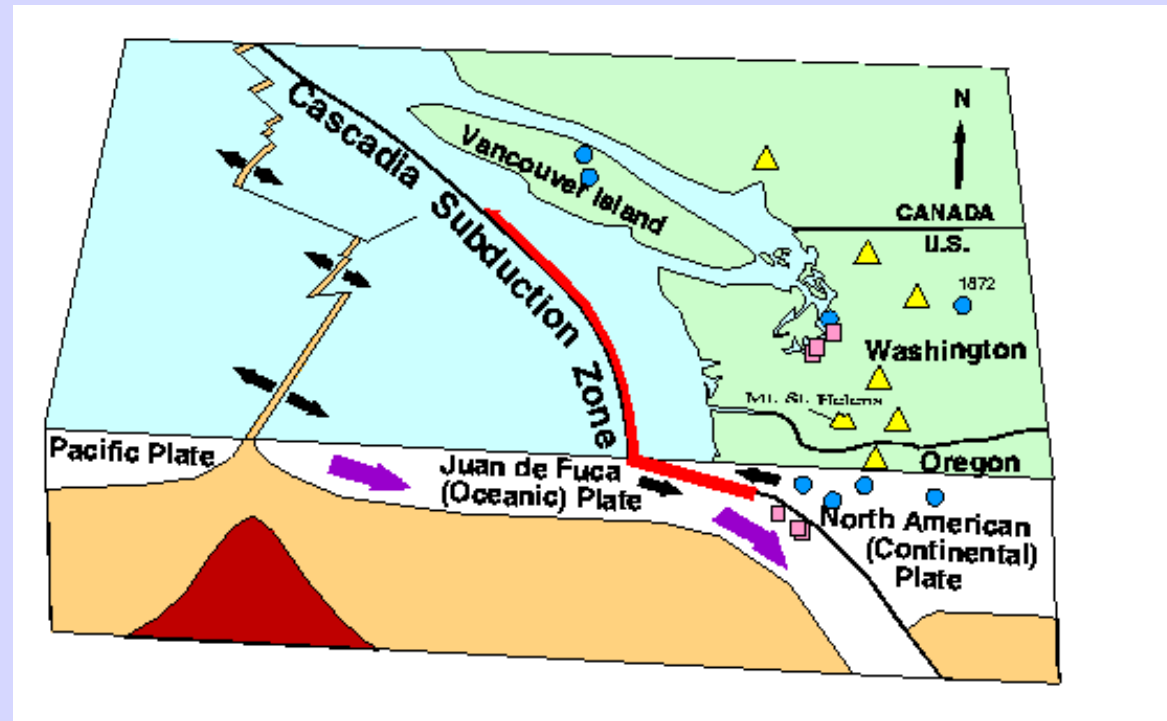


Deep Tremor along the Cascadia Subduction Zone

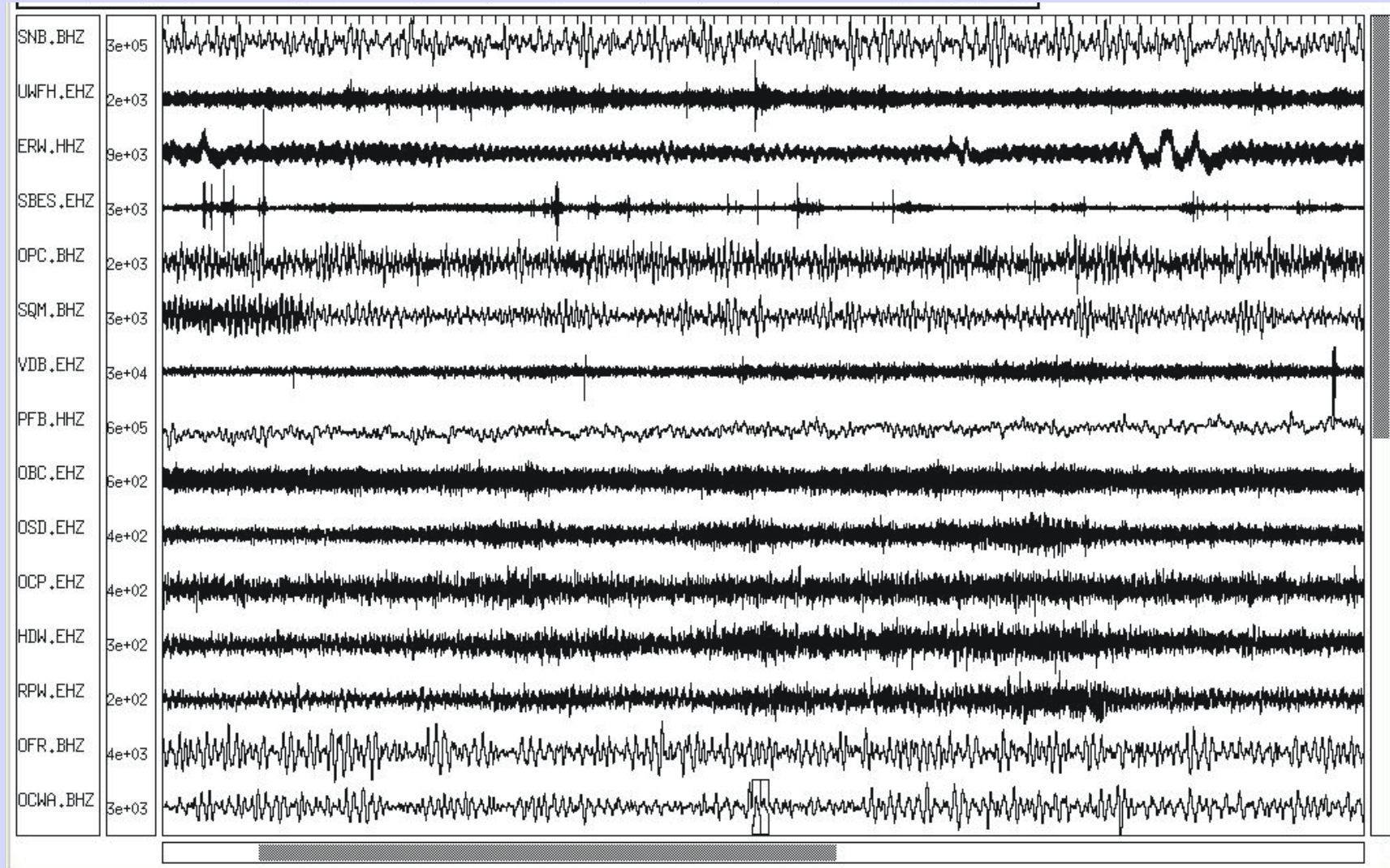


Wendy McCausland – University of Washington
Dr. Steve Malone – University of Washington,
Pacific Northwest Seismograph Network

