

Shaking Things Up: Dennis Mileti's Influence

Mark Benthien

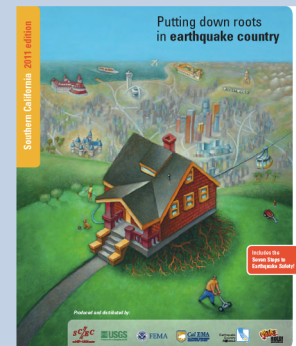
Southern California Earthquake Center
Earthquake Country Alliance
Great ShakeOut Earthquake Drills



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VERY early influence!


- Dr. Mileti's work on public risk communication of earthquake warnings and messaging led to the the publication of *Putting Down Roots in Earthquake Country* (www.EarthquakeCountry.org/booklets) by Dr. Lucy Jones (published by SCEC in 1995 as a response to the Northridge earthquake)
- When I first started at SCEC in March 1996, my days were mostly spent shipping boxes of the booklet!
- We first met in October 1996, when he spoke at a SCEC-organized conference. He was both characteristically charismatic and confrontational, urging the attendees to take real action.



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Southern California Earthquake Center

- 1000+ scientists at 75+ institutions worldwide (SCEC.org)
- Coordinates earthquake system science with primary funding from the National Science Foundation and U.S. Geological Survey.
- I've led SCEC's Communication, Education, and Outreach Program since 2001, which spans two focus areas:
 - Public Education & Preparedness
 - Experiential Learning & Career Advancement
- As a member of the SCEC Advisory Council Dennis, guided our E&O approach and was a great champion both internally and externally.



Public Education & Preparedness

Global Earthquake & Tsunami Campaigns

Science, Risk, and Crisis Communication

Earthquake Country Alliance

Quake Heroes Documentary

Experiential Learning & Career Advancement

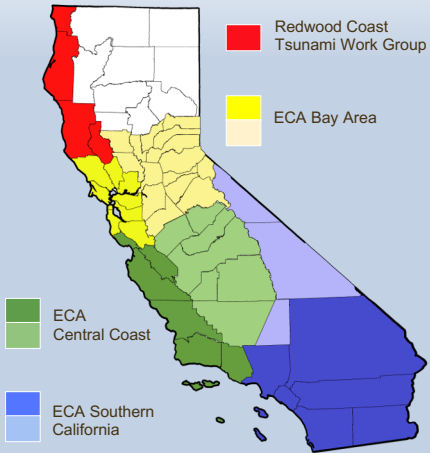
Undergraduate Internships Program


Transitions Program


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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 NEHRP funding to SCEC for ECA activities







Join: EarthquakeCountry.org/alliance

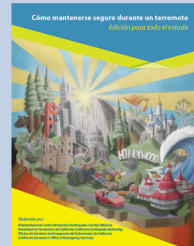
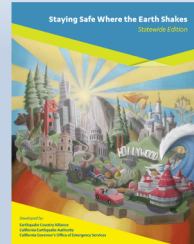
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ECA Statewide Activities

Develop Messaging and Resources:
EarthquakeCountry.org
EarthquakeCountry.org/resources
Terremotos.org

Support Tsunami Preparedness Week:
TsunamiZone.org/california

Created and Coordinate
 The Great California ShakeOut:
ShakeOut.org/california



**Oct. 21
in 2021!**

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Great ShakeOut Earthquake Drills

- In 2007, the USGS began development of the *ShakeOut Earthquake Scenario*; Dr. Mileti and James Goltz wrote the emergency response and communications chapter.
- This became the basis of a major emergency management exercise planned for late 2008.
- ECA and key partners asked “how do we involve everyone in the exercise?” which led to the idea of a regional earthquake drill - the **Great Southern California ShakeOut!**
- The key activity for everyone to practice and understand: **Drop, Cover and Hold On!**



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Social Science Research Basis for ShakeOut

People Get Motivated to Prepare When:



- They see and hear consistent information about what to do frequently, in many forms, and from many sources
- They see others like themselves getting prepared
- They talk about preparedness with people they know
- They learn potential consequences, and how to avoid them

Based on research results of Mileti, D., Wood, M., Bourque, L., and others

ShakeOut put these findings into practice

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Great ShakeOut Earthquake Drills

- Schools, organizations, and families practice earthquake safety and other aspects of their emergency plans
- 2019: **67.5 million** people worldwide
21.9 million nationwide
10.8 million California
(record #s in many other states too)
- 2020: Approximately 50-70% participation (COVID-19)
- 2021 International ShakeOut Day:
October 21 (but can drill anyday)
- Learn more and register: [ShakeOut.org](https://www.ShakeOut.org)



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ShakeOut Goals

Encourage people worldwide to practice earthquake safety



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State, Regional, and National Customized Websites



ShakeOut websites are now online in English, Spanish, French, Italian, and Japanese.

