

Zoom Meeting General Information

- Keep your *sound muted* except when speaking
- Keep your *camera on* – and remember it is on!
- ASL Interpreters should be visible by everyone for the entire meeting
- Click “[Live Transcript](#)” to manage turn subtitles on/off or adjust size (Mobile devices - manage options from Zoom settings, meetings section)
- Ask questions via [Chat](#) or use the “[raise hand](#)” feature (within “reactions” menu)



We Will Begin Shortly

Welcome!



**ECA Bay Area
August 25 Summer Workshop**

Co-Chairs, ECA Bay Area Coordinating Committee

Dena Gunning

Central County Fire (San Mateo)

Daniel Homsey

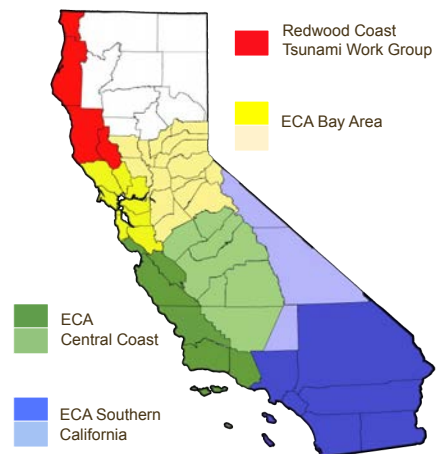
City and County of San Francisco

Ray Bonilla

Kaiser Permanente

Earthquake Country Alliance

- 3000+ *Public-Private-Grassroots* leaders
- *Statewide Sector-based committees and Outreach Bureaus* develop resources and deliver programs
- Local *Regional Alliances* organize meetings and outreach activities
- California's Office of Emergency Services provides FEMA funding for ECA activities
- USC's Southern California Earthquake Center (SCEC.org) administers ECA



SC/EC
AN NSF+USGS CENTER

**Earthquake
Country
Alliance**

Join: EarthquakeCountry.org/alliance

ECA Bay Area Coordinating Committee

- Coordinating Committee Chairs: **Ray Bonilla**, Kaiser Permanente
Dena Gunning, Central County Fire Dept. (San Mateo County)
Daniel Homsey, City and County of San Francisco NEN
 - Communications Coordinators: **Susan Garcia**, USGS
Lia Turk
 - Events Bureau Coordinator: **Chief David Cosgrave**, Coastside Fire Protection District
Kacey Treadway, San Mateo Consolidated Fire
 - Media Bureau Coordinators: **Janet Ruiz**, Insurance Information Institute
Jennifer Strauss, UC Berkeley
 - Membership Coordinator: **Wendi Ellis**, US Department of Health and Human Services
 - Participation Bureau Coordinator: **Theresa Langdon**, Alameda County Office of Emergency Services
 - Regional Workshops Coordinators: **Jeff Airth**, SFO
 - Sector-Based Committee Coordinator: **[Open]**
- SCEC Liaison for ECA Bay Area: **Sharon Sandow de Groot (USC/SCEC)**
bayarea@earthquakecountry.org

Agenda

How ShakeAlert Works to Provide Earthquake Early Warning Alerts
Dr. Angela Chung (Berkeley)

Sharing Strategies: Tips for using ECA Resources & Messaging
Jason Ballmann (Southern California Earthquake Center)

Mini Awards: 2021 Recipient Presentations & 2022 Announcement
Mark Benthien (Southern California Earthquake Center)

Quake Break: Bay Area Seismic Activity since last workshop
Dr. Austin Elliott (USGS)

ShakeOut 2021 & ECA Statewide Updates
Mark Benthien (Southern California Earthquake Center)

Mitigation Moment: Resources, information, & updates
Anne Rosinski (FEMA Region 9)

Updates from California Earthquake Authority
Annde Ewertson (CEA Mitigation Director)

**How ShakeAlert Works to Provide
Earthquake Early Warning Alerts**

Dr. Angela Chung
Berkeley

**Sharing Strategies:
Tips for using ECA Resources & Messaging**

Jason Ballmann
Southern California Earthquake Center

**ECA Bay Area Mini Awards:
2021 Recipient Presentations
&
2022 Announcement**



Hively

- ◆ Social services agency serving low-income children & families in Alameda County
- ◆ Resources include: training & support for child care providers; child care subsidies; family-strengthening classes; community outreach (free food, diapers, clothing & housewares)

“

Our mission is to provide resources that strengthen and support children and their families.”

RESULTS & IMPACT from grant award

12 child care providers

received earthquake safety supplies and attended earthquake safety training

132 children and **18 child care staff** are now benefiting from a safer environment

13

Child Care Providers are Better Prepared for an Earthquake

"The training gave us an idea of what to expect, how to protect ourselves, and how to be prepared so when an earthquake happens, things will be easier for us. Being prepared can bring a sense of calm. It is essential to keep the children calm as well."



14

***Supplies
in Action***

**cabinet bolted
to wall with
furniture straps
and printer secured
with electronics
straps**



***Supplies
in Action***

**books
secured with
bookshelf
straps**



Supplies in Action

**museum
putty secures
large box on
top of cabinet**



17

What did you learn about earthquake safety?

*“To prepare
safety bags &
stock up on
essentials”*

*“New ways to
hold down
furniture and
anchor
objects that
might fall”*

*“Do more
practice
safety drills &
play safety
games with
the kiddos”*

18

What Changes Will You Implement?

“I’ll re-check my home [child care] environment to make sure furniture & cabinets are secure”

“Update supply checklist for a disaster”

“I’ll have an earthquake drill more than once every six months”

“Teach ‘rabbits in the hole’ idea to kids”

“Shoes and small bag next to my bed”

“Getting a big drum of water for cooking”

THANKS!

Hively is grateful for Earthquake Country Alliance’s partnership in supporting earthquake safety and preparedness for child care providers!



Martinez Area CERT Senior Community Center-Meals on Wheels Earthquake Hazard Mitigation

ECA Mini Awards

Secure Your Space-Community Facility

Project Scope

Nonstructural Earthquake Hazard Risk Assessment

Implement Mitigation Measures

Earthquake Safety & Resilience Outreach to Seniors

Impact

Mitigation of High/Moderate Risk Nonstructural Earthquake Hazards

Secure Your Space Workshops (Zoom)



COVID-19 Challenges

Facility Access

Work Team Logistics

New Opportunities

CERT & Senior Center Partnership

Zoom-based education and outreach

“Fastenator” Roadshow Unit

Implementation Tips

Be Flexible – Adapt to Changing Circumstances – Have Contingence Plans

Maintain Frequent Communication

Under Promise – Over Deliver

Plan on Follow-up

Plan – Prepare – Do – Evaluate - Share

martinezcet.org





Finding Wall Studs



Scan the wall with a stud finder



Mark the stud location; secure strap with hardware

Self Check - Question 2

What non-structural hazards do you see?

What non-structural hazards do you see?



Martinez Area CERT Non-structural Earthquake Hazard Mitigation Mobile Device Installation Demonstration Unit

January 31, 2021



Sonoma County Department of Emergency Management



ECA Mini Award: Residential Home Fastening Starter Kit

Project Concept

- Use social media campaign to boost Earthquake awareness.
 - Fire focus in community makes Earthquake readiness more difficult to garner attention
- Monitor Spanish/English response and views
 - Project set to distribute 50% to Spanish Speakers -this happened organically
- Use project to validate value of social media for Spanish speaking populations
 - Responses received in Spanish and English on both Spanish ads and English Ads

Ads

Sonoma County Emergency Management
 Published by Nancy Brown · April 8 at 12:42 PM · 🌐

Gratis -10 kits de fijación para el hogar
 Asegure su hogar en caso de terremoto. El primer paso es Asegurar su Espacio Interior. Tenemos 10 kits de fijación para el hogar para las primeras 9 personas que respondan que quieren uno a esta publicación. Solo hay una calificación, tiene que enviarnos una foto de las correas del kit puestas en su lugar antes del 30 de abril. Si está listo para prepararse comente "Envíame uno" a esta publicación. Recuerde, los primeros 9 en responder recibirán un kits. Solo uno por familia. Dirección postal dentro del condado de Sonoma.

Sonoma County Emergency Management
 Published by Nancy Brown · April 8 at 1:47 PM · 🌐

FREE! Residential Home Fasteners Starter Kit!
 Make your home safe in an earthquake. Stop one is Secure your Interior Space. We have 10 Resident Home 10 people who reply they want one to this you have to send us a photo of your straps your ready to get prepared comment "Send Remember, first 10 to respond will get the Mailing address in Sonoma County.

