive. The largest waves may arrive many hours after the first. Stay away from the coast until officials say it is safe to return.

Welcome to the Earthquake and Tsunami Room



Sponsored by the Redwood Coast Tsunami Workgroup



***Making our North Coast Communities
Tsunami Resilient***

Since 1855, on the North Coast . . .

31 Tsunamis Observed or Recorded

- 4 caused damage
- 4 local source tsunamis
- 22 distant source tsunamis
- 8 tsunami alert bulletins since 1986



2007 Humboldt County Fair Display

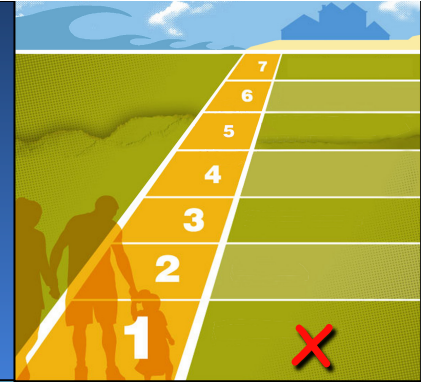
The Seven Steps to Earthquake and Tsunami Preparedness



Begin by talking about preparedness with your family, housemates and work associates

Step #1 Before the Quake

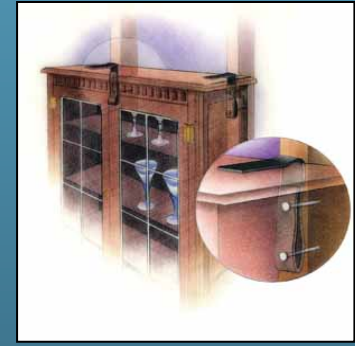
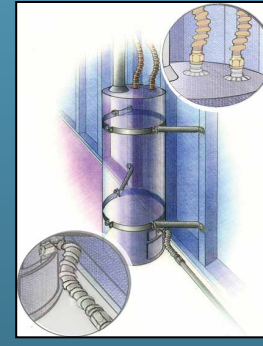
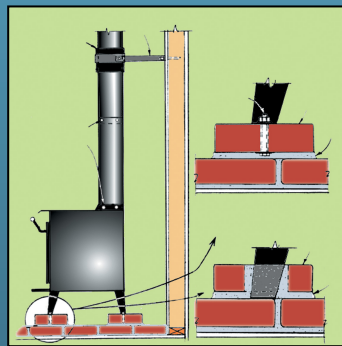
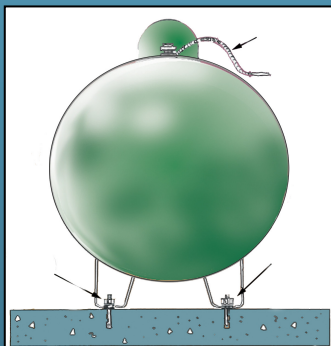
Identify Potential Earthquake Hazards



