Massive rehearsal planned for mega-quake

By TERRENCE PETTY Associated Press

PORTLAND — Imagine a devastating earthquake and tsunami have cut off Pacific Northwest coastal communities. Phone and internet service have collapsed. Ham radio operators living on the stricken coast fire up their radios, contact emergency managers and report on the magnitude of the disaster so that no time is wasted in saving lives.

This is the kind of scenario that will be rehearsed this week in a massive earthquake and tsunami readiness drill that has been developed by the U.S. government, the military, and state and local emergency managers over the past few years to test their readiness for what - when it strikes — will likely be the nation's worst natural calamity.

The June 7-10 exercise is called Cascadia Rising. It is named after the Cascadia Subduction Zone — a 600-mile-long fault just off the coast that runs from Northern California to British Columbia.

"This is the largest exercise ever for a Cascadia break," said Lt. Col. Clayton Braun of the Washington State National Guard. Braun has been a key planner of the doomsday drill, which is being overseen by the Federal Emergency Management Agency.

Federal officials say about 20,000 people will be involved in the disaster drill, representing various federal agencies, the U.S. military, state and local emergency response managers across the Pacific Northwest, Native American tribes and emergency management



Washington Air National Guard soldiers from Fairchild Air Force Base in Spokane, Wash., work to assemble temporary living structures at Joint Base Lewis-McChord in Washington.

officials in British Columbia.

One main goal of the exercise is to test how well they will work together to minimize loss of life and damages when a mega-quake rips along the Cascadia Subduction Zone and unleashes a killer tsunami.

Awareness of the seismic threat looming just off the Pacific Northwest dates back to the 1980s, when researchers concluded that coastal lands long ago had been inundated by a tsunami. Research also indicated that a tsunami that was documented in Japan in January 1700 originated from the Cascadia Subduction Zone, also known as the

Research suggests that the CSZ on average produces magnitude 9.0 quakes every 500 years, but big quakes have been separated by as few as 200 years and as many as 1,000. So it is impossible to predict when the next monster quake occurs. However, tectonic stresses have been accumulating in the CSZ for more than 300 years and seismologists say it could rupture at

More than 8 million people live in the area that is vulnerable to the Cascadia Subduction Zone. It contains the most heavily populated areas of the Pacific Northwest, including Seattle and Portland, as well as Interstate 5, one of the nation's busiest roads.

Coastal towns are especially at risk. Studies have forecast that while 1,100 people could die from a 9.0 magnitude quake, 13,500 could perish from the tsunami that would slam into the coast within 15 to 30 minutes after the shaking begins.

A scenario document written in preparation for Cascadia Rising exercise states "the scale of fatalities

across the coast may overwhelm the resources of local governments." Whole towns along the coast may disappear. Hospitals could either collapse or be too severely damaged to handle casualties.

All across the region between the Pacific and the Cascade Range, bridges and roads could be destroyed, fuel supplies and communications disrupted, and buildings and crucial infrastructure may sink into soil that's been liquefied by the intense shaking.

The region has taken steps over the last few years to better prepare for the looming calamity. Schools are being moved out of tsunami inundation zones. Money is being allocated for seismic retrofits of crucial structures. Tsunami evacuation routes to high ground have been identified.

Cascadia Rising is an important part of the planning that has picked up pace over the past few years.

Some of the exercise will put boots on the ground. For example, Washington State National Guardsmen will conduct a landing on Vashon Island to rehearse delivery of supplies with landing craft. About 2,300 National Guard soldiers are among the 6,000 or so exercise participants in Washington state.

Another major drill rehearses how to get the Port of Tacoma back into operation after it has been devastated by a quake, using a U.S. Army Reserve pier that consists of a logistics support vessel, a barge derrick crane and a large tug.

In Oregon, about 580 National Guard soldiers are among some 1,400 Cascadia Rising participants from across the state. Specialty

teams will practice their roles for the disaster that will come. This includes pulling people out of a pile of rubble that simulates a collapsed building and triaging them for medical care.