Sonoma County Emergency Management
 Published by Nancy Brown · April 8 at 1:47 PM · 🌐

FREE! Residential Home Fasteners Starter Kit!
 Make your home safe in an earthquake. Stop one is Secure your Interior Space. We have 10 Resident Home 10 people who reply they want one to this you have to send us a photo of your straps your ready to get prepared comment "Send Remember, first 10 to respond will get the Mailing address in Sonoma County.



2,291 People Reached
 302 Engagements
 Boost Again

Sonoma County Emergency Management
 Published by Nancy Brown · April 20 at 1:49 PM · 🌐

FREE! Residential Home Fasteners Starter Kit!
 Make your home safe in an earthquake. Stop one is Secure your Interior Space. We have 10 Resident Home Fastening Kits to the first 10 people who reply they want one to this post. Only one qualification, you have to send us a photo of your straps in place by May 30th. If your ready to get prepared comment "Send Remember, first 10 to respond will get the Mailing address in Sonoma County. <https://socoemergency.org/gethttps://www.earthquakecountry>



2,376 People Reached
 207 Engagements
 Boost Again

Sonoma County Emergency Management
 Published by Nancy Brown · April 20 at 1:47 PM · 🌐

Gratis -10 kits de fijación para el hogar
 Asegure su hogar en caso de terremoto. El primer paso es Asegurar su Espacio Interior. Tenemos 10 kits de fijación para el hogar para las primeras 10 personas que respondan que quieren uno a esta publicación. Solo hay una calificación, tiene que enviarnos una foto de las correas del kit puestas en su lugar antes del 30 de mayo. Si está listo para prepararse comente "Envíame uno" a esta publicación. Recuerde, los primeros 9 en responder recibirán un kits. Solo uno por familia. Dirección postal dentro del condado de Sonoma. <https://socoemergency.org/.../peligros-locales/terremotos/>



2,088 People Reached
 174 Engagements
 Boost Again





Ayudando Latinos A Soñar

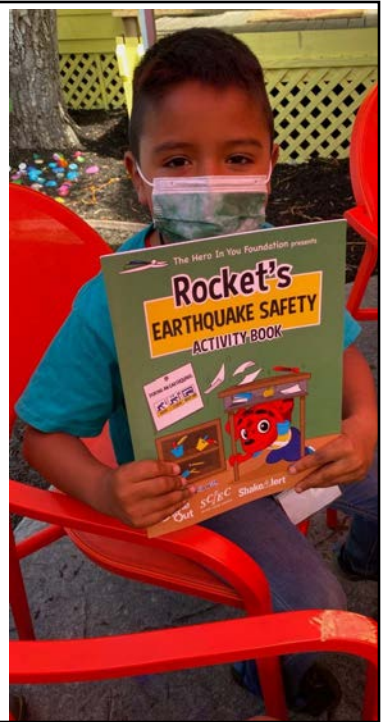
(Helping Latinos Dream)

A Latino Cultural Arts and Social
Services Program in Half Moon Bay



Rocket's Earthquake Safety

Summer Camp 2021







ECA Mini Awards Update



- 27 sites
- 150-210 employees + volunteers
- 6 main categories of services
 - Education
 - Housing
 - Financial and crisis assistance
 - Health and wellbeing
 - Community resource focuses
 - Community engagement

Progress

- Secure a smaller community organization or workplace kit
- Facilities manager at CAP Sonoma
- Sloan House
 - Shelter for women and children
 - COVID-19
 - Move back
- Focus on installation for bookshelves and cabinets
- 2x4 L brackets, straps added extra protection

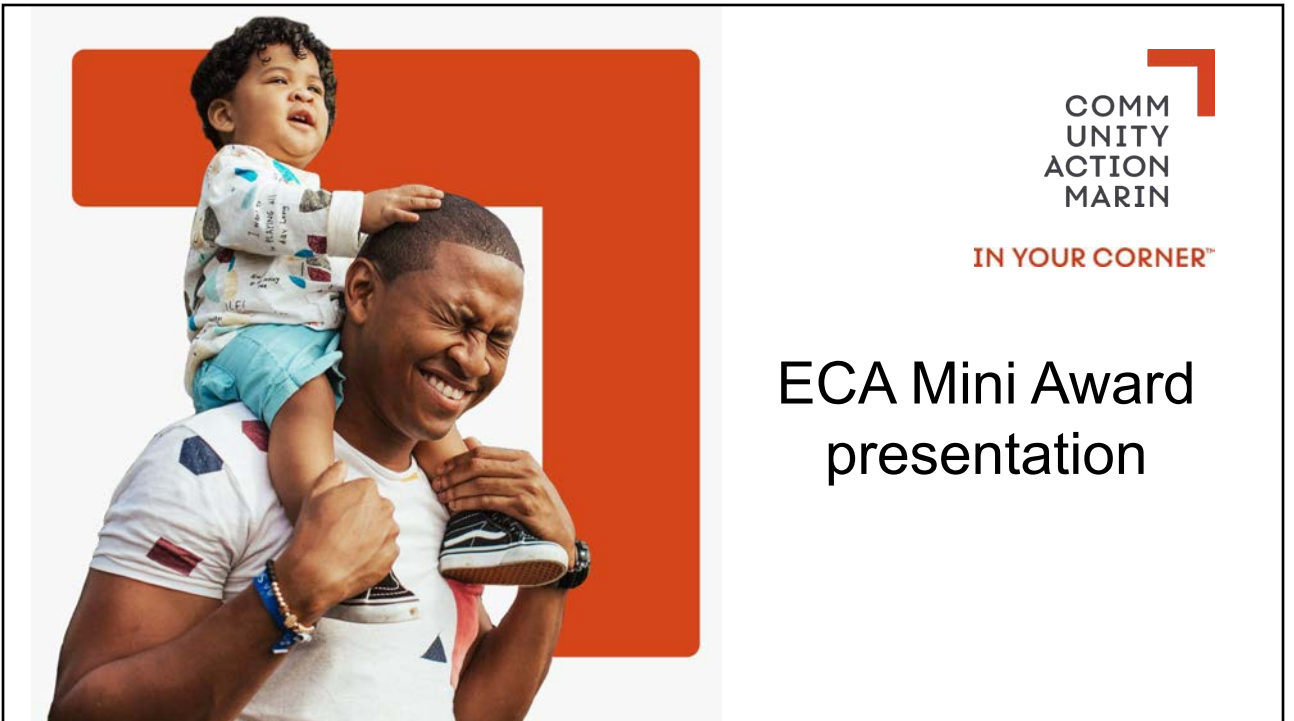


Progress

- Easy to install
- Delays because of move and COVID-19 protocols
- Next steps to finish installing



Thank you ECA!



COMM
UNITY
ACTION
MARIN

IN YOUR CORNER™

ECA Mini Award presentation

>>> Who We Are

COMM
UNITY
ACTION
MARIN

- Marin County's Designated Anti-Poverty Agency and part of a national network of 1,100+ Community Action Agencies birthed out of President Lyndon B. Johnson's War on Poverty and the Economic Opportunity Act of 1964
- Marin's largest nonprofit social services provider, with 200+ staff working at 21 sites throughout the county
- Working to meet the needs of community through child care, mental health, economic mobility, homeless outreach, safety net, and other support services from crisis to thriving

COMM
UNITY
ACTION
MARIN

CHILDREN AND
FAMILY SERVICES

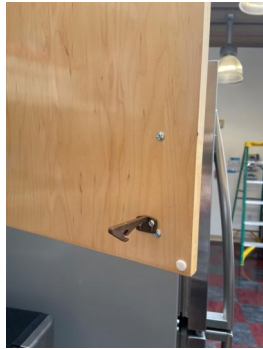
MENTAL
HEALTH

SAFETY
NET

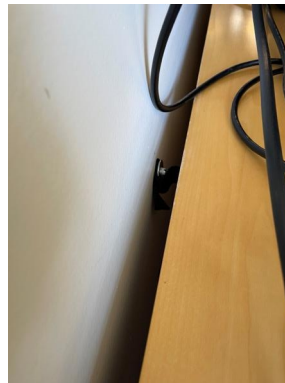
ECONOMIC
OPPORTUNITY/
WORKFORCE
DEVELOPMENT