Identify items that may fall, topple or slide

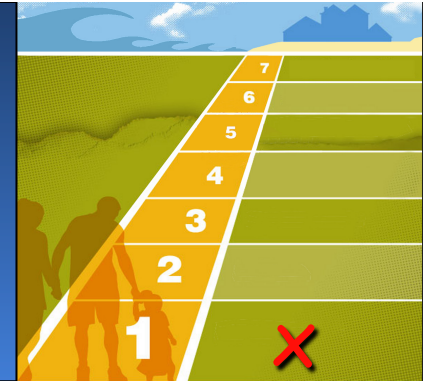


Secure potentially hazardous and valuable items

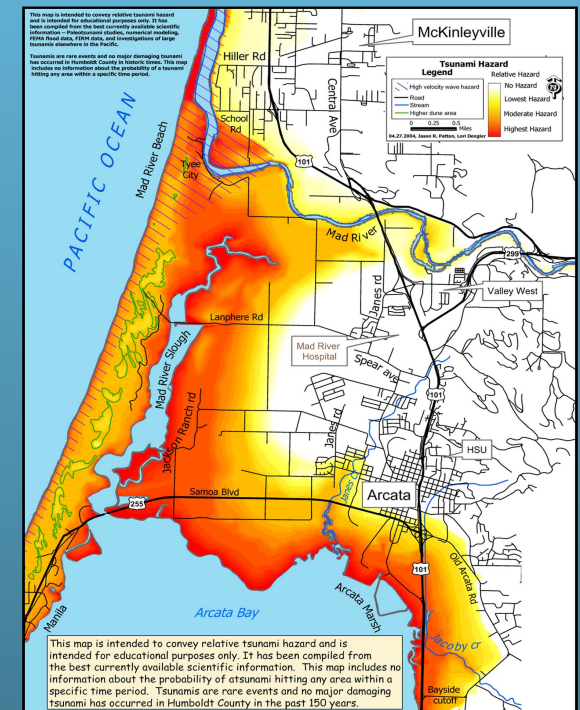
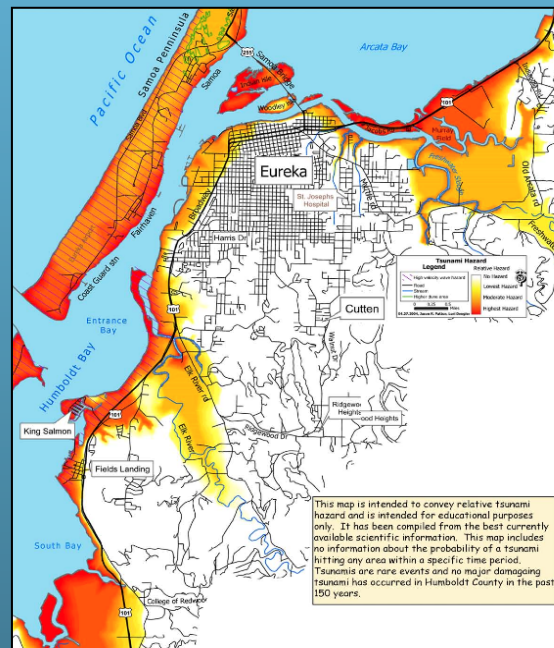
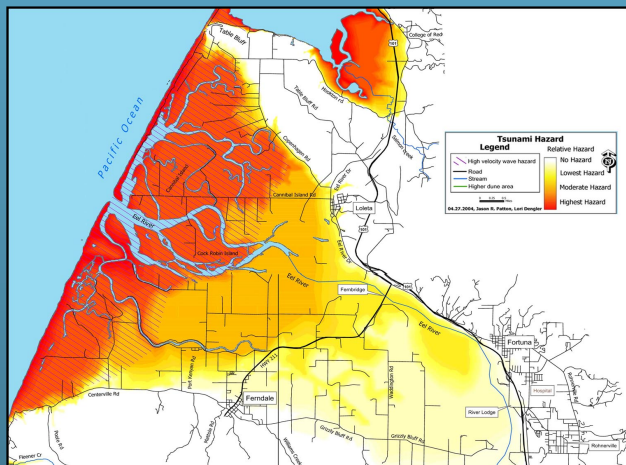


Step #1 Before the Quake

Identify Potential Tsunami Hazards

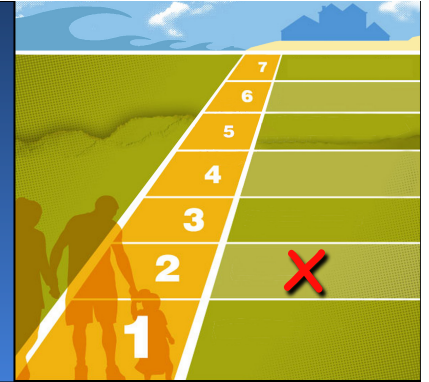


Know your risk. Determine if you live, work, or play in a hazard zone.



Step #2 Before the Quake

Create a Disaster Preparedness Plan



PLAN NOW . . .