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Example Statistics and Participant List

2014 participation by ShakeOut Region	All Regions	Category	Participants	Del Norte
Alaska (Mar. 27)	1,965,831	Total:	California	10,410,401
Alaska (Oct. 16)	80,536	Individuals/Families		11,941
American Samoa	5,102	Childcare and Pre-Schools		50,111
Arizona	123,595	K-12 Schools and Districts		6,366,514
British Columbia	743,126	Colleges and Universities		1,954,438
California	10,410,401	Local Government		461,805
Central U.S. (AL,AR,IL,IN,KS,KY,MO,MS,OH,OK,TN)	2,761,667	State Government		149,993
CNMI	12,508	Federal Government (Including Military)		221,009
Colorado	35,971	Tribes/Rancherias		3,402
Guam	78,281	Businesses		62,512
Hawaii	30,007	Hotels and Other Lodgings		2,337
Idaho	75,220	Healthcare		185,402
Japan	4,453,244	Senior Facilities/Communities		17,445
Montana	157,189	Disability/AFN Organizations		9,727
Nevada	571,494	Non-Profit Organizations		82,167
New Mexico	106,838	Neighborhood Groups		30,737
NorthEast U.S. (CT,MA,ME,NH,NJ,NY,PA,RI,VT)	505,590	Preparedness Organizations		13,498
Oregon	398,815	Faith-based Organizations		166,366
Puerto Rico	595,954	Museums, Libraries, Parks, etc.		8,407
Quebec	152,808	Volunteer/Service Clubs		258
SouthEast U.S. (DC,DE,FL,GA,MD,NC,SC,VA,WV)	2,192,111	Youth Organizations		1,993
Southern Italy	12,285	Animal Shelter/Service Providers		273
U.S. Virgin Islands	7,249	Agriculture/Livestock		1,340
Utah	835,729	Volunteer Radio Groups		931
Washington State	1,089,820	Science/Engineering Organizations		5,096
Wyoming	10,689	Media Organizations		13,671
Yukon	9,770	Other		24,598
Other States and Countries	1,105,606			

Businesses
Del Norte
Mary Dorman - State Farm Agent, Crescent City Walmart 1910, Crescent City
El Dorado
AAA
AAA Northern California, Nevada and Utah, Folsom Branch, Folsom
Fresno
ADT Security Services, LLC, Fresno SSO, Fresno DaVita Healthcare Davita Sanger, Sanger F & F Contracting, Inc./ Etke Trucking/Golden Eagle Charter, Inc., Fresno HD Supply HD Supply White Cap, Fresno Branch, Fresno Humanscale, Fresno facility, Fresno Kohl's Department Stores Kohl's Department Store, Fresno Kohl's Department Store, Clovis Landscape Contractors Insurance Services, Inc., Fresno Mascovich Fashion Fair Mall, Fresno Rabobank, Fresno
Humboldt
Cafe Nooner, Cafe Nooner Too, Eureka Cat-Ore Life Flight, Humboldt Base, Eureka GHD, Inc., Eureka Kohl's Department Stores Kohl's Department Store, Eureka Pacific Gas and Electric Company Pacific Gas and Electric Company, iSFSI & Humboldt Bay Gener PMFV Productions, Eureka Stewart Telecommunications, Eureka
Imperial
Kohl's Department Stores Kohl's Department Store, El Centro United States Gypsum, Plaster City Plant, El Centro
Kern
AEG Rabobank Arena, Theater & Convention Center, Bakersfield Allstate, Sales, Ridgecrest DaVita Healthcare Davita-Bakersfield Dialysis Center, Bakersfield Environmental Resources Management Environmental Resources Management Bakersfield, Bakersfield ERM-Bakersfield, Bakersfield, Bakersfield FedEx Ground, Bakersfield Golden Empire Transit, Bakersfield HD Supply Construction & Industrial White Cap, Bakersfield Branch

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ShakeOut Emails (Messaging Opportunities)

Each third Thursday of October is International ShakeOut Day - this year it's October 17! From now until then, help inspire others to participate by renewing your registration and encouraging others to register!

How will you make your #ShakeOut drill even bigger and better? While minimum participation is a one-minute earthquake drill, you can do so much more (consider insurance or retrofitting, make a plan, and/or organize disaster supplies. EarthquakeCountry.org/sevinsteps).

Renew Your Registration

Join Us October 17, 2019
in the World's Largest Earthquake Drill.
www.ShakeOut.org

One-Minute Preparedness Tip!

Talk to your agent about earthquake insurance. You may be surprised at how little it costs to have the right amount of coverage for you.

For more information, visit EarthquakeCountry.org/step4.

ShakeOut graphics at ShakeOut.org/resources/BannerAd, and share these one-minute preparedness tips with your friends, family, and co-workers! Messaging resources are always available at ShakeOut.org/messaging.