>>> EQ Photos



>>> EQ Photos 2



2022 ECA Bay Area Mini Awards

- **Purpose:** assist ECA Bay Area Members to improve earthquake resilience by promoting mitigation, awareness, and preparedness, and multiply impact of programs
- **9 awards** (purchases of \$500 to \$1000 each)
- **Priority** given to proposals for mitigation and education activities; other earthquake preparedness activities can also be proposed, *except* supplies or supply kits
- **\$500 and \$1000 packages** of materials will be listed, however you can also propose other items



Secure **WORKPLACE \$500 Package**

ITEM #	ITEM NAME	IMAGE	QUANTITY
4180-04	Furniture Strap		15
4740	File Cabinet Strap		15
5040	Bookcase Strap		15
4173	Home Electronics Safety Strap, Black		30
4338	A-Mazing Picture Hook, 4 Pack		10
4250	Kitchen & Cabinet Door Latch, 4 Pack		10
88111	QuakeHOLD! Museum Putty		10

Pre-Identified \$500 and \$1000 Mitigation Options

Example packages (or you can propose other items to be purchased):

Step 1 “Secure Your Space” Materials

- *Secure a School* (\$500 and \$1000 options)
- *Secure a Community Organization or Small Workplace* (\$500 and \$1000 options)
- *Secure 10 Living Spaces* (\$500)
- *20 Residential Home Fastening Starter Kits* (\$500)

SAFE-T-PROOF® Home Fastening Starter Kit \$500 Package



SAFE-T-PROOF FASTENER RECEIVES ICC-ESR (E8167) Safe-T-Proof.com
 The year 2022 marks the first time an adhesive type of earthquake fastener has received an evaluation report from the International Code Council. These reports are used by structural engineers around the world as confirmation that the item being evaluated by them works as described and is manufactured to the highest (ICC-ES) standards of traceability and consistency.

Pre-Identified \$500 Education Options

Choose one of these packages (or you can propose other items to be purchased):

Step 2 “Plan to Be Safe” Resources

- 1250 *Your Neighborhood* “shingle” workbooks
- 500 *Rocket’s Earthquake Adventure* storybooks (for children ages 3-9) (English and Spanish, or combo)
- 500 *Rocket’s Earthquake Adventure* activity books (for children ages 3-9) (English only)
- Others TBD



Map Your Neighborhood Workbooks

\$500 Mini Award: At least 500 “shingle” workbooks will be available as part of a \$500 ECA mini-award (we are determining optimum pricing), shipping included.

A free program designed by the Washington Emergency Management Department to improve readiness at the neighborhood level. MYN teaches neighbors to rely on each other. It takes just ONE person to begin. Using a 90 minute DVD to facilitate the MYN meeting and accompanying materials provided at no cost, neighborhood leaders can help get their communities get ready for a disaster.



Rocket's Earthquake Safety Adventure

\$500 Mini Award: 500 copies including shipping

Hop onboard the amazing Safety Machine! It's time to learn how to stay safe during an Earthquake!

Join Rocket the Safety Dog as he teaches you how to stay safe when the earth starts to move unexpectedly. Take a ride with Rocket on his trusty Safety Machine, delving beneath the earth to find out where earthquakes come from. Check into the Safety Lab with Rocket to learn the Earthquake Safety Rules and prepare for a real “shaker”. Rocket makes staying safe FUN for Ages 3-7!

Learn More about Rocket Rules books, videos, and events at RocketRules.org

2022 ECA Bay Area Mini Awards Timeline

- **October 26:** Application open for submissions
 - www.EarthquakeCountry.org/bayarea
- **November 16:** Application deadline
- **December 7:** Notification made to all applicants
- **December 16:** Final acceptances and invoices due
- **January 31:** All purchases made and delivered
- **May 31:** Projects completed
Summary survey completed
- **Summer:** Mini Award recipients present at the ECA Bay Area Regional Workshop

Quake Break: Bay Area Seismic Activity since last workshop

Dr. Austin Elliott
United States Geological Survey



Quake Break

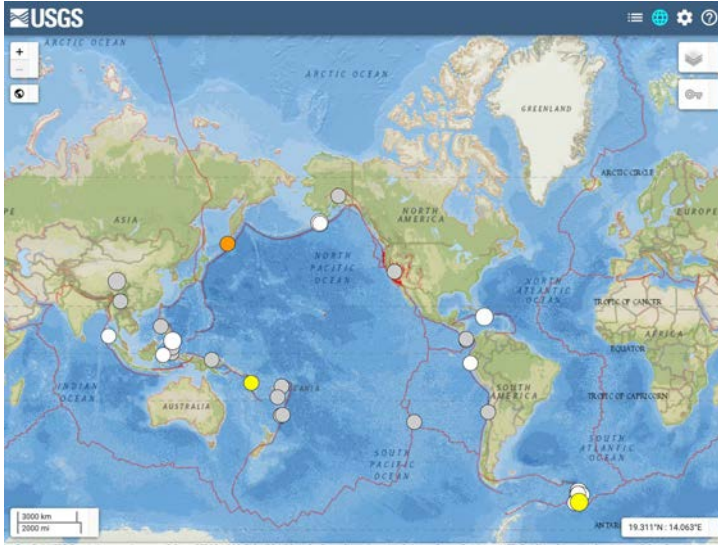


Animation: Rebecca Mok

Austin Elliott, PhD
Research Geologist
U.S. Geological Survey
Earthquake Science Center
Moffett Field, CA

Since the last ECA workshop...

Earth has had some whoppers!



- Alaska M8.2 (& 6.9)
- Sandwich Islands M7.5 & 8.1 etc.
- Qinghai, China M7.3
- Haiti M7.2
- Talkeetna, AK M6.1
- M 6-7 in Peru, Chile, Panama, Indonesia, Philippines, Tonga, Vanuatu...

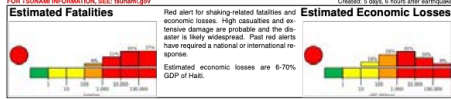
Haiti still reeling from Aug. 14th quake



USGS Earthquake Shaking **Red Alert**

M 7.2, Nippes, Haiti
 Origin Time: 2021-08-14 12:23:08 UTC (04:08:29:08 local)
 Location: 18.67°N 73.73°W Depth: 10.0 km

USAID **PAGER** Version 11
 Created: 5 days, 6 hours after earthquake



Estimated Population Exposed to Earthquake Shaking

Estimated Population Exposed (as of 2019)	1	10,272K	14,264K	5,433K	939K	475K	685K	51K	0
Estimated Maximum Mercalli Intensity	I	II	III	IV	V	VI	VII	VIII	IX
Perceived Shaking	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
Potential Damage to Structures	None	None	None	Y. Light	Light	Moderate	Mod./Heavy	Heavy	Y. Heavy
Potential Damage to Nonbuilding Structures	None	None	None	Y. Light	Moderate	Mod./Heavy	Heavy	Y. Heavy	Y. Heavy

Population Exposure
 population per 1 sq. km from London



PAGER content is automatically generated, and only considers losses due to structural damage. Limits of input data, shaking estimates, and loss models may add uncertainty.
<https://earthquake.usgs.gov/earthquakeevents/pager/us0000058/pager>

