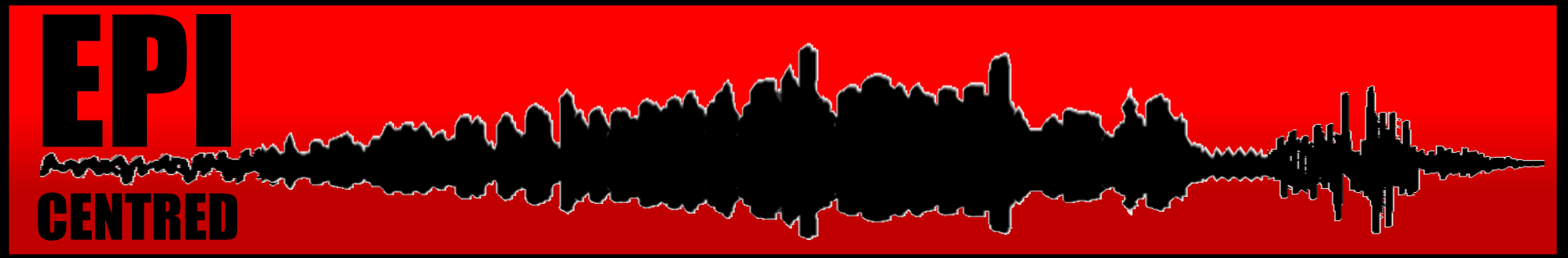
EPI
CENTRED

SPATIAL INTERFACE RESEARCH LAB

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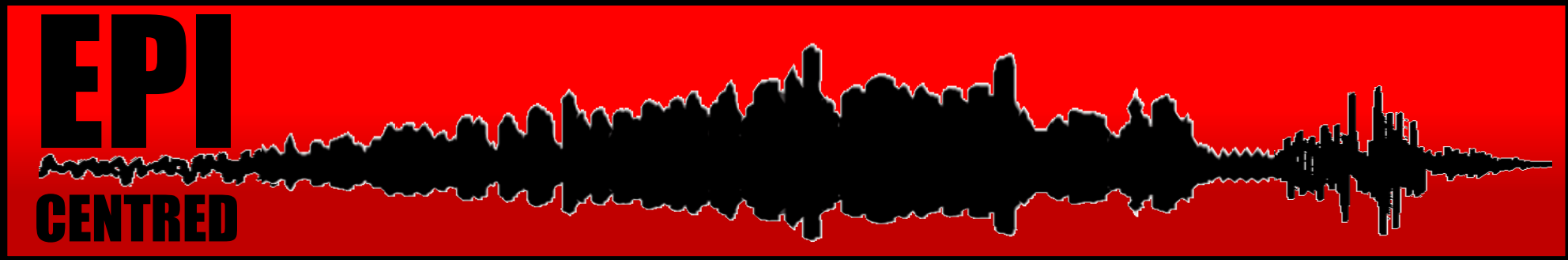
The Team

- Sonja Aagesen
  - Project Manager, Coder
- Tom McKay
  - Coder, UI Design
- Ian Lochhead
  - Data acquisition/management