To be safe during an earthquake

Practice "DROP, COVER and HOLD"

To respond after an earthquake

Collect critical supplies and attend training



To communicate after an earthquake

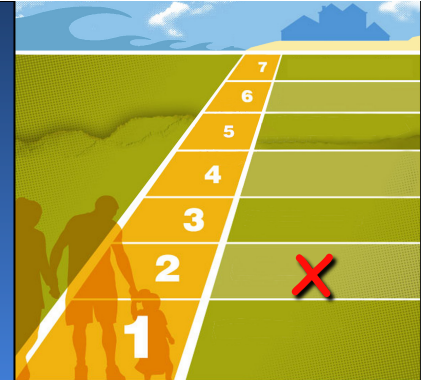
Choose a meeting place and an out-of-the-area emergency contact to relay information

To recover after an earthquake

Consider buying earthquake and/or flood insurance

Step #2 Before the Quake

Include Tsunamis in Your Disaster Preparedness Plan



PLAN NOW . . .

To be safe during a tsunami.

Know if you live/work in a tsunami hazard zone

Know the natural and official tsunami warnings

Natural Warnings — Strong ground shaking, a sudden change in sea level, ocean withdrawal, or a loud roar from the ocean are all Nature's warning that a tsunami may be approaching

Official Warnings — You may be notified of a Tsunami Warning by TV and radio stations, door-to-door contact by law enforcement, on NOAA weather radios, or tsunami sirens

*Plan on what actions you will take if:
on the beach? at home? at work?*

2007 Humboldt County Fair Display



Step #3 Before the Quake

Prepare Disaster Kits

Disaster Kits

Create **PERSONAL**, **HOME**, **WORK**, and **CAR** disaster kits
— prepare to be isolated for at least a week

Essential items to have with you all the time

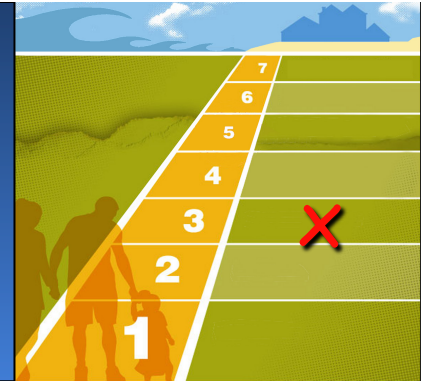
— water, food, flashlight, medications, radio

Store kits in easy-to-carry, sturdy containers

— backpack, duffle bag, covered trash container

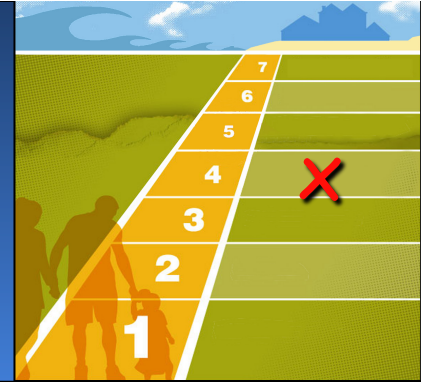
If you live/work in a tsunami zone:

- Know the closest evacuation route
- Keep a backpack with a disaster kit by your door to grab as you evacuate
- Have a NOAA Weather Radio with a self-alert feature at home and at work



Step #4 Before the Quake

Identify Weaknesses and Begin to Fix Them — Earthquakes



Does your building have any weaknesses?



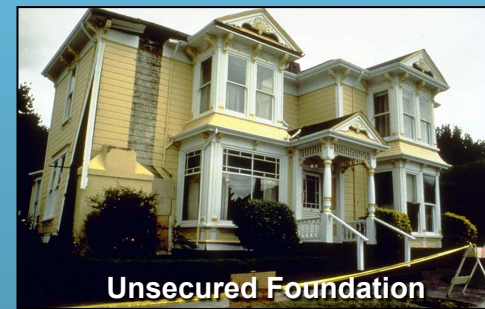
Soft Story



Weak Cripple Walls

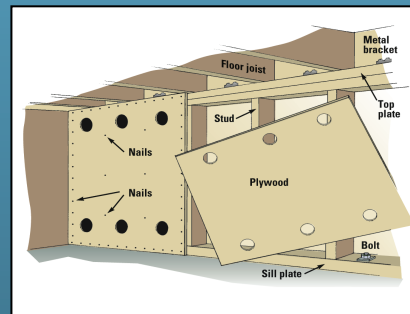
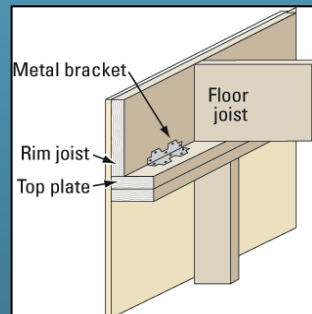