USAID Fact Sheet #47
 Fiscal Year (FY) 2021

Haiti – Earthquake

AUGUST 24, 2021

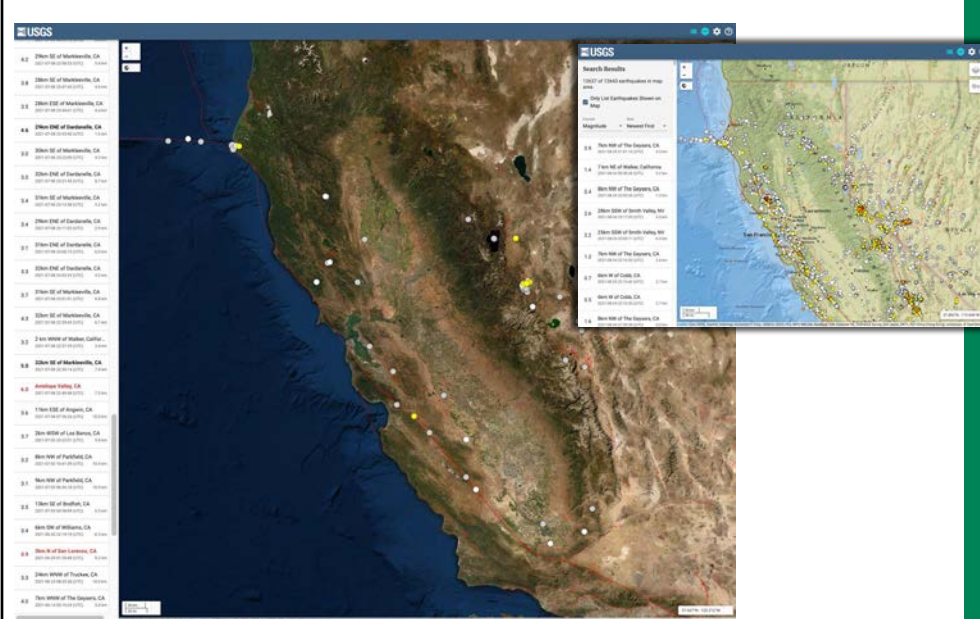
SITUATION AT A GLANCE

2,207	12,268	320	129,929	2.1 MILLION
Earthquake Related Deaths Reported in Haiti Gulf - August 2021	Estimated Number of Earthquake Related Injuries in Haiti Gulf - August 2021	Number of People Missing as a Result of the Earthquake Gulf - August 2021	Estimated Number of Houses Damaged or Destroyed Gulf - August 2021	People Displaced to Shelters - 199K Local VI - or Aftersh Shaking 156K - August 2021

- More than 119,000 people urgently require safe drinking water due to damage to water infrastructure, according to the GoH and UNICEF.
- More than 8,300 people displaced by the earthquake are sheltering in 26 sites in Nippes and Sud, according to IOM.
- JTR-Haiti—including the USCG—conducts 311 missions, performing nearly 425 medical evacuations and transporting more than 136,000 pounds of relief commodities to affected areas.
- USAID/BHA releases an additional 720 MT of contingency food stocks to WFP to support earthquake-affected populations.



Bay Area / NorCal region quakes

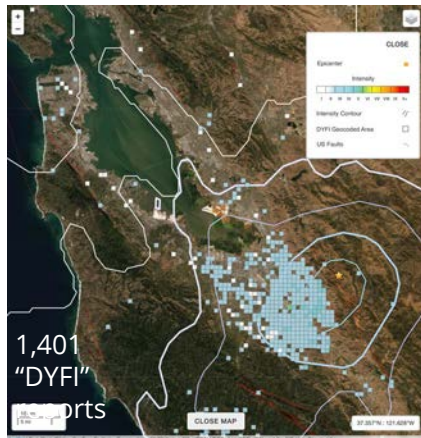


- USGS recorded **12,600+** earthquakes in NorCal since May 19th
- 105 greater than M3.0
- Notable regional stand-outs:
 - Tahoe M4.2
 - Petrolia M5.1
 - San Lorenzo (East Bay) M3.9
 - Alum Rock M3.6
 - Antelope Valley (Eastern Sierra) M6.0
 - Bakersfield M3.1

South & East Bay quakes



M3.6 Alum Rock June 3 5:15am

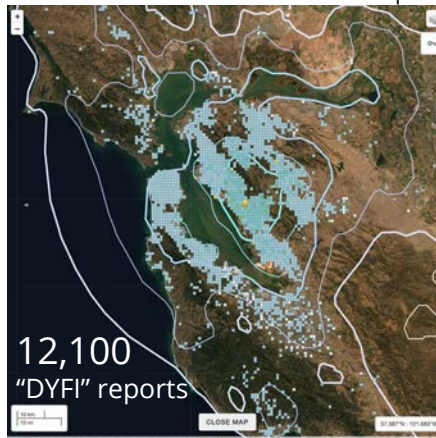


Speed of Alert
 Initial alert after origin time: 4.7 s
 Final alert update after origin time: 6.5 s

Magnitude Accuracy
 Initial ShakeAlert: M4.50
 Final ShakeAlert: M3.70
 ANSS report: 165 s after origin, M3.60



M3.9 San Lorenzo June 28 6:29pm



Speed of Alert
 Initial alert after origin time: 4.0 s
 Final alert update after origin time: 24.1 s

Magnitude Accuracy
 Initial ShakeAlert: M4.20
 Final ShakeAlert: M4.10
 ANSS report: 193 s after origin, M4.10



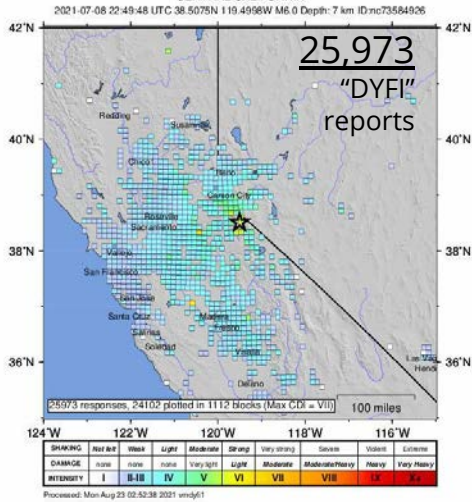
What a difference a little extra magnitude makes!
 (and time of day)

Antelope Valley Earthquake

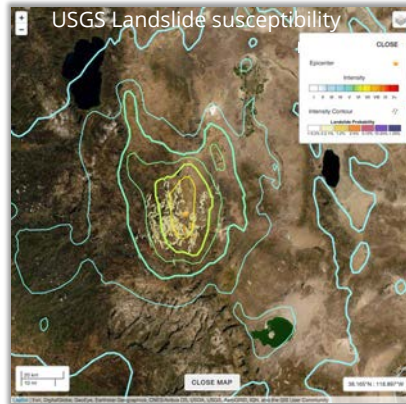
M6.0 July 8 3:49pm

USGS Community Internet Intensity Map
CENTRAL CALIFORNIA

<https://www.usgs.gov/news/magnitude-6.0-earthquake-california>



"Slinkard Valley fault"



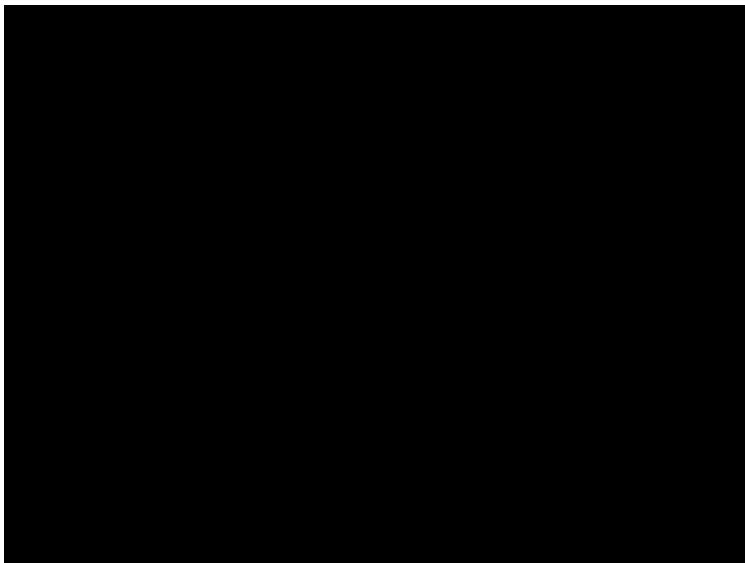
2011 grad student Austin @ Slinkard Valley



Antelope Valley Earthquake



recorded on the 18th floor in San Francisco



Sandwich Islands sequence



- Mainshock pair: 7.5 & 8.1
- 230 significant aftershocks, 7 > M6, incl. 7.1, 6.9, 6.8

USGS Magnitude 4.5+ Earthquakes, Past Month
229 of 699 earthquakes in map area.

Only List Earthquakes Shown on Map

Format: Magnitude | Sort: Largest Magni...

Magnitude	Region	Time (UTC-0)	Depth (km)
8.1	South Sandwich Islands region	2021-08-12 11:35:20	48.3
7.5	South Sandwich Islands region	2021-08-12 11:32:54	63.3
7.1	South Sandwich Islands region	2021-08-22 14:33:30	14.0
6.9	South Sandwich Islands region	2021-08-16 04:10:36	14.0
6.8	South Sandwich Islands region	2021-09-21 17:45:08	11.0

M 8.1 - South Sandwich Islands region
2021-08-12 11:35:20 (UTC) | 58.416°S 25.321°W | 48.3 km depth

Overview
Seismic observations suggest this earthquake is part of a complex seismic sequence. Our current interpretation is that this earthquake is the mainshock to a M7.5 that occurred ~170s earlier. The location, depth, mechanism, and magnitude of this earthquake is preliminary and less well constrained than typical events of this size due to interference from the preceding M7.5 foreshock. Research is being conducted on this sequence to better understand the faulting geometry and details of rupture. This analysis will take time and our understanding will likely evolve. This page will be updated as we learn more about these interesting events.