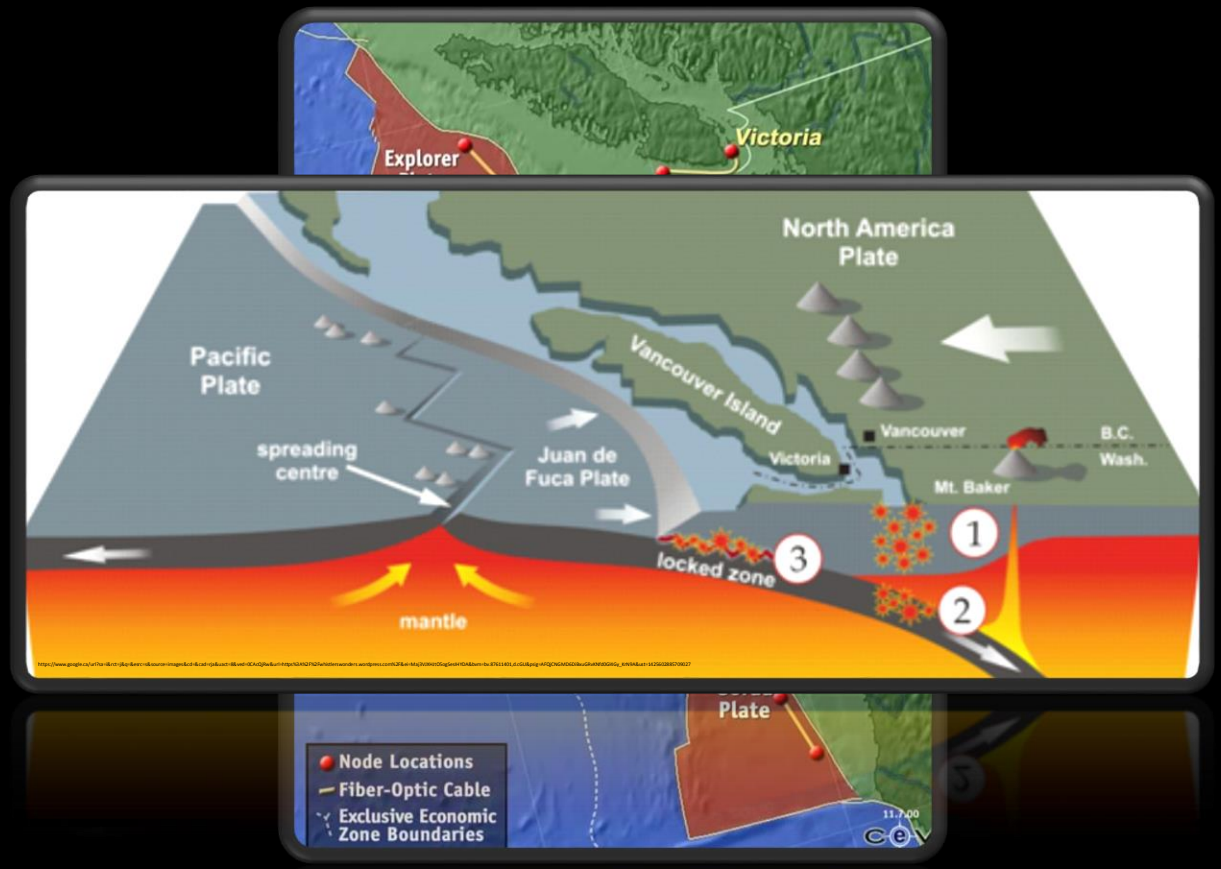


Earthquake Preparedness Interactive

Increasing awareness, encouraging preparedness, and reducing the cognitive load in order to help citizens mitigate risks and make informed decisions before, during, and after, an earthquake occurs

Earthquake RISK

Geological evidence suggests that a great earthquake occurs on every 300-800 years