Brick Chimney



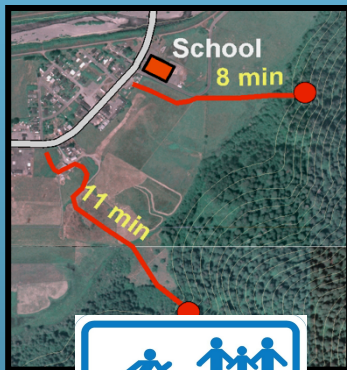
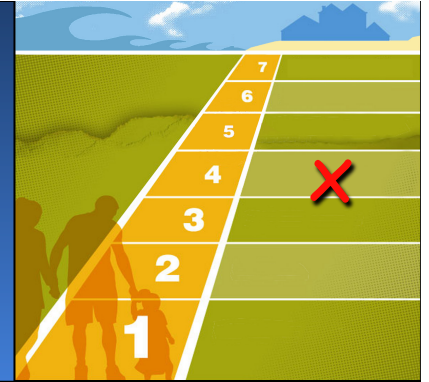
Unsecured Foundation

Begin to fix them.



Step #4 Before the Quake

Identify Weaknesses and Begin to Fix Them —
Tsunamis



Do you know how to evacuate to safe areas?



Are evacuation maps available?



Have evacuation signs been posted?

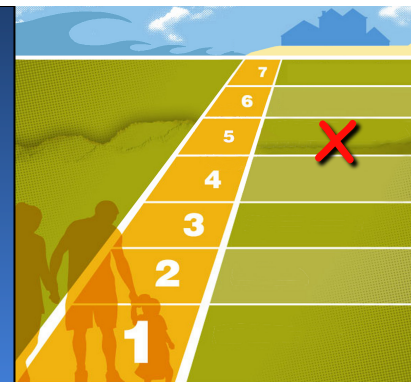


Is your community designated "TsunamiReady"?

Contact your local government officials and find out what planning is being done in your community.

Step #5 During the Quake

Protect Yourself During Earthquake Shaking



If you are indoors

- **DROP** to the floor
- Take **COVER** under a sturdy desk or table
- **HOLD** on to the desk or table leg until the ground stops shaking

If you are outdoors

- **Get into the open** — away from buildings, power lines and trees

If you are driving

- **Stop** as soon as it is safe to do so
- **Stay** inside your car
- **Stay away** from bridges, overpasses and tunnels
- **Move your car** as far out of traffic as possible

If you are in a crowded area, take cover and stay where you are.

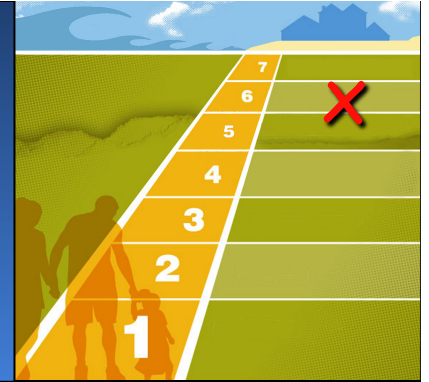
STAY CALM and encourage others to do the same.