Much of Cascadia Rising will entail civilian agencies and the military coordinating in what will be extremely difficult conditions. Participants in the exercise will contact emergency management offices with reports of specific needs during the simulated disaster. It will be up to agencies to work together to come up with solutions.

Amateur radio operators are also participating in Cascadia Rising. If internet and phone service are severed, ham operators have the ability to act as the eyes, ears and messengers for emergency officials scrambling to figure out what they need to do to save lives and prevent more damage.

The region's ham radio operators are even able to establish email service for emergency management officials, using amateur radio frequencies to bridge the gaps.

We can leapfrog over the outage, to where there is still internet activity," said Bruce Bjerke, Oregon section coordinator for Amateur Radio Emergency Services, a national non-governmental organi-

Regional and local emergency managers are welcoming the opportunity to rehearse a Cascadia calamity.

"The Cascadia is relatively new to us," said Tiffany Brown, emergency manager for Clatsop County, the northernmost county on the Oregon coast. "We're behind in terms of getting ready for it."

Gross receipts tax certified for ballot and other essentials," said

By PARIS ACHEN Capital Bureau

SALEM — The Secretary of State's Office early Monday certified a corporate sales tax initiative to be placed on the November general election ballot.

"This measure will be a positive game-changer for Oregon's critical services," said Gary Cobb, one of three chief petitioners for Initiative Petition 28, the name of the tax measure. "Our kids will graduate from high school ready to succeed, Oregon kids and families will have access to affordable health care, and

seniors will be able to retire with dignity. This is great news for all Oregonians.

The milestone expected to trigger a bitter multi-million dollar battle between supporters of the union-backed measures and opponents from the business community.

"The

nonpartisan Legislative Revenue Office confirmed that most of this tax would be passed on to Oregon consumers through higher prices for nearly everything they buy with no exemptions for food, medicines, clothing, insurance, electricity, gas Rebecca Tweed of Defeat The Tax On Oregon Sales. "Our coalition will run a robust campaign to inform Oregonians about how harmful this measure would be for Oregon families and how it will make Oregon businesses less competitive."

More than 6,000 volunteers and paid staff with A Better Oregon campaign submitted 121,704 signatures in support of the measure. The Secretary of State's Office verified and accepted 95,272 accepted of those.

Often referred to as a gross receipts tax, the 2.5 percent levy would apply to transactions of certain corporations with annual sales exceeding \$25 million. The tax would affect less than 3 percent of Oregon's 30,000 corporations but would apply to about 75 percent of Oregon sales, according to the Legislative Revenue Office.

An analysis by the revenue office last week showed that the tax would generate about \$3 billion in new revenue each year, stabilizing the state's budget. The study also found the tax could trickle down to consumers and smaller businesses in the form of higher prices.

State officials lift moratorium on glass company over metals

PORTLAND (AP) — State officials have lifted a cease-and-desist order on a Portland company after the company agreed to restrictions on its use of toxic metals, including lead.

The Oregonian reports Bullseye Glass agreed on Monday to stop using certain heavy metals.

company

using arsenic, cadmium and hexavalent chromium in furnaces lacking pollution controls. The agreement adds lead to the list.

February voluntarily ceased

Gov. Kate Brown issued the order to Bullseye in May after monitoring at a day care near the business showed lead levels four times higher than the 24-hour benchmark.

Corrections

The East Oregonian works hard to be accurate and sincerely regrets any errors. If you notice a mistake in the paper, please call 541-966-0818.

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AccuWeather.com Forecast **WEDNESDAY THURSDAY FRIDAY TODAY SATURDAY** Partly sunny An afternoon Partly sunny and Not as warm; a Cloudy and not as hot morning shower shower in spots comfortable PENDLETO I TEMPERATURE F 67° 88° 56° 80° 53° **72°** 50° 48° 102° 92° 56° 57° **74°** 53° **72°** 50° Seattle **ALMANAC** Spokane 83/58 Wenatchee 93/66 98/67 **PENDLETON** Tacoma Moses 84/53 through 3 p.m. yesterday Lake Pullman Aberdeen Olympia Yakima 99/65 91/61

Longview

83/53

Salem

91/59 Albany

91/56

Medford

98/62

Eugene

90/56

90/61

Corvallis

92/57

101/65

The Dalles

Bend

Klamath Falls

Shown is today's weather. Temperatures are today's highs and tonight's lows.