The Last Major Earthquake

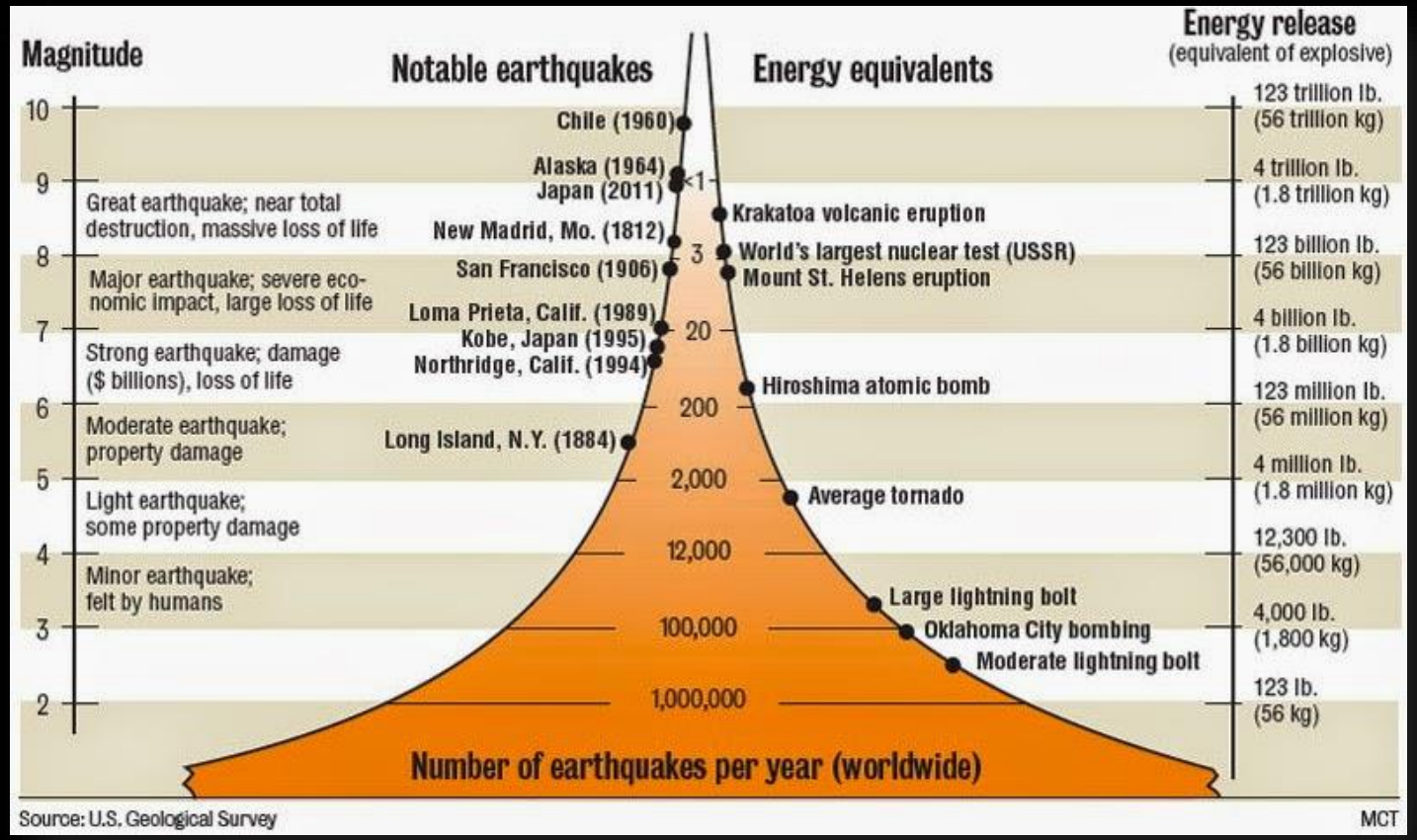
The 1700 Cascadia Earthquake

Estimated magnitude: 8.7-9.2

Research suggests that there is a 1 in 4 chance there will be another great earthquake in this region over the next 50 years

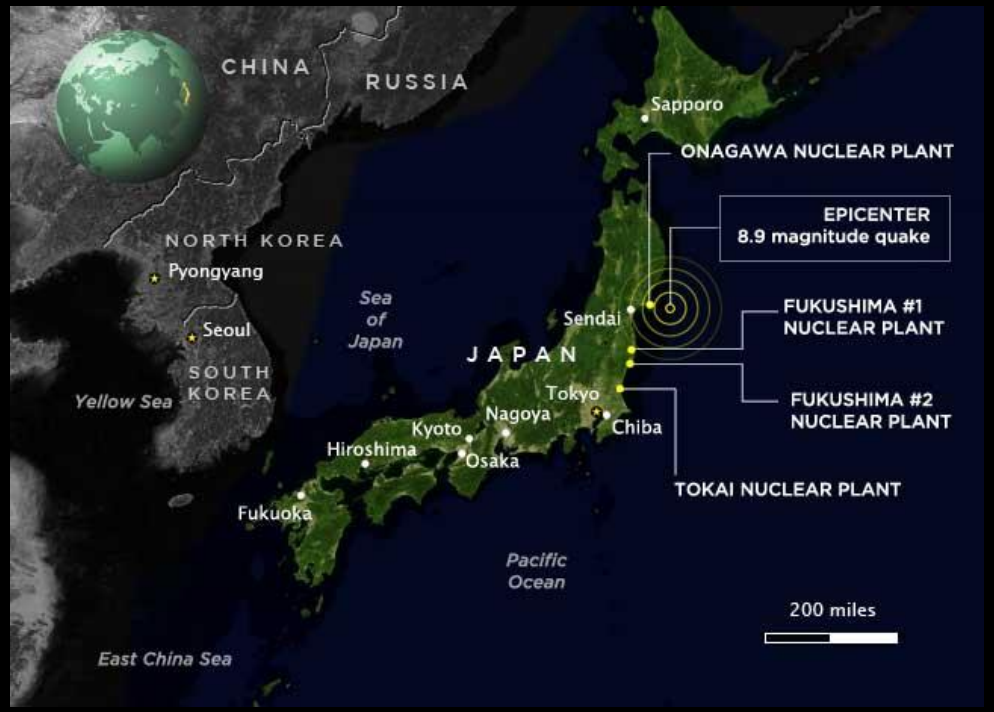
ARE YOU PREPARED?