Interactive Map
Regional Information
Did You Feel It?
ShakeMap
FAFDR
Technical
Origin
Moment Tensor
Waveforms
Download Event KML
View Nearby Seismicity

ShakeOut & ECA Statewide Update

Mark Benthien
ECA Exec. Director
Southern California Earthquake Center



EarthquakeCountry.org & Terremotos.org

- Both feature the *Seven Steps to Earthquake Safety*
- Downloadable documents, videos, & graphics (earthquakecountry.org/graphics)
- News, events, & social media resources



Many ECA resources translated or updated in 2020:
Soon many documents will be in 14 languages!

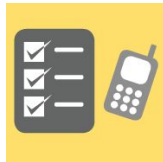
Seven Steps To Earthquake Safety

BEFORE

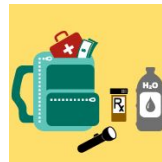
1. Secure Your Space



2. Plan To Be Safe



3. Organize Supplies

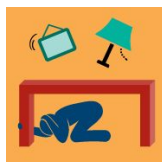


4. Minimize Financial Hardship

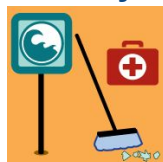


DURING

5. Drop, Cover, and Hold On



6. Improve Safety



AFTER

7. Reconnect and Restore



EarthquakeCountry.org/sevensteps

Terremotos.org/sietepasos

Safer at Home Webinar Series

Step 1 – Secure Your Space:	June 30
Step 2 – Plan to Be Safe:	August 19
Step 3 – Organize Disaster Supplies:	September 2
Step 4 – Minimize Financial Hardship:	September 23
Step 5 – Drop, Cover, and Hold On:	September 30
Step 6 – Improve Safety:	October 28
Step 7 – Reconnect & Restore:	November 17

EarthquakeCountry.org/SaferAtHome

ECA Sector-Based Outreach Committees

- Public Sector
- Businesses
- Accessibility
- Non-Profit & Faith-Based Organizations
- Healthcare
- Higher Education
- PreK-12 Education
- EPIcenters (Museums, parks, libraries, etc.)

Each meets bimonthly; Join us!
EarthquakeCountry.org/committees

ECA Outreach Bureaus (Statewide)

- **Events Bureau**

- Speakers for online/in-person events
- Booths and tables at events
- Request presenter or information table:
EarthquakeCountry.org/events



- **Participation Bureau**

- ShakeOut and Tsunami Week recruitment and communications
- County/City Partners for local engagement



- **Media Bureau**

- Statewide and local coordination
- Media event planning
- Year-round messaging / news releases
- Post-earthquake shared messaging



Great ShakeOut Earthquake Drills

- Schools, organizations, and families practice earthquake safety (Drop, Cover, and Hold On) and other aspects of their emergency plans
- 2019: **67.9 million** people worldwide
21.9 million nationwide
10.8 million California
(record #s in many other states too)
- 2020: About half to two-thirds participation
- 2021 International ShakeOut Day:
October 21
- Learn more and register: ShakeOut.org/california

**Shake
Out**[™]



Why Drop, Cover, and Hold On?

- Strong consensus for many years, based on data for how people are injured, and experience of Urban Search and Rescue firefighters
- Prevents being thrown to the ground
- Reduces injury from falling or flying items... including structural elements and exterior façades (brick, glass, etc.)
- Increases chance of surviving collapse



Classroom in Calexico, CA
April 2010 M7.2



EarthquakeCountry.org/step5

Adapt to Your Situation

- Don't get down if you can't get back up
- Practice with others who assist you
- EarthquakeCountry.org/accessibility

If You Feel Shaking or Get an Alert:



EarthquakeCountry.org/step5

Updated Materials Coming Soon

If You Feel Shaking or Get an Alert:

If Possible

DROP! COVER! HOLD ON!

Using Cane

DROP! COVER! HOLD ON!

Using Walker

Si Siente Un Temblor o Recibe Una Alerta:

Si Es Posible

¡AGÁCHASE! ¡CÚBRASE! ¡SUJÉTENSE!

Si Usa Bastón

¡AGÁCHASE! ¡CÚBRASE! ¡SUJÉTENSE!

Si Usa Andador

¡PRENE! ¡CÚBRASE! ¡SUJÉTENSE!

Si Usa Silla de Ruedas

¡PRENE! ¡CÚBRASE! ¡SUJÉTENSE!

Terremotos.org/paso5

Seven Steps to Earthquake Safety

Follow the Seven Steps to Earthquake Safety to be prepared for an event and reduce harm from the next damaging earthquake. Learn more at EarthquakeCountry.org/prepared.

Prepare

- Secure your space by identifying hazards and securing movable items.
- Plan to be safe by creating your emergency plan and deciding how you will communicate.
- Organize emergency supplies in convenient locations.
- Minimize financial hardship by organizing important documents, strengthening your property, and considering insurance coverage.

Survive

- Drop, Cover, and Hold On when shaking starts.
- Improve safety quickly by assisting helping the injured, or further injuries or damage.
- Reconnect or call for help after shaking stops.

Recover

Check for injuries and damage. Do not use utilities until they are declared safe.

Key Earthquake Safety Accessibility Tips

Shake Out

When You Feel Shaking or Get an Alert, Protect Yourself from Falling Objects

If Possible

Drop where you are, onto your hands and knees. This position protects you from being knocked down by shaking and reduces your chance of being hit by falling or flying objects.

Cover your head and neck with one arm and hand.

- If a sturdy table or desk is nearby, crawl underneath for shelter.
- If no shelter is nearby, cover head to an interior wall.
- Stay on your knees, bend over to protect vital organs.

Hold On until the shaking stops.

- Under shelter: hold on to it with one hand, be ready to move with your shelter if it shifts.
- No shelter: hold on to your head and neck with both arms and hands.

Or, Adapt to Your Situation

If you have difficulty getting onto the ground, or cannot get back up again without help, then follow these recommendations:

Drop to the ground where you are - before the shaking knocks you down.

Cover by protecting your head and neck with your arms, and try to make your body a smaller target for falling or flying objects.

- A shopping cart will provide some protection.
- Taking cover inside clothing racks will provide some protection.
- In an aisle with tall "boxed racks" (like those in warehouse stores), taking cover inside the racks will provide some protection.

Hold On to something sturdy.

DROP! COVER! HOLD ON!

For guidelines for other situations, including when outdoors, at a theater, or when using a wheelchair, visit EarthquakeCountry.org/shake5.

Recommended Earthquake Safety Actions

Shake Out

Federal, State, and local emergency management experts and other official organizations agree that the actions described below will reduce injury and death during earthquakes.

In most situations, if you feel shaking or get an alert, immediately:

Drop where you are, onto your hands and knees. This position protects you from being knocked down and allows you to stay low and crawl to shelter if nearby.

Cover your head and neck with one arm and hand.

- If a sturdy table or desk is nearby, crawl underneath it for shelter.
- If no shelter is nearby, crawl next to an interior wall (away from windows).
- Stay on your knees, bend over to protect vital organs.

Hold On until the shaking stops.

- Under shelter: hold on to it with one hand, be ready to move with your shelter if it shifts.
- No shelter: hold on to your head and neck with both arms and hands.

Or, Adapt to Your Situation

If you have difficulty getting onto the ground, or cannot get back up again without help, then follow these recommendations:

Drop to the ground where you are - before the shaking knocks you down.

Cover by protecting your head and neck with your arms, and try to make your body a smaller target for falling or flying objects.

- A shopping cart will provide some protection.
- Taking cover inside clothing racks will provide some protection.
- In an aisle with tall "boxed racks" (like those in warehouse stores), taking cover inside the racks will provide some protection.

Hold On to something sturdy.

DROP! COVER! HOLD ON!

For guidelines for other situations, including when outdoors, at a theater, or when using a wheelchair, visit EarthquakeCountry.org/shake5.

Emergency Supplies Checklist

Shake Out

It may be easier and cheaper than you think to **organize emergency supplies in convenient locations**. This is not just about "having a kit," it's about having supplies specific to you, such as medications, prescriptions, clothing, shoes, toiletries, and more. This is in addition to the basic supplies everyone should have (water, food, first-aid, flashlight, radio, etc.).