REGIONAL FORECAST

88/52

99/66

Kennewick

103/66

Hermiston

102/67

Walla Walla

Pendleton 90/60

La Grande 93/63

Ontario •

Caldwell

96/65

99/66

98/68

Enterprise

99/70

John Day

96/64

Burns

70/51

Astoria

68/52

TEMPERATURE HIGH LOW Yesterday 100 **Normals** 103° (1931) 35° (1901) **PRECIPITATION**

Last year to date	4.99"
Last year to date Normal year to date	4.99" 6.90"
Year to date	5.60"
Normal month to date	0.35"
Month to date	0.01"
24 hours ending 3 p.m.	0.00"

through 3 p.	m. yesterday	
TEMPERA	TURE	
	HIGH	LOW
Yesterday	102°	58°
Normals	77°	52°
Records	102° (2016)	41° (1988
PRECIPITA	ATION	

0.00'

0.02'

0.16'

4.25

3.14'

24 hours ending 3 p.m.

Normal month to date Year to date

Month to date

Last year to date

Normal year to date	5.30"
SUN AND MOON	
Sunrise today	5:06 a.m.
Sunset tonight	8:42 p.m.
Magnetica today	0,02 a m

loonrise today Moonset today 11:02 p.m. Full Last New June 12 June 20 June 27 July 4

Coastal Oregon: Low clouds breaking for some sun today. Cloudy tonight. Mostly cloudy tomorrow. Eastern and Central Oregon: Some sun today. A stray thunderstorm in central parts and near the Cascades; sunshine in the upper Treasure Valley.

Western Washington: Sunny to partly

some sun at the coast.

cloudy today, but low clouds followed by

clouds today. Partly cloudy tonight. Clouds and sun tomorrow. Cascades: Very warm today with some sun:

an afternoon thunderstorm in the area in the south. Northern California: A stray thunderstorm in the interior mountains today; clouds, then

sun at the coast. Sunshine in central parts.

Eastern Washington: Sunshine and patchy

REGIONAL CITIES

	Т	oda	Wed.				
	Hi	Lo	W	Hi	Hi Lo \		
Astoria	68	52	рс	65	51	С	
Baker City	92	54	t	90	52	рс	
Bend	88	60	t	80	48	рс	
Brookings	66	55	рс	63	51	c	
Burns	91	53	рс	89	48	рс	
Enterprise	90	60	рс	87	53	рс	
Eugene	90	56	рс	72	53	c	
Heppner	96	65	рс	85	54	рс	
Hermiston	102	67	рс	92	56	рс	
John Day	96	64	t	93	56	рс	
Klamath Falls	88	52	рс	82	48	рс	
La Grande	93	63	рс	88	54	рс	
Meacham	91	56	рс	85	49	рс	
Medford	98	62	рс	87	57	рс	
Newport	65	53	рс	62	51	C	
North Bend	68	57	рс	66	53	C	
Ontario	99	66	S	101	64	рс	
Pasco	103	65	рс	92	58	рс	
Pendleton	99	67	рс	88	56	рс	
Portland	90	61	рс	75	58	C	
Redmond	93	58	t	86	50	рс	
Salem	91	59	рс	74	54	C	
Spokane	93	66	S	87	56	рс	
Ukiah	91	57	рс	83	50	рс	
Vancouver	88	60	рс	73	55	C	
Walla Walla	99	70	рс	90	60	рс	
Yakima	101	65	S	89	55	рс	

WORLD CITIES

	Today Wed.					
	Hi	Lo	W	Hi	Lo	W
Beijing	81	62	sh	91	66	S
Hong Kong	89	81	r	87	80	C
lerusalem	86	70	S	93	63	S
_ondon	74	57	t	76	56	C
Mexico City	75	54	t	75	54	t
Moscow	51	40	C	59	51	рс
Paris	76	59	t	73	57	t
Rome	79	62	t	79	62	t
Seoul	80	64	рс	81	63	рс
Sydney	65	54	sh	69	55	sh
Гокуо	72	68	C	74	69	рс

WINDS (in mph) Today Wednesday **Boardman** WSW 4-8 W 4-8 WNW 7-14 Pendleton

0-2, Low

8-10, Very High;

UV INDEX TODAY 3 5 **3** 7 **3** 7 **3** 4 **3** 1 8 a.m. 10 a.m. Noon 2 p.m. 4 p.m. 6 p.m.