Earthquake Damage



Christchurch Earthquake

Japan Earthquake



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BC Earthquake Damage

Estimated damage totaling $75 Billion

Damaged buildings and infrastructure

Disrupted transportation systems

Loss of electricity and telecommunications

Preparedness

Earthquakes can occur without any advanced warning

Prepare an emergency plan

Stock enough supplies to be self-sufficient for 72 hours

Many citizens will be forced to evacuate their homes

Where will they go? How will they get there?
Are they familiar with their location?

Scenario 1

- Earthquake starts
- Take cover
- Wait for shaking to stop
- Emerge from cover
- Injured? Now what?

Scenario 2

- Phone receives text message
- “Earthquake Alert”
- Drop, cover, and hold on!
- Earth starts shaking
- Emerge from cover
- EPI-centered app open on mobile device showing location and directions to closest staging/response area

Comparing Scenarios

Scenario 1

- Citizens were unprepared for the earthquake
- Earth began shaking and then they were required to drop, cover, and hold on
- Once the shaking stopped they had to gather themselves and then attempt to remember their plan of action

Scenario 2

- Citizens were alerted by EPI-centred that an earthquake has been detected
- They were then able to take cover and protect themselves before the shaking started
- After the shaking had stopped, they were again alerted by EPI-centred, reminded to gather essential items from their EQ plan, and directed to the nearest muster area