DROP, COVER, and HOLD

Step #6 After the Quake

Evacuate  Only if Necessary



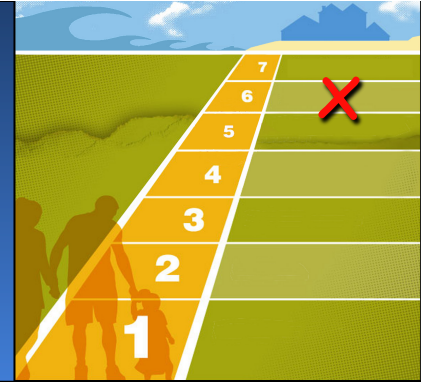
-  *If you are at the beach, move to higher ground immediately no matter how small the earthquake*
-  *If you are in a tsunami hazard zone and the earthquake is very strong, immediately gather your family members, grab your tsunami disaster kit, and WALK to a safe area*
-  *Go on foot*
-  *If evacuation is impossible, go to the upper floor of a sturdy building or climb a tree*
-  *Stay away from the coast until you hear an official announcement that no tsunami is coming*

*If you are NOT in a hazard zone  STAY WHERE YOU ARE.
You are not at risk of a tsunami.*



Step #6 After the Quake

Check for Injuries and Damage  Only if you are NOT in a tsunami hazard zone



Check for injuries

Check yourself first before helping others; protect your face from dust.

Check for damage causing hazardous situations

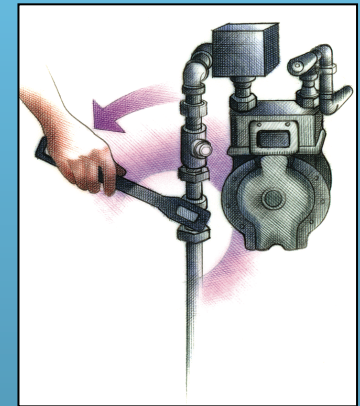
Fires, gas leaks, damaged electrical wiring, downed utility lines, fallen and broken objects, and spills.

If your home is seriously damaged

You need to evacuate. Tell a neighbor or your contact person where you are going. Find out what you should bring with you beforehand.

If your home appears undamaged

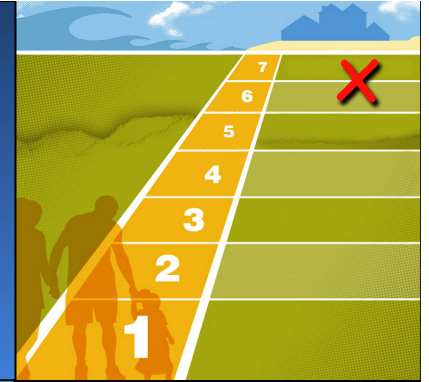
Stay in your home even if the power is out and some items have been damaged. Shelters may be overcrowded and initially lack many services.



Turn off gas only if you suspect a leak. Only your utility company can turn the gas back on.

Step #7 After the Quake

Follow Your Disaster Preparedness Plan 
Earthquakes



Safety first

Never use matches or candles, camp stoves, or anything that produces sparks indoors



Be in communication

- *Use your radio for information and advisories*
- *If you have phone service, make ONE call to your out-of-the-area contact — ask them to contact other friends and relatives*
- **STAY OFF THE PHONE**



Check your neighbors



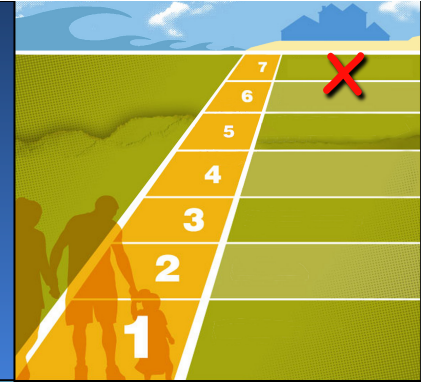
Check your food and water supplies

EXPECT AFTERSHOCKS

Some may be large enough to do additional damage.