LOCK your shelter carefully and **COVER** your head.

Drop to the ground where you are - before the shaking knocks you down.

Cover by protecting your head and neck with your arms, and try to make your body a smaller target for falling or flying objects.

Hold On to something sturdy.

DROP! COVER! HOLD ON!

For guidelines for other situations, including when outdoors, at a theater, or when using a wheelchair, visit EarthquakeCountry.org/shake5.

Earthquake Safety Video Series



- Separate short (1-8 min) videos:
 - indoors, nearby table/desk
 - indoors, no table/desk
 - theater/stadium
 - near the shore
 - in a car
 - in bed
 - people with mobility disabilities
- View full videos at Youtube.com/greatshakeout
- Download full videos at www.ShakeOut.org/messaging

Materials @ ShakeOut.org/resources

Official Participant

Join Us

in the
World's Largest
Earthquake Drill.

DROP! COVER! HOLD ON!
October 18, 10-10:10 a.m.



Register at www.ShakeOut.org

ShakeOut Great ShakeOut Earthquake Drills

K-12 Schools and Districts

Register Now at ShakeOut.org

DROP! COVER! HOLD ON!



ShakeOut Great ShakeOut Earthquake Drills

Businesses

Register Now at ShakeOut.org

DROP! COVER! HOLD ON!



ShakeOut "Countdown to ShakeOut"

1. Get ready for a great day of fun and learning...
2. ...and a chance to learn about earthquake safety...
3. ...and how to prepare for an earthquake...
4. ...and how to stay safe during an earthquake...
5. ...and how to help others stay safe...
6. ...and how to help others prepare for an earthquake...
7. ...and how to help others stay safe during an earthquake...
8. ...and how to help others prepare for an earthquake...
9. ...and how to help others stay safe during an earthquake...
10. ...and how to help others prepare for an earthquake...

DROP! COVER! HOLD ON!



Get Ready to Shake Out.



www.shakeout.org

ShakeOut Great ShakeOut Earthquake Drills

1. **Drop!** When you hear the alarm, drop to the ground immediately. Don't run. Stay where you are until the alarm stops.

2. **Cover!** Get under a sturdy desk or table. If you are in a room with no desks or tables, crouch in an interior wall corner. If you are outdoors, drop to the ground on all fours.

3. **Hold On!** Stay under your shelter until the alarm stops. Stay away from windows, glass doors, and anything that could fall.

DROP! COVER! HOLD ON!



ShakeOut Drill Manual

How to Prepare for an Earthquake

1. **Drop!** When you hear the alarm, drop to the ground immediately. Don't run. Stay where you are until the alarm stops.

2. **Cover!** Get under a sturdy desk or table. If you are in a room with no desks or tables, crouch in an interior wall corner. If you are outdoors, drop to the ground on all fours.

3. **Hold On!** Stay under your shelter until the alarm stops. Stay away from windows, glass doors, and anything that could fall.

DROP! COVER! HOLD ON!



Protect yourself during an Earthquake!

DROP! COVER! HOLD ON!



Register at www.ShakeOut.org

ShakeOut. Don't FreakOut.

Register Now at www.shakeout.org



ShakeOut Shop

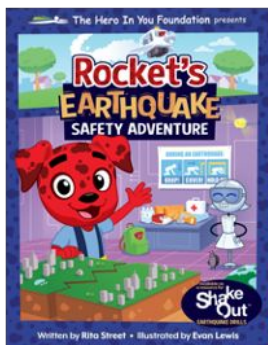


RocketRules.org: New materials for children age 4-9

The Hero In You Foundation presents

Rocket's EARTHQUAKE SAFETY ADVENTURE


Written by Rita Street • Illustrated by Evan Lewis



The Hero In You Foundation presents

Rocket EN UNA AVENTURA DE SEGURIDAD DURANTE UN TERREMOTO

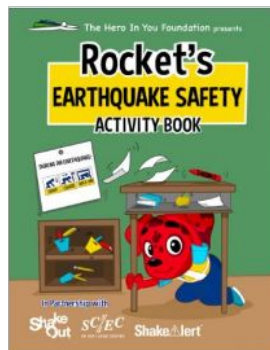
Escrito por Rita Street • Ilustraciones de Evan Lewis




The Hero In You Foundation presents

Rocket's EARTHQUAKE SAFETY ACTIVITY BOOK

ShakeOut S/EC ShakeAlert



LET'S GO ON A WAZZED JURY!

Many big things in your house can fall and hurt you. Move them to a lower place or secure them so they don't fall.

Put an "X" on the floor. Fill. Color this page.

1. Grab all the things that can fall and put them in a safe place.

2. Grab all the things that can fall and put them in a safe place.

3. Grab all the things that can fall and put them in a safe place.

4. Grab all the things that can fall and put them in a safe place.

5. Grab all the things that can fall and put them in a safe place.

6. Grab all the things that can fall and put them in a safe place.

7. Grab all the things that can fall and put them in a safe place.

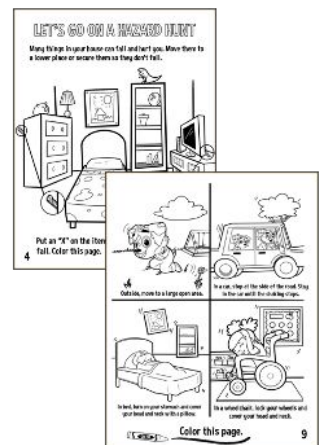
8. Grab all the things that can fall and put them in a safe place.

9. Grab all the things that can fall and put them in a safe place.

10. Grab all the things that can fall and put them in a safe place.

Color this page.

9



English and Spanish Story Books

English, Spanish, and
7 other Languages

RocketRules.org/earthquake

Earthquake Drills in 2021

- Earthquakes likely will not happen at on a Thursday morning.

Choosing alternative dates/times for your ShakeOut drill each year is always a good practice!

- Earthquakes likely will not happen when everyone is at work or school

ShakeOut in Place...
no matter where people are
(work, home, school,, traveling...)



ShakeOut and COVID-19
ShakeOut.org/covid19

- Will your drill be in-person, remote, or both?
- Choose your own **date** (or **multiple dates**).
- Follow local COVID-19 **health and safety guidelines**.

Join Us October 21 ShakeOut.org

Drill together online!

Practiquen juntos en línea!

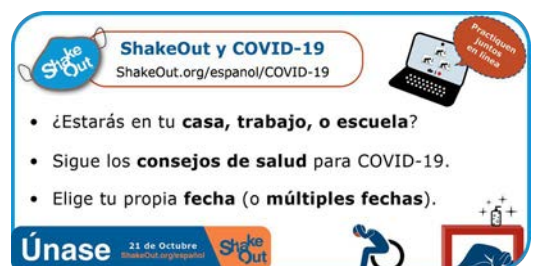
ShakeOut.org/COVID-19

Earthquake Drills in 2021

- Consider **supporting your ShakeOut activity remotely through video conferencing** - be sure to take recordings or screenshots, have an after-action dialogue, or even a survey to participants!

During classes, during staff meetings, etc.

- **If in-person:** Provide ample space between people at all stages. Wear masks and other personal protective equipment in addition to regular hand-washing.



ShakeOut y COVID-19
ShakeOut.org/espanol/COVID-19

- ¿Estarás en tu **casa, trabajo, o escuela**?
- Sigue los **consejos de salud** para COVID-19.
- Elige tu propia **fecha** (o **múltiples fechas**).

Únase 21 de Octubre ShakeOut.org/espanol

Practiquen juntos en línea!

ShakeOut.org/COVID-19

The screenshot shows the ShakeOut.org website with a navigation bar at the top. The main content area is titled "SHAKEOUT COVID-19 RESOURCES" and features a "NEW! Powerpoints for leading ShakeOut Drills (Online or In-Person) - see below" section. Below this, there is a detailed article about participating in drills during the COVID-19 pandemic, including considerations for remote vs. in-person drills and a list of questions to consider. A "Join Us" button is visible, along with social media links for Facebook and Instagram. At the bottom, there is a "Drill Guidance for Grades K-4" link.

The infographic is titled "ShakeOut and COVID-19" and provides key messages and considerations for participating in drills during the pandemic. It includes a "Purposes" section, a "Considerations" section, and a "What Else?" section. A "Join Us" button is also present.

