Identical near-shore geologic subduction fault structure as several recent catastrophic earthquakes and tsunamis:

- Indonesia (2004) 240,000 fatalities
- Chile (2010) 500 fatalities
- NE Japan (2011) 18,000 fatalities
Cascadia Subduction Zone: Event Frequency

Major CSZ earthquake every 200-500 years. Last great quake in 1700 A.D.

Approximate 50-year probabilities:
M9.0: 14%
M8.0-8.5: >25-40%
Cascadia Subduction Zone: By the Numbers

- 700 miles long, from northern California to British Columbia
- Capable of producing very large earthquakes (M9+) that impact a wide area
- Similar in size and impact to the 2004 Indonesian and 2011 NE Japan earthquake and tsunami
- Can produce devastating tsunamis
- 37% chance of a mega-thrust earthquake in the next 50 years
Cascadia Planning Assumptions

Three metropolitan areas in impact zone

- Portland, Oregon
- Seattle, Washington
- Vancouver, B.C.

8 million people live in the impact zone

- No electricity for weeks or months
- No fuel for weeks or months
- Limited to no commercial deliveries of food/water for several weeks
- No running water and no sanitary sewer systems for weeks, months, or years.
Cascadia Rising 2016 Exercise

Exercise Dates:

- June 7-10, 2016
- Operational Period: 8-12 hours

Purpose:

- Enhance Disaster Response Joint-Operations – test the local, state, tribal, and federal government as well as select private sector and non-governmental organizations’ ability to jointly respond to a Cascadia Subduction Zone 9.0M earthquake and tsunami with associated aftershocks along the West Coast of the United States

- Prepare for a Level-1 catastrophic earthquake disaster – link together Emergency Operations Centers (EOCs) throughout the Pacific Northwest to coordinate and mimic all facets of a complex, wide-area, response to a catastrophic disaster.
Cascadia Rising 2016 Exercise

Exercise Participants

- **Washington:**
  - Washington EMD, state partners, and National Guard

- **Oregon:**
  - Oregon OEM, state partners, and National Guard
  - 18 counties, numerous cities, tribes, and private sector and NGOs.

- **Idaho:**
  - Idaho DHS & EM, state partners, and National Guard
  - 10 counties, cities, tribes, and private sector and NGOs

- **Emergency Management British Columbia and Public Safety Canada (TBD)**

- **Military** (USCG, NRNW, JBLM, NORTHCOM and TRANSCOM)

- **FEMA Region 10 and Federal interagency partners**

- **NRCC (TBD)**
Cascadia Rising 2016 Exercise

Exercise Scenario:

CSZ 9.0M Earthquake and resulting Tsunami

Modelled impacts:

- Direct Impact to 3 States and British Columbia
- Complete rupture of the 800-mile Fault Line
- Impacts affecting over 140,000 square miles
- Ground shaking lasts up to 5 minutes
- Numerous aftershocks with several of M7.0+
- Modelled estimates: 1,100 fatalities from earthquake; 13,000 fatalities from tsunami; 24,000 injured.
Cascadia Rising 2016 Exercise

Linked Exercises

Ardent Sentry
Vigilant Guard

Turbo Challenge
Joint Logistics Over The Shore
Cascadia Rising 2016 Exercise

Scenario Document

- Foundation: Provides information on broad impacts to the built environment caused by scenario (CI facilities, buildings, etc.)
- Frames the problem and educates both players and exercise planners on the impacts, especially to the major critical infrastructures, caused by a CSZ earthquake. Covers Oregon and Washington.
- Published: January 2015
Cascadia Rising 2016 Exercise

**Overarching Exercise Objectives:**

1. **Operational Communications**
   Demonstrate the ability of Emergency Operations Centers (EOCs) to establish and sustain voice and data communications with other EOCs and with the general public to include basic restoration of communications infrastructure within the impacted area to support response operations and coordinated public messaging.

2. **Public Health and Medical Services**
   Demonstrate the ability to organize, coordinate, and deliver targeted public health and medical services to disaster survivors to include temporary medical facilities, medical surge operations, and patient evacuation and transport to save lives and reduce the suffering of disaster survivors.