All The Essentials For Your #ShakeOut Drill Next Week on 10/18!

How many more people will you inspire to participate in ShakeOut? At the least, it's just a one-minute Drop, Cover, and Hold On drill. More than 15.5 million people around the world have been registered to participate in ShakeOut this year, with 10.3 million holding their drills next Thursday, October 18. Congratulations on being one of them! You can view who else in your community is participating at ShakeOut.org/whosparticipating, organized your county or category.

Get Ready to Shake Out. October 18, 2018
www.ShakeOut.org

Renew for the 2018 ShakeOut!

[Who Is Participating](#) [How to Participate](#)
[Resources](#) [News and Events](#)

One-Minute Preparedness Tip!

ICE means "In Case of Emergency!"

Take a minute to make sure your local and out-of-state contacts on your phone have "ICE" and "Emergency" text to their text name and/or note field.

See and share EarthquakeCountry.org/step2 for ways you can enhance your communication plan.

Join Us

A Few, Simple Steps Toward Peace of Mind

Dear <first name>..

International ShakeOut Day is October 18, but you can also take action right now to prepare to survive and recover! Start with the Seven Steps to Earthquake Safety, share the drill manuals and other guides on the ShakeOut Resources page, and participate in the ShakeOut conversation on social media with #ShakeOut.

We're all in this together - what we do now determines how well we bounce back from the next significant earthquake!

Register for the 2018 ShakeOut!

[How to Participate](#) [Resources](#)
[News and Events](#) [Who is Participating](#)

Shake Out. Don't Freak Out. October 18, 2018
www.ShakeOut.org

Promote ShakeOut to Your Community

Whether you're a public information officer, member of the media, or a general ShakeOut enthusiast, the messaging resources at ShakeOut.org/messaging are the best ways to help promote ShakeOut to your community and help educate about earthquake preparedness. Graphics, animations, videos, guides, and other media can be downloaded and adapted as you need, some of which are highlighted below.

How Well Did Your #ShakeOut Drill Go?

More than 23.1 million people around the world participated in ShakeOut on October 18, thank you for being one of them. But don't stop there - there are many (and simple) steps you can take to ensure to survive and recover, including the Seven Steps to Earthquake Safety. EarthquakeCountry.org/sevinsteps. The Seven Steps were organized by experts in earthquake science, preparedness, and mitigation as a step-by-step guide for staying safe before, during, and after an earthquake.

Be sure to also print out your ShakeOut Certificate of Participation, available on your [profile dashboard](#):

Get Your ShakeOut Certificate!

Instructions to retrieve your ShakeOut Certificate of Participation:

1. Log in to your account at ShakeOut.org/login (select your ShakeOut region before entering your email and password)
2. Look under the dark orange, rectangular "ShakeOut" or "Home" button on your profile dashboard
3. Pick one of the two options available: a) to handwrite your name b) to type your name.

If you have multiple locations registered in one state, you can see the same certificate for each. If your locations span two or more ShakeOut regions, please login to your profile for each region.

One-Minute Preparedness Tip!

For your home kit, you need at least 14 gallons of water: 1 gallon per person, per day, for up to 2 weeks or 14 gallons for one person.

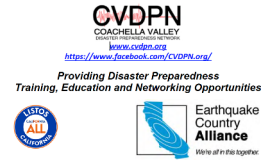
Take a minute to add "emergency water" to your grocery list. It's your most important resource in an emergency.

See and share EarthquakeCountry.org/step3 for ways you can organize your kit.

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Coachella Valley Webinar

- Dennis retired to Rancho Mirage, where he soon became active in the City's Emergency Management Commission.
- We worked on several projects including a video overview of our *Seven Steps to Earthquake Safety*, and public presentations.
- In January 2021 we were planning for him to present a webinar with the **Coachella Valley Disaster Preparedness Network**. With his passing, they asked me to present his talk (which I had helped with).



CVDPN and ECA are co-hosting this special program:



**Coachella Valley
"Quake Risk"
Webinar**



A collaborative tribute to Dr. Dennis Mileti to honor his life-long mission of earthquake preparedness. Join Mark Benthien, ECA Executive Director; a colleague and close personal friend of Dr. Mileti, as he presents valuable earthquake preparedness information (developed by Dr. Mileti), specific to residents of the Coachella Valley.

REGISTER NOW!

Program Date: **March 31st 2021 – 10:00AM PST**

Register: **Here**

Dr. Dennis Mileti, former director of the Natural Hazards Center and long-time resident of Rancho Mirage, passed away on January 30, 2021.

*-Rest in Peace-
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Connect with Me/ECA/ShakeOut

- www.SCEC.org
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- EarthquakeCountry.org
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- ShakeOut.org
info@shakeout.org



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