Raw Unfiltered Data – 03/04/03

A

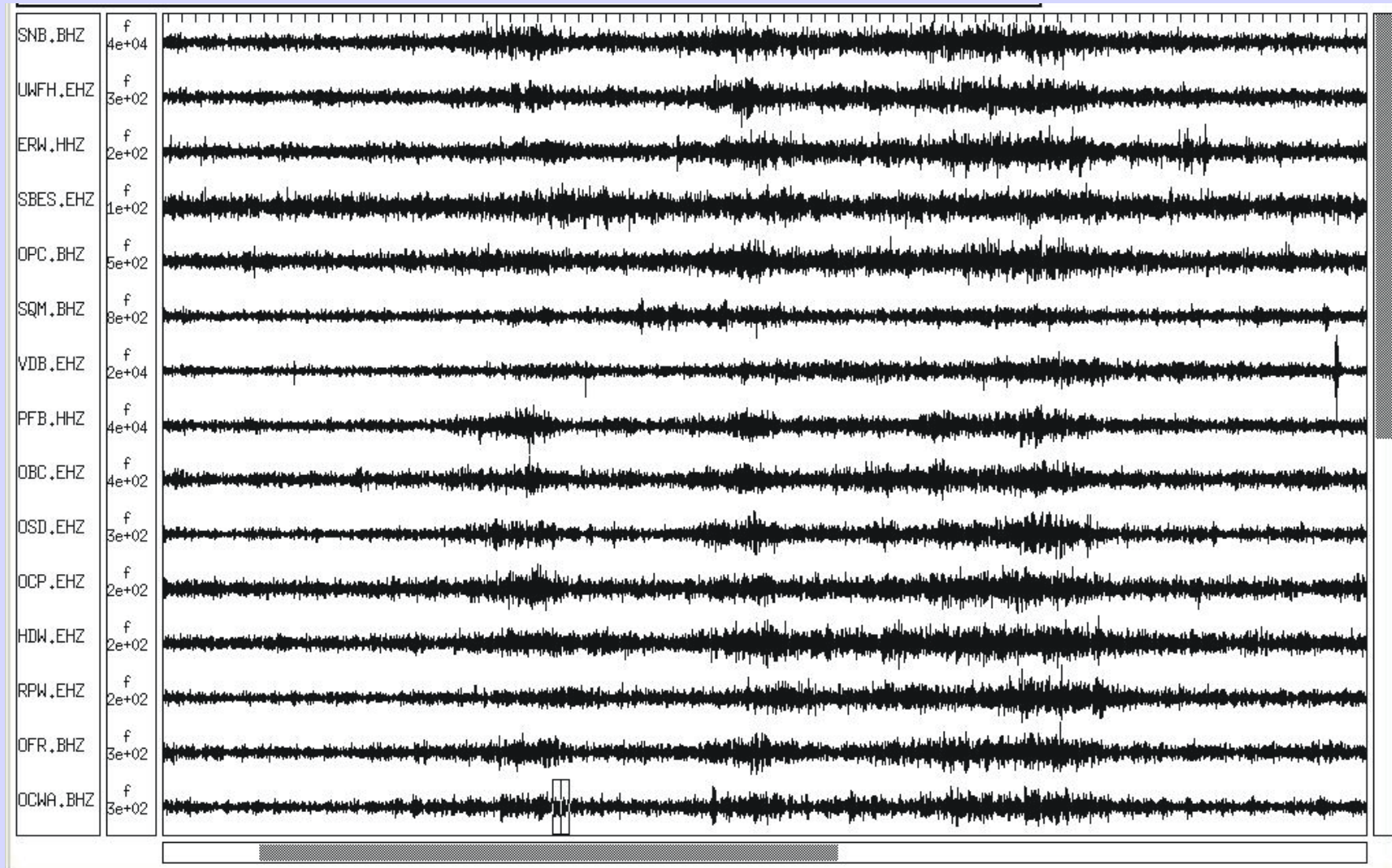
16 minutes