Purposes: Throughout the COVID-19 pandemic, we have had to make many adaptations for home, work, and school - all while learning a lot. As you plan for ShakeOut this year, consider: When was the last time you checked on your disaster supplies? Have you "Secured Your Space" to prevent damage and injury? What changes are there to your emergency plans and contacts? ShakeOut organizers are here to help you (and everyone, everywhere) successfully participate again this year: ShakeOut.org/covid19.

Considerations:

- **Where will your drill be? In-person, remote, or both?** Consider video conferencing and using drill leader presentations at ShakeOut.org/covid19.
- **Choose your own date (or even multiple dates).** Most may still participate on International ShakeOut Day (10/21 this year).
- **Follow local health and safety guidelines.**

...What Else?

- Follow the **Seven Steps to Earthquake Safety** to protect your family, workplace, property, and way of life ahead of the next big earthquake: bit.ly/7stepsECA.
- For tools and tips to lead and support ShakeOut online or in-person, visit ShakeOut.org/covid19.
- Prepare for **other hazards** near you, such as extreme weather, fires, floods, tsunamis, landslides, and volcanic eruptions.

Join Us October 21 ShakeOut.org

© 2021 - info@shakeout.org - [@ShakeOut](https://twitter.com/ShakeOut) (Twitter)

ShakeOut Drill Leader Presentations

- To support remote working / distance learning, presentations were created for drill leaders with:
 - Guidance for leading online drills
 - Slides to explain DCHO and why
 - Slides with ShakeOut "drill narration" with and without sound effects
 - Questions for before and after
- Presentations made for 4 categories:
 - Grades K-4
 - Grades 5-12
 - Higher Education
 - Organizations
 - Download: ShakeOut.org/COVID19
- **Coming Soon:**
 - Updated guidance
 - More categories (faith-based, healthcare, community groups, EOC drills, etc.)
 - Possibly more languages

This thumbnail shows the title "Drill Leader Instructions: Content and Resources" and lists the content of the presentation, including drill leader instructions, pre-drill discussion, hazard information, introduction, overview of DCHO, and drill narration options. It also mentions that the total time for the activity will depend on the content chosen.

This thumbnail features the title "Time to ShakeOut!" and a graphic with the words "DROP! COVER! HOLD ON!" in large, bold letters. Below the graphic, it says "ShakeOut 60-second Drill Narration (with Sound Effects)" and includes a play button icon.

This thumbnail is titled "If a Table or Desk is Nearby" and shows three illustrations: "DROP!" (a person dropping to the ground), "COVER!" (a person covering their head and neck), and "HOLD ON!" (a person holding onto a table or desk). Each illustration is accompanied by a brief instruction.

This thumbnail is titled "Earthquake Experience" and lists three discussion questions for drill leaders to ask participants: "If you have experienced an earthquake, what was it like?", "What do we normally do at work for earthquake drills?", and "Why is practicing for earthquakes and other emergencies important?".

Inclusive Shakeout Drill Considerations



This Photo by Unknown Author is licensed under CC BY-NC-ND

- Build COVID-19 safety protocols into drills
- Ensure individuals in high-risk groups can participate safely
- Use online conference platforms for remote participation
 - ◆ Ensure close captioning is available for Deaf/Hard of Hearing participants
 - ◆ Ensure shared files/materials are speech-reader friendly
 - ◆ Ensure files/materials are translated for non-English speaking participants

ShakeOut Accessibility

Before the Drill:

- Ask "How can we assist you?"
- Determine best means to communicate with and/or assist participating community members with access & functional needs

*Nothing about us
without us*



HayWired Scenario Volume 3 Rollout

- 11:00 AM – 4:00 PM on 10/21/21
- Agenda:
 - Volume 3 Panel: Resilience through Connections
 - Summaries and responses to chapter findings
 - Lunchtime Breakouts
 - Hayward fault earthquake effects and policy research
 - Diversifying communication of the HayWired Scenario
 - Exercise Toolkit Launch
 - Scenario Applications
 - *Seeking speaker recommendations for this segment*
 - Social Breakout Groups

Connect with ShakeOut and ECA

- ShakeOut.org
- info@shakeout.org
- [Twitter.com/ShakeOut](https://twitter.com/ShakeOut)



#ShakeOut

- EarthquakeCountry.org
- Terremotos.org
- info@earthquakecountry.org
- [Twitter.com/eca](https://twitter.com/eca)
- [Facebook.com/EarthquakeCountryAlliance](https://facebook.com/EarthquakeCountryAlliance)



Mitigation Moment: Resources, information, & updates

Anne Rosinski
Earthquake Program Manager
FEMA Region IX

FEMA Region IX Earthquake Program

Earthquake Insurance and Financial Resilience Infographic *NEW*

- FEMA Strategic Goal 1: Build a culture of preparedness – Objective 1.2 Close the insurance gap
- Collaboration with Jumpstart, United Policy Holders, FEMA Region IX, Community Engagement and Risk Communication (CERC) support
- Phased project: a template that can be adopted to other FEMA regions and earthquake settings
- First deliverable: 1-page information sheet and call to action
- Future actions may include interactive web site, mobile app, other
- [FEMA.gov/emergency-managers/risk-management/building-science/earthquakes](https://www.fema.gov/emergency-managers/risk-management/building-science/earthquakes)



FEMA Region IX Earthquake Program

Hazard Mitigation Assistance (HMA) Notices of Funding Opportunities (NOFOs) for these grant programs:

- 1) **Flood Mitigation Assistance (FMA)**
- 2) **New Building Resilient Infrastructure and Communities (BRIC)**

Open on Sept. 30, 2021, and close at 12p.m. PT on Jan. 28, 2022.

Fiscal Year 2021 **Notices of Funding Opportunities** for Hazard Mitigation Assistance Grants:

[FEMA.gov/grants/mitigation/fy2021-nofo](https://www.fema.gov/grants/mitigation/fy2021-nofo)

2021 Building Resilient Infrastructure and Communities and Flood Mitigation Assistance **Webinar Series:**

[FEMA.gov/grants/mitigation/2021-building-resilient-infrastructure-and-communities-and-flood-mitigation-assistance-programs](https://www.fema.gov/grants/mitigation/2021-building-resilient-infrastructure-and-communities-and-flood-mitigation-assistance-programs)



Contact Information

Anne Rosinski
Earthquake Program Manager,
FEMA Region IX
Anne.Rosinski@fema.dhs.gov



FEMA

Updates from CEA

Annde Ewertson
CEA Mitigation Director
California Earthquake Authority

Get
Prepared.

ANNDE EWERTSEN
MITIGATION DIRECTOR

August 25, 2021



SEISMIC VULNERABILITY

Older homes have known vulnerabilities to earthquake damage.

Seismic Vulnerabilities



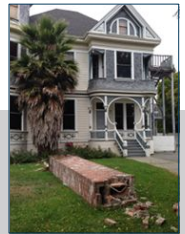
Cripple Wall



Living-space-over garage



Hillside House



Chimney

RETROFIT

Retrofitting does not "earthquake proof" a house. It can make damage less likely, and the house is more likely to remain habitable.

Earthquake Brace + Bolt



Earthquake Brace + Bolt Program:

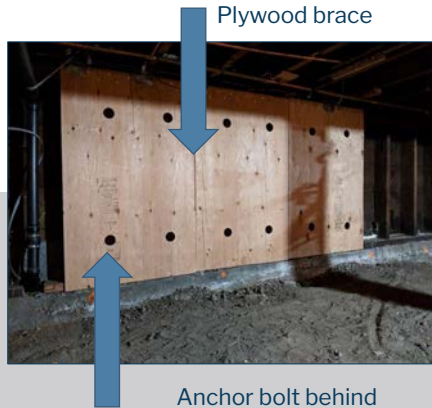
- Retrofits crawlspace with plywood bracing and new bolting
- Provides up to \$3,000 grant
- Currently requires owner-occupied
- In select ZIP Codes with high seismic hazard
- Has collected important data:
 - Retrofit averages \$5,200 in CA
 - More expensive in Northern CA
 - Number of retrofitted houses in a city