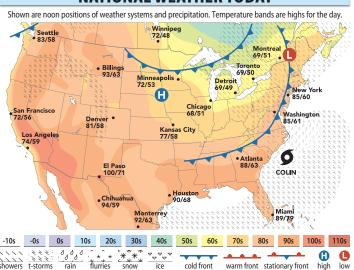
3-5, Moderate

The higher the AccuWeather.com UV Index™ num-

11+. Extreme

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NATIONAL WEATHER TODAY



National Summary: Colin will bring morning rain to the coastal Carolinas today before racing away from the United States. Showers and thunderstorms will dot the Great Lakes Northeast and Intermountain West.

Yesterday's National Extremes: (for the 48 contiguous states) High 110° in Tucson, Ariz. Low 31° in Bodie State Park, Calif.

NATIONAL CITIES												
	Т	oday	١	Wed.			Т	oday	,	Wed.		
	Hi	Lo W	Hi	Lo \	N		Hi	Lo W	Hi	Lo W		
Albuquerque	92	64 pc	94	66 9	5	Louisville	77	57 s	77	57 s		
Atlanta	88	63 s	85	62 9	5	Memphis	86	62 s	85	65 s		
Atlantic City	84	61 pc	69	55 p	oc	Miami	89	79 t	87	78 t		
Baltimore	84	58 pc	74	53 p	C	Milwaukee	67	52 pc		57 s		
Billings	93	63 pc	93	65 p	C	Minneapolis	72	53 pc	77	61 s		
Birmingham	89	62 s	85	61 9	5	Nashville	83	57 s	81	56 s		
Boise	97	67 s	100	64 p	C	New Orleans	91	75 s	93	74 s		
Boston	79	59 t	70	53 p	C	New York City	85	60 pc	69	56 t		
Charleston, SC	90	69 r	87	66 9	5	Oklahoma City	89	65 s	90	68 s		
Charleston, WV	76	54 pc	72	51 s		Omaha	79	59 s	87	69 s		
Chicago	68	51 pc	73	54 9	5	Philadelphia	86	60 pc	71	55 sh		
Cleveland	69	52 c	68	52 p		Phoenix	107	81 s	107	83 s		
Dallas	91	68 s	93	70 s		Portland, ME	71	56 t	69	49 c		
Denver	81	58 t	87	60 t		Providence	79	57 pc		52 t		
Detroit	69	49 pc	70		C	Raleigh	86	59 sh		55 s		
El Paso	100	71 pc	100		C	Rapid City	86	55 s	89	58 pc		
Fairbanks	65	53 pc	66	48 9		Reno	95	59 s	93	60 pc		
Fargo	73	50 pc	81	63 t		Sacramento	90	57 s	89	58 pc		
Honolulu	83	72 pc	83	73 s		St. Louis	77	57 s	81	66 s		
Houston	90	68 s	90	68 9		Salt Lake City	91	67 t	93	69 pc		
Indianapolis	70	54 s	74	55 9		San Diego	71	63 pc		65 pc		
Jacksonville	89	68 pc	92	69 9		San Francisco	72	56 pc		56 pc		
Kansas City	77	58 s	84	69 9		Seattle	83	58 s	72	54 c		
Las Vegas	108	83 s	108	84 p	C	Tucson	105	75 s	104	76 s		

Little Rock 89 65 s 88 65 s Washington, DC 85 61 pc 74 59 pc 78 61 pc Wichita 85 64 s Weather (W): s-sunny, pc-partly cloudy, c-cloudy, sh-showers, t-thunderstorms, r-rain, sf-snow flurries, sn-snow, i-ice.