EPI-Centred

Advanced Warning SMS Alerts

Automatic Route Calculation

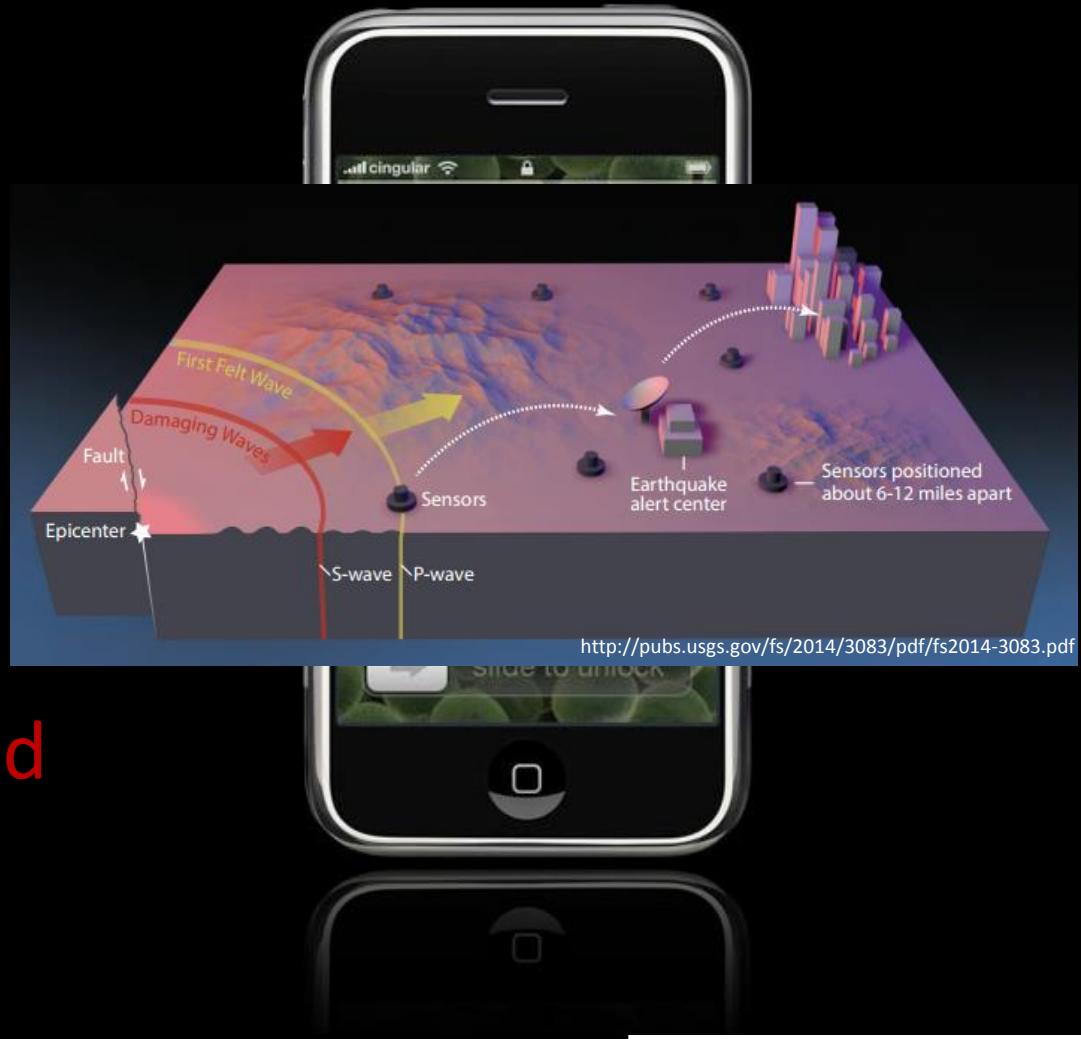
Emergency Services Locator

Preparedness

- Preparation could save your life!
  - Safe Practices
  - Emergency Supplies
  - Evacuation Kits
  - Maps
- EPI-centred brings advanced warning and risk mitigation to your mobile device

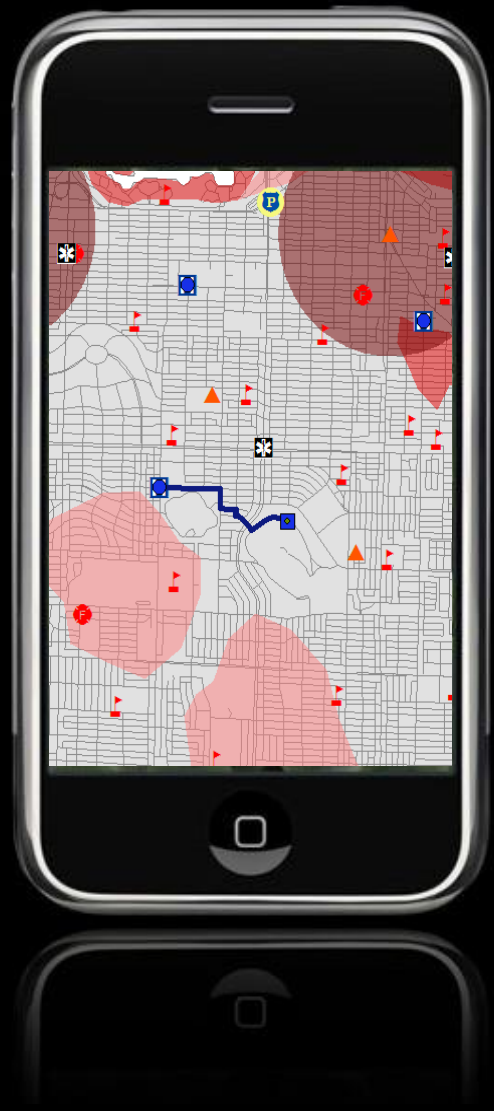
Advanced Warning

- Earthquake alert centre receives signal from sensors
- Decodes signal and broadcasts SMS warning messages
- Citizens receive “Earthquake Detected” message
- EPI-centre automatically launches and provides support to citizens



Mapping Features

- GPS enabled location services
- Automatically loads closest earthquake response/shelter locations
- Plans fastest route based on distance and time
- Highlights high risk areas to be avoided