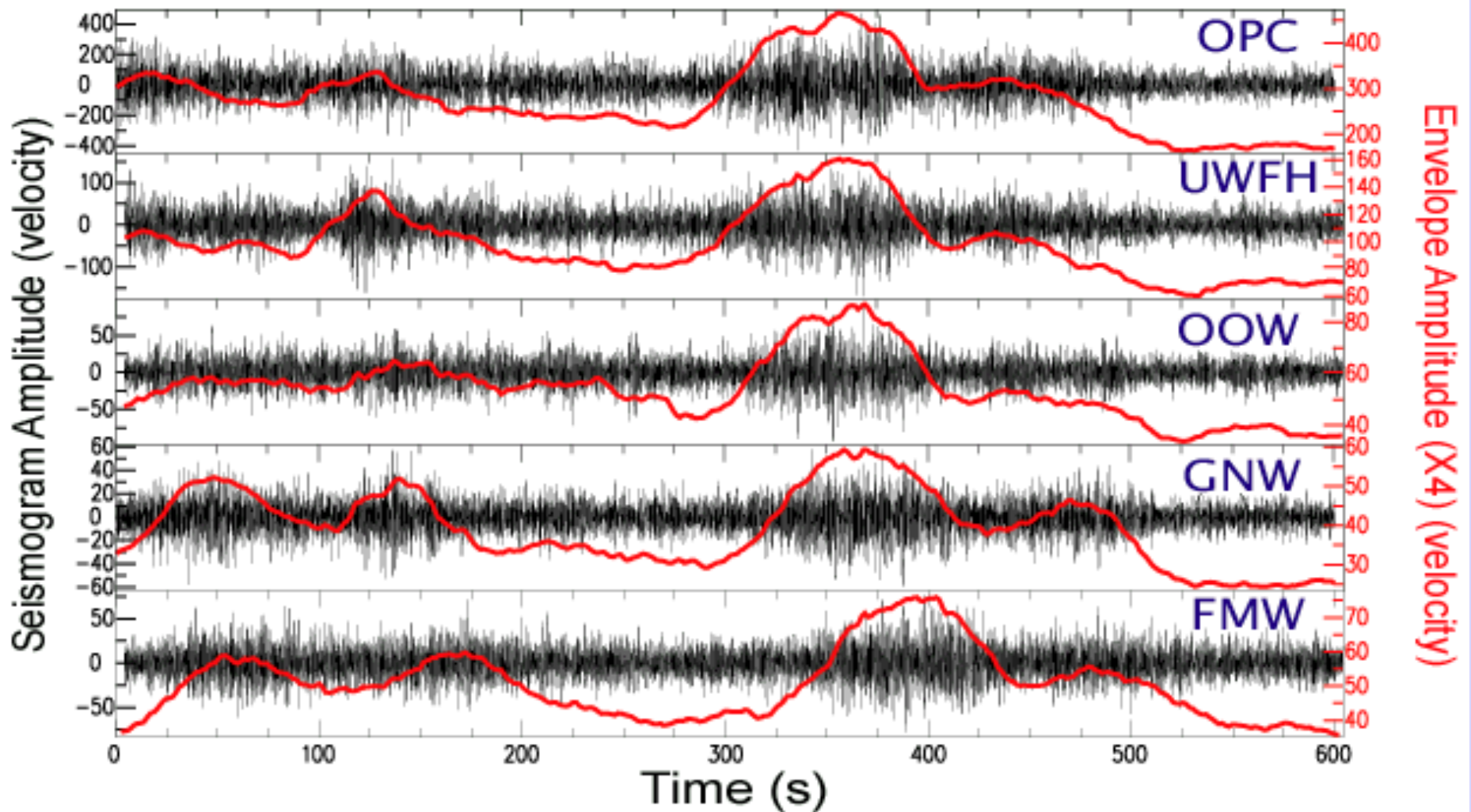
Bandpass Filtered Data – 03/04/03

B