Step #7 After the Quake

Follow Your Disaster Preparedness Plan 
Tsunamis



The first surge or wave is almost never the largest



Successive waves may be spaced 10 or more minutes to an hour apart

Danger may last 8 hours or longer



Listen to your NOAA Weather Radio
for advisories and instructions



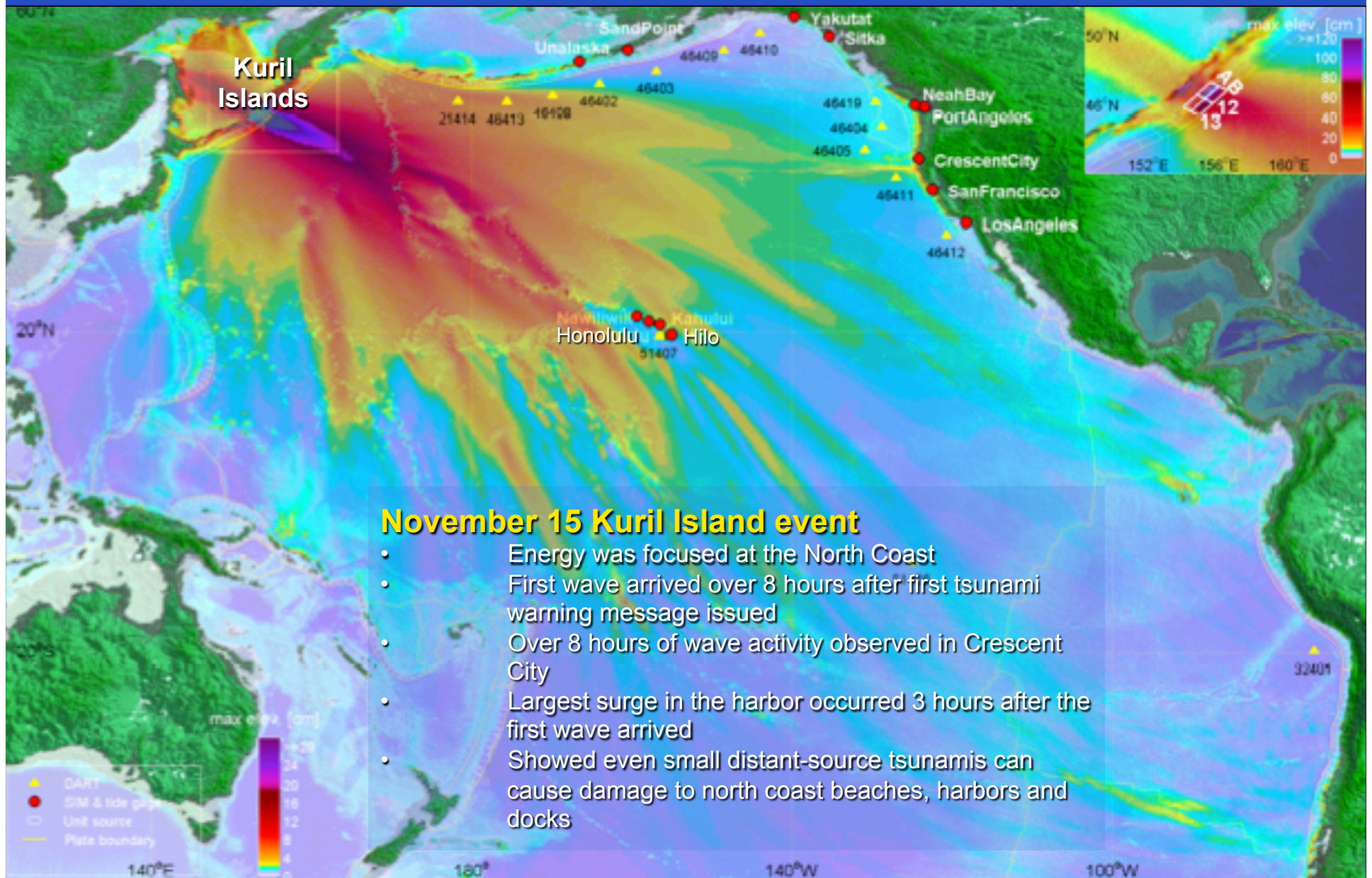
Never go to the coast to watch for a tsunami. Tsunamis move much faster than you can run. Driving to the coast hampers evacuation.

If you evacuate — Stay away from low-lying costal areas until an official allows you to re-enter the area.

