



The Seattle Seahawks and Pacific Northwest Seismic Network (PNSN) are combining forces to monitor the seismic shaking and raucous rumbling of 12s celebrating at Century Link Field during the 2017 NFL Playoffs.

The PNSN is deploying 6 seismometers in the stadium to record motion, with improved computing power and web tools, to deliver seismic displays for fans to monitor shaking as it happens, and also full game annotated seismograms that highlight big plays in the game.

QuickShake (<http://quickshake.pnsn.org/>) allows fans to watch a real-time continuous stream of shaking from the seismometers that delivers data so quickly to the web (~1.5 seconds) that it beats the delay of NFL broadcasts on your TV. This tool is a great demonstration of how quickly the PNSN can transfer, interpret and display seismic data. Check out the YouTube (<https://www.youtube.com/watch?v=5dvpjqkZTJI>) for a great demonstration of this from the game winning play of the 2015 NFC Championship Game.

Hawk-o-Grams, the PNSN's customized Seahawks version of a seismogram, display the entire seismic record of the game with markers highlighting each instance of strong shaking, annotating which big plays caused fans to rumble in Century Link. These records will be updated throughout the game as the action unfolds. The PNSN Seahawks page (<http://pnsn.org/seahawks>) has lots of seismo-seahawks information.

### **QuickShake Q's**

Based on a significant signal you observe, estimate what is the delay in seconds between QuickShake and your TV broadcast? \_\_\_\_\_

Based on the seismic signals visible on QuickShake, are you able to predict whether or not a big play is about to be broadcast on TV? \_\_\_\_\_

### **Post game Hawk-o-Gram Q's**

What play caused the largest recorded seismic signal? \_\_\_\_\_

What time did that occur? \_\_\_\_\_

How long did it last? \_\_\_\_\_

What seismic station recorded the largest motion throughout the game? \_\_\_\_\_

Earthquake related links:

<https://www.ready.gov/earthquakes>

<http://www.dnr.wa.gov/programs-and-services/geology/geologic-hazards/emergency-preparedness>

<https://www.seattle.gov/emergency-management/preparedness/prepare-yourself>