3. **Mass-Care Services**
   Demonstrate the ability to coordinate and deliver life-sustaining services to disaster survivors with a focus on hydration, feeding, emergency sheltering, evacuations, and donations and volunteer management.
Cascadia Rising 2016 Exercise

4. Situational Assessment
Demonstrate the ability of EOCs at all levels to provide decision-makers and EOC officials with relevant information regarding the extent of disaster damages to critical infrastructures and other facilities, cascading effects, and the status of ongoing response operations and share this information with other EOCs and critical stakeholders.

5. Critical Transportation
Demonstrate the ability of EOCs to coordinate the establishment of access into impacted areas via appropriate ground, air, and maritime transportation corridors to deliver response teams, equipment, and disaster relief supplies to meet the basic needs of disaster survivors and stabilize the incident.

6. Operational Coordination
Demonstrate the ability to establish operational control and coordination structures within the impacted region to include the mobilization, employment, and sustainment of critical internal and external response resources to meet basic survivor needs and stabilize the incident.
Cascadia Rising 2016 Exercise

**Ramp-up Events (WA)**

**Seminars/Workshops Completed:**

- Exercise Design Seminars - October 14 and 15, 2014
- Scenario Webinars - January 15 & 20, 2015
- Situational Awareness and Common Operating Picture Workshop- April 13, April 20, and May 27, 2015
- Critical Transportation Workshops – April 17 and 30, 2015
Upcoming Training and Ramp-up Events

- Critical Transportation Workshop | July 21, 2015 | King County and August 5, 2015 | Pierce County.
- L0348 Orientation to Mission Assignments | July 16-17, 2015 | Camp Murray, WA
- L0348 Orientation to Mission Assignments | July 20-21, 2015 | Salem, OR
- L0411 Mass Care/Emergency Assistance Support for Field Operations | July 28-31, 2015 | Lynnwood, WA
- L0969 NIMS ICS All-Hazards Communication Unit Leader | January 12-14, 2016 | Camp Murray, WA
## Major Exercise Design Actions/Products

<table>
<thead>
<tr>
<th>Major Product</th>
<th>Milestone Date</th>
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<tbody>
<tr>
<td>Publish Exercise Scenario Document</td>
<td><strong>Completed</strong></td>
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<tr>
<td>Publish Exercise Joint Objectives</td>
<td><strong>Completed</strong></td>
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<tr>
<td>Publish ‘Ground Truth’ document</td>
<td>August 2015</td>
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<tr>
<td>Develop Exercise ‘injects’ and complete Master Scenario Events List (MSEL)</td>
<td>January 2016</td>
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<tr>
<td>Publish Exercise Evaluation Guides (EEGs)</td>
<td>January 2016</td>
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<tr>
<td>Publish Control and Evaluation Plan</td>
<td>April 2016</td>
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<tr>
<td>Conduct Functional Exercise</td>
<td>June 7-10, 2016</td>
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<tr>
<td>Produce After Action Reports</td>
<td>September 2016</td>
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Cascadia Rising 2016 Exercise Website

http://www.fema.gov/cascadiarising2016

Homepage
Information for Exercise Planners and Players

Includes an Event Calendar
Cascadia Rising 2016 Exercise

Milestones

- Jan '15: Publish Scenario Document
- Jan '15: CSZ Plans Seminars
- Dec: Exercise Design Seminars
  - June: C&O Meeting
  - May: Kick-Off
- Feb '15: Initial Planning Meeting
- Feb '16: MSEL Synch Meeting
- Feb '16: Publish Media Plan
- June: C&O Meeting
- May: Kick-Off
- Sept '15: Finalize Concept for JLOTS and Ultimate Caduceus field play
- May '16: Conduct C&E Training
- May '16: MSEL Synch Meeting
- Sept '16: Publish Regional AAR
- Conduct Exercise

LEGEND
Blue: Exercise Design
Black: Meetings
Red: Ramp Up Event

TODAY
2015
2016
2014
Additional Ramp-up Events TBD
To learn more about the Cascadia Rising 2016 (CR-16) Exercise, please contact your local Office of Emergency Management or the following representatives:

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