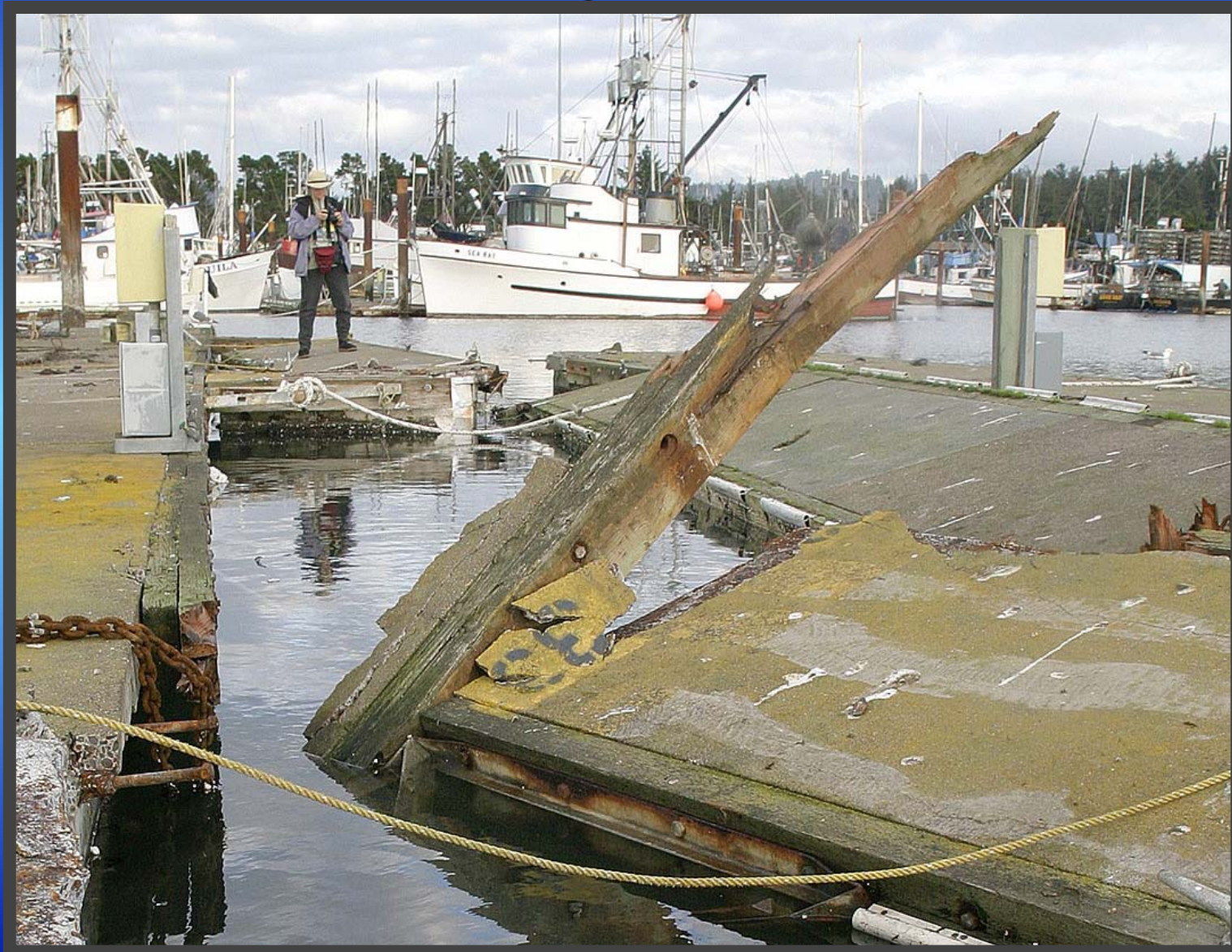


Sightseers waiting for the 1960 tsunami in Hilo, Hawaii. Many of these people did not survive the surge.