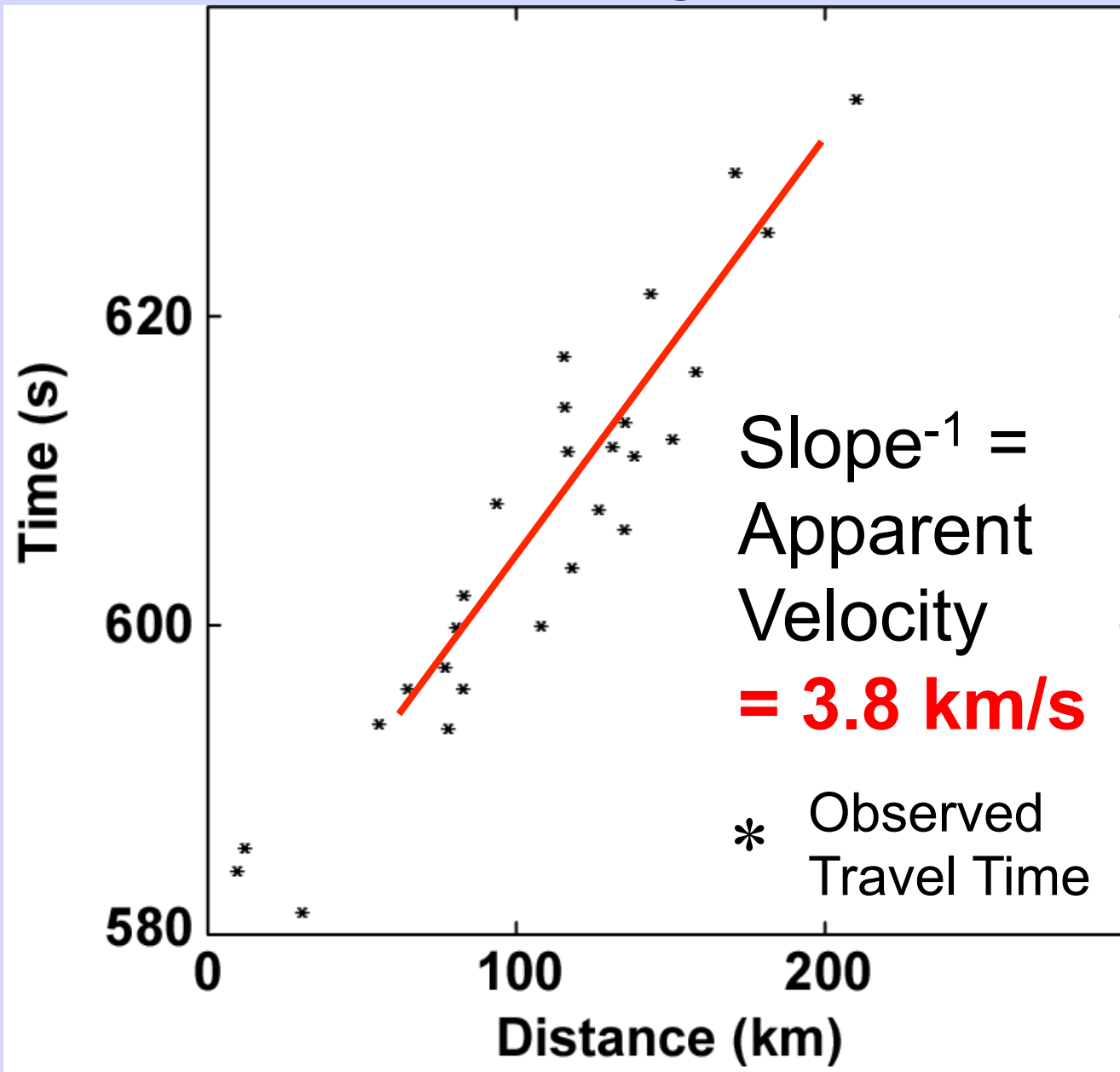
16 minutes



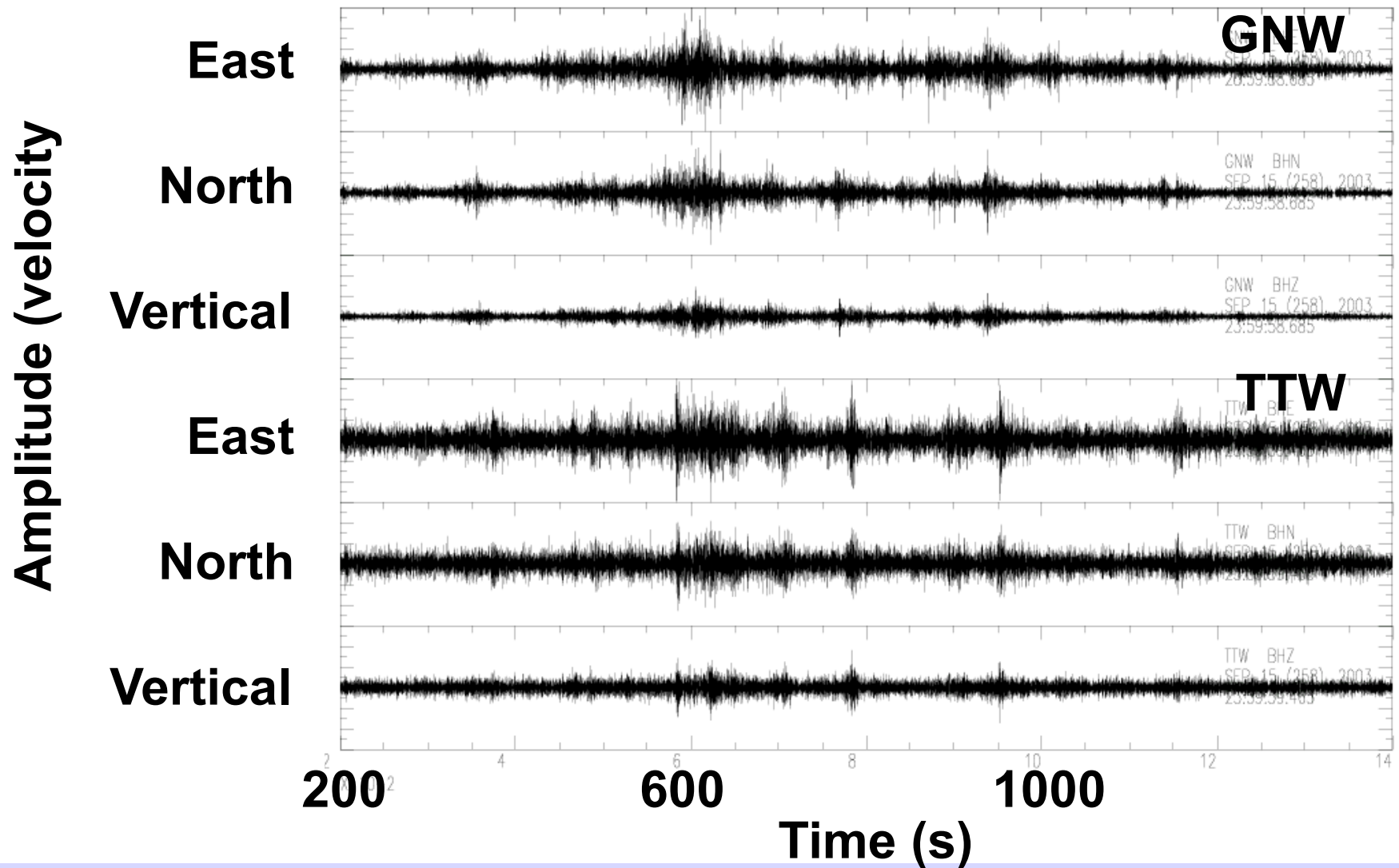
Envelopes and Seismograms Bandpass Filtered: 1-6 Hz FEB 28, 2003 10:15:40 (UTC)