Earthquake Brace + Bolt

Cripple Wall Requires Framing Clips, Foundation Plates, and Plywood



Crawlspace **Before**
Retrofit



Crawlspace **After** Retrofit

Get Prepared - August 25, 2021

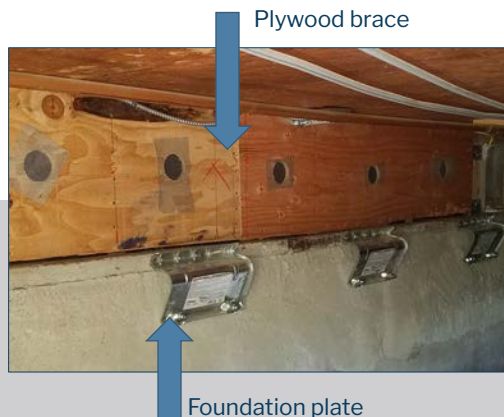
89

Earthquake Brace + Bolt

Short Cripple Wall Requires Framing Clips, Foundation Plates, and Plywood



Crawlspace **Before**
Retrofit



Crawlspace **After** Retrofit

Get Prepared - August 25, 2021

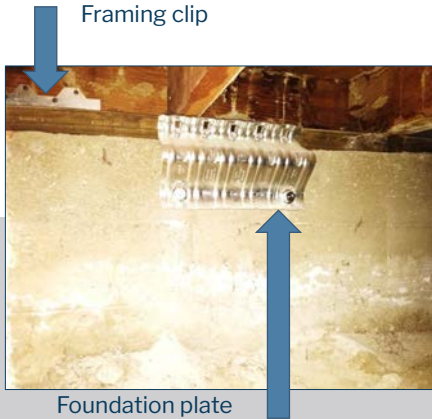
90

Earthquake Brace + Bolt

Stem Wall (No Cripple Wall) Requires Framing Clips and Foundation Plates



Crawlspace **Before** Retrofit



Crawlspace **After** Retrofit

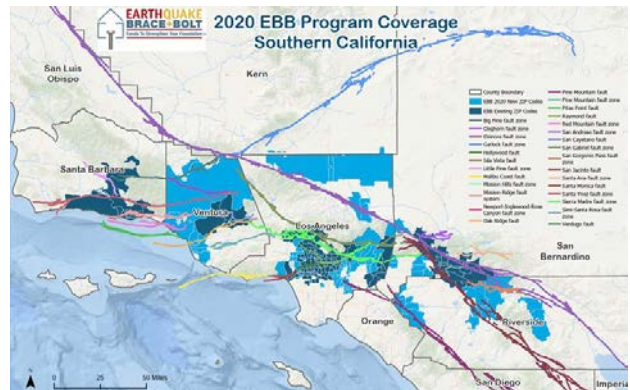
We are proud to announce that in 2021 we will be introducing new grants specifically aimed at underserved neighborhoods.

These much-needed supplementary grants, will in most cases, be able to provide 100% OF THE FUNDS needed to help strengthen houses in disadvantaged communities, and help neighborhoods be more resilient after an earthquake.



Supplemental Grant Eligibility

- Your house qualifies for an EBB retrofit
- You are a homeowner
- Your household income is \$69,680 or less
- Your home is built before 1980
- Live in program ZIP Codes



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CEA Mitigation

[StrengthenMyHouse.com](https://www.strengthenmyhouse.com)

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CALIFORNIA RESIDENTIAL MITIGATION PROGRAM


HOME | PRESS | SPANISH | CHINESE

STRENGTHEN YOUR HOUSE | RESOURCES | HOW TO PAY FOR A RETROFIT | ABOUT US

STRENGTHEN YOUR HOUSE

Get Prepared. Worry Less.


Earthquakes in California are inevitable, but the damage they cause is preventable. While older homes in California are charming, many are also vulnerable to shake damage. Find your home type or hazard below and learn about its vulnerabilities, and what you can do to strengthen your property against earthquake damage. While seismic retrofitting a house does not guarantee against damage, it can help to improve its performance in an earthquake by making it stronger and more resilient. This can help make your house safer for you and your family.



Raised Foundation

Older houses with steps up to the first floor can shift off their foundations from shaking. They would be strengthened by bolting or bracing and bolting the house to its foundation.

[LEARN MORE](#)



Living Space Over Garage

Houses with one or more floors of living space over an attached garage are vulnerable to shaking. Retrofitting the garage space can make it more resistant to earthquakes.


[LEARN MORE](#)



Post & Pier

A house without a continuous perimeter foundation can shift or collapse in an earthquake. Adding a foundation that is braced and bolted will strengthen the house.

[LEARN MORE](#)



Chimneys & Fireplaces

Older chimneys can crack and fall away from the house during or after an earthquake. And brick, stone, or decorative fireplace components can be a hazard, inside.

[LEARN MORE](#)

[Next Steps to Strengthen Your House](#)

StrengthenMyHouse.com

Federal Income Tax Parity for State Disaster Mitigation Grants

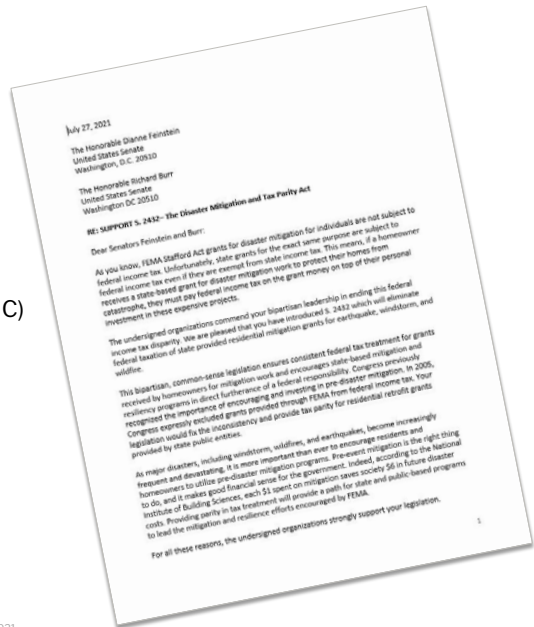
U.S. Senators Alex Padilla (D-Calif.), Dianne Feinstein (D-Calif.), Richard Burr (R-N.C.), and Thom Tillis (R-N.C.), along with Representative Mike Thompson (D-Calif.), introduced the bipartisan, bicameral [**Disaster Mitigation and Tax Parity Act**](#), a bill that would make grants that homeowners receive for making natural disaster mitigation improvements to their homes exempt from federal taxes. The house bill has 12 bipartisan cosponsors from 4 states.



Federal Income Tax Parity for State Disaster Mitigation Grants

Supporting Organizations:

- American Property Casualty Insurance Association (APCIA)
- BuildStrong
- California Earthquake Authority (CEA)
- Earthquake Engineering Research Institute (EERI)
- Enterprise Community Partners, Inc.
- Federal Alliance for Safe Homes, Inc. (FLASH)
- International Code Council (ICC)
- Insurance Institute for Business & Home Safety (IBHS)
- National Association of Mutual Insurance Companies (NAMIC)
- R Street
- Reinsurance Association of American (RAA)
- Structural Engineers Association of CA
- United Policyholders
- U.S. Resiliency Council (USRC)



Get Prepared - August 25, 2021

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Thank You.

StrengthenMyHouse.com



Questions?

info@EarthquakeBraceBolt.com

Get Prepared - April 7, 2021

Open Discussion & Networking

- What have you heard today that inspires new **ideas, partnerships, or ways of creating greater inclusivity** in your community?
- How might you & your organization improve/encourage earthquake safety & ShakeOut participation during National Preparedness Month (September)
- Did any of the mini awards inspire ideas for what you might propose?
- Based on lessons learned in 2020, how might you adapt your ShakeOut drill to accommodate continued COVID-19 considerations?
- What other ideas have been inspired by today's presentations?

Please take our brief survey about today's workshop:

[SurveyMonkey.com/r/J76PXYP](https://www.surveymonkey.com/r/J76PXYP)

Short Announcements

Please take our brief survey about today's workshop:

[SurveyMonkey.com/r/J76PXYP](https://www.surveymonkey.com/r/J76PXYP)

- [EarthquakeCountry.org/bayarea](https://www.earthquakecountry.org/bayarea)
- bayarea@earthquakecountry.org

- [EarthquakeCountry.org/join](https://www.earthquakecountry.org/join)
- info@earthquakecountry.org



- [Twitter.com/eca](https://twitter.com/eca)
- [facebook.com/EarthquakeCountryAlliance](https://www.facebook.com/EarthquakeCountryAlliance)

Please take our brief survey about today's workshop:

[SurveyMonkey.com/r/J76PXYP](https://www.surveymonkey.com/r/J76PXYP)