November 15, 2006 Tsunami




\$9.2 Million in Losses to the Crescent City Small Boat Basin

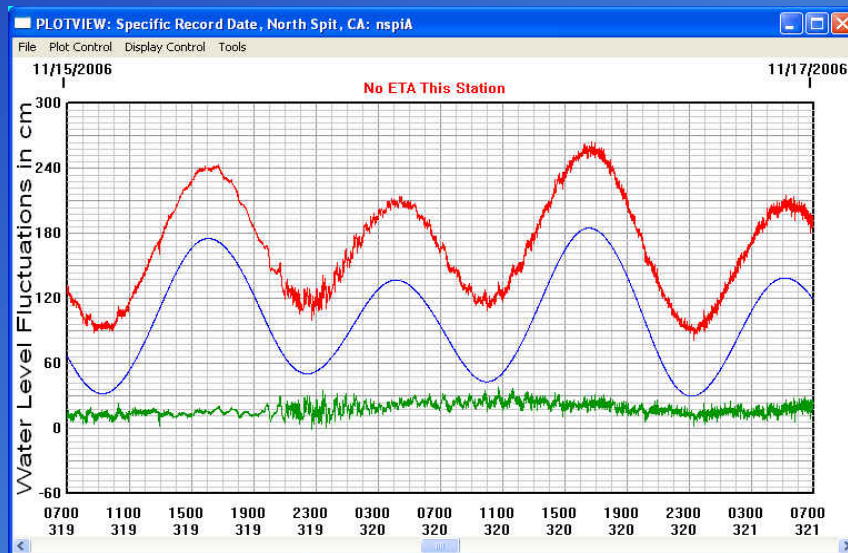


Lessons Learned from the November 15, 2006 Tsunami

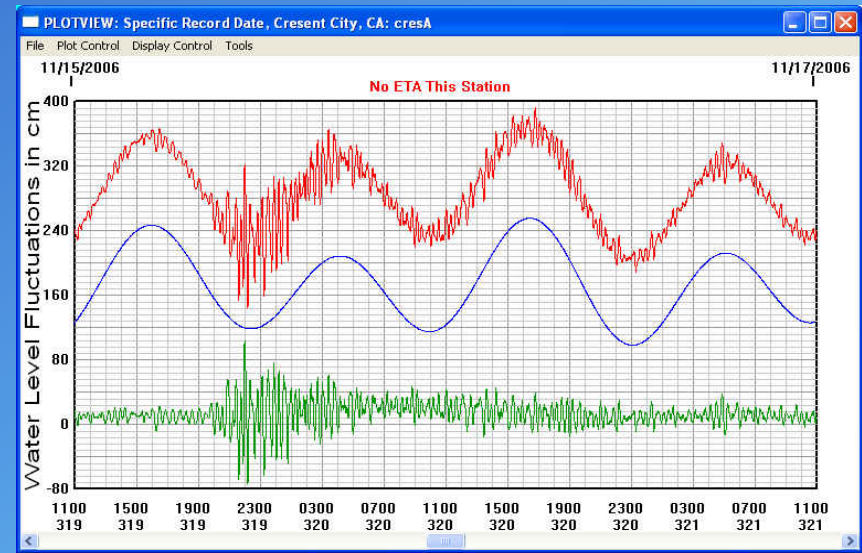
 **Tsunamis can cause damage even if nothing is flooded**

 **On our coast, the first wave is not the largest**
On November 15 - the largest surge was the 6th wave and arrived almost 3 hours after the first wave

 **Tsunami waves can continue to arrive for many hours**



Humboldt Bay



Crescent City

You may find out that a TSUNAMI is coming in two ways:

Natural Warning



For a large, nearby earthquake or submarine landslide, there will be **no time to issue an official warning**.

If you:

FEEL strong ground shaking

SEE sudden change in sea level or ocean withdrawal

HEAR a loud roar from the ocean

immediately move to higher ground or inland

Stay away from low coastal areas until told by an official source that the danger has passed.

Official Warning



You may be notified that a Tsunami Warning has been issued by:

TV and radio stations, door-to-door contact by law enforcement, on NOAA weather radios, or in some cases by outdoor siren.

Move away from the beach and seek more information without using a phone — tune into a local radio or television station for more information. Follow the directions of local authorities which may include evacuating low lying coastal areas.