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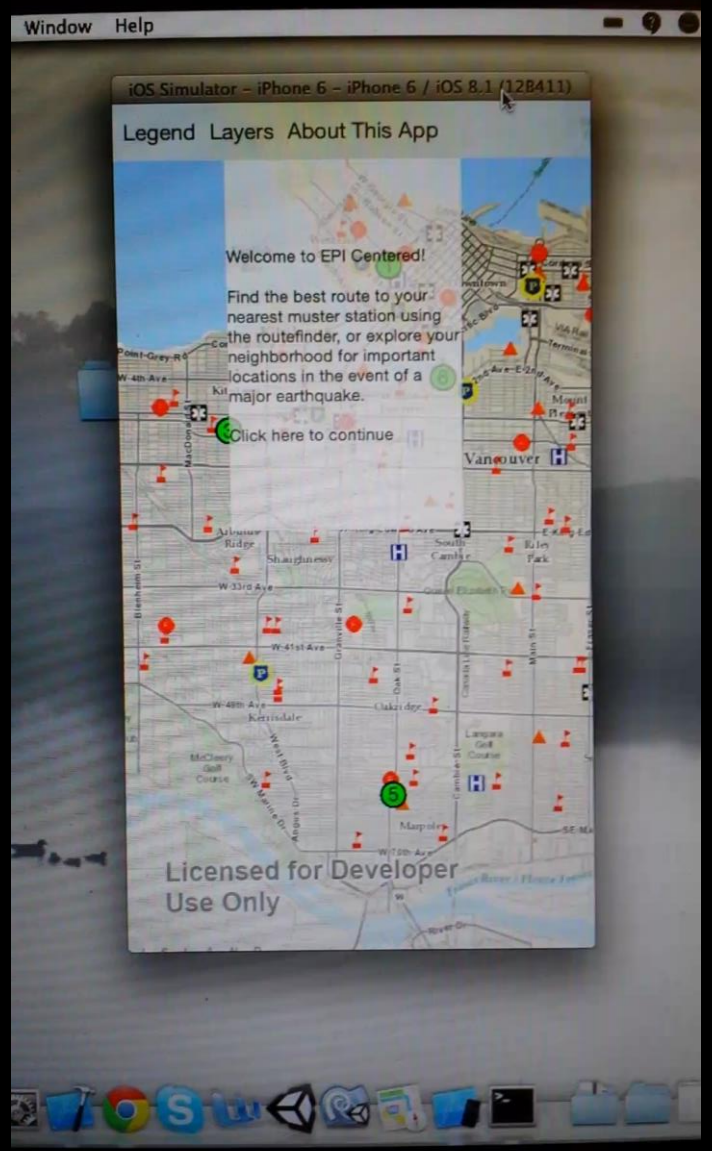
In Use

- Mobile device receives SMS and opens EPI-centred
- GPS signal is used to determine users location
- Uses location to calculate the shortest route to the closest muster station
- Layers can be toggled on and off, identifying the location of important emergency services



Future Advancements

- Integrated Emergency Preparedness Planner
- Survival Kit Checklist
  - With reminder notifications
- Evacuation Kit Checklist
- “My Location” broadcasting to family and friends
- Central Muster Zone locator

Conclusion

After the earthquake, many people will be left in a state of shock, uncertain of what to do next and where to go for help

Our mission is to increase awareness, let citizens take the initiative and provide assistance to local emergency services

[illegible] Earthquake Detection Centre with [illegible] after an earthquake

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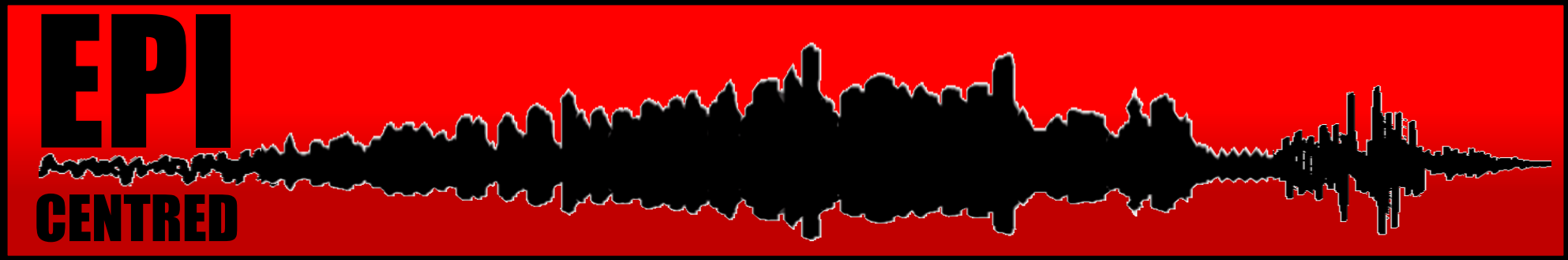

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