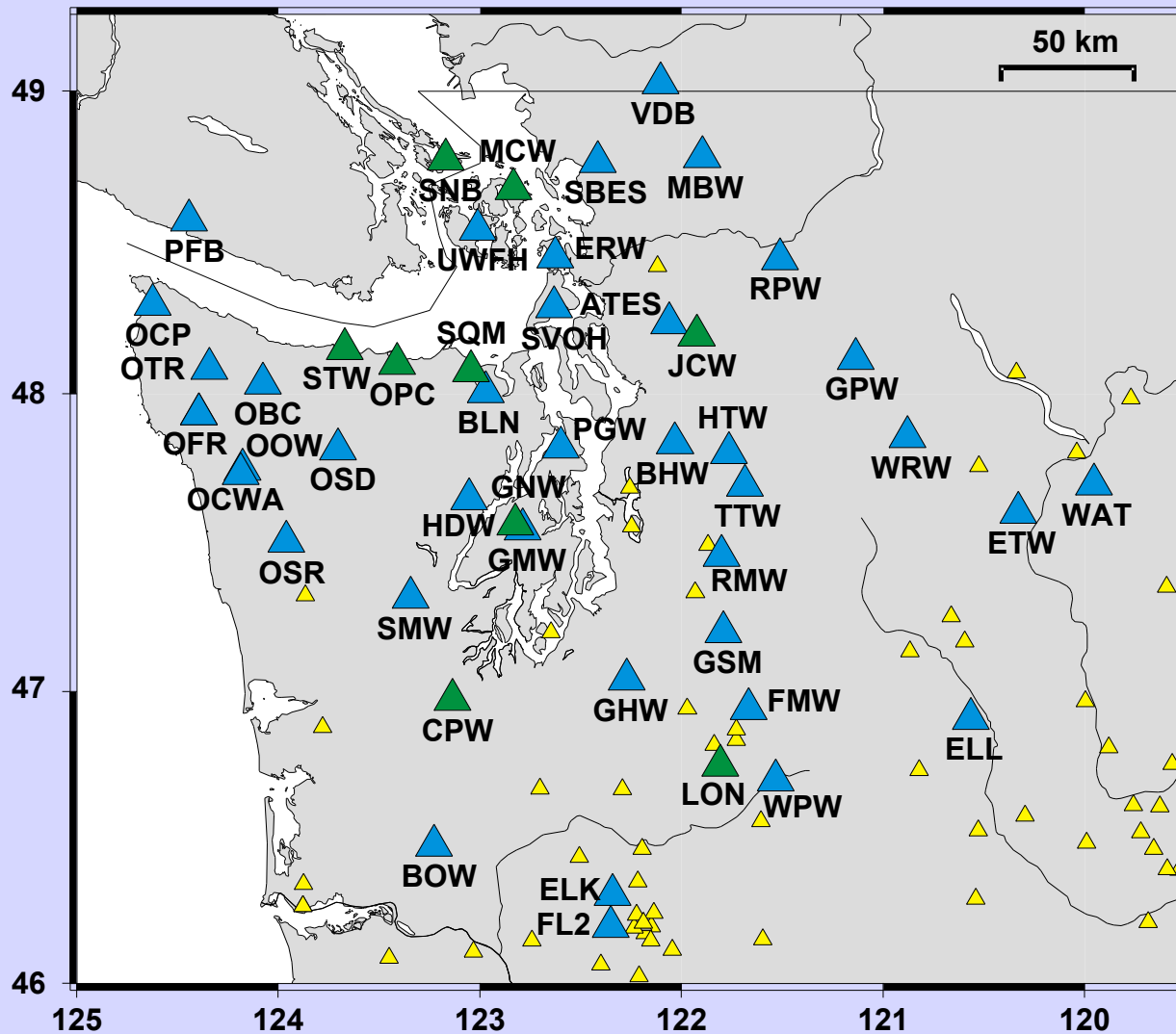
Apparent Velocity of Tremor



Energy Strongest on Horizontal Components



Stations Used to Locate Tremor



▲ Station used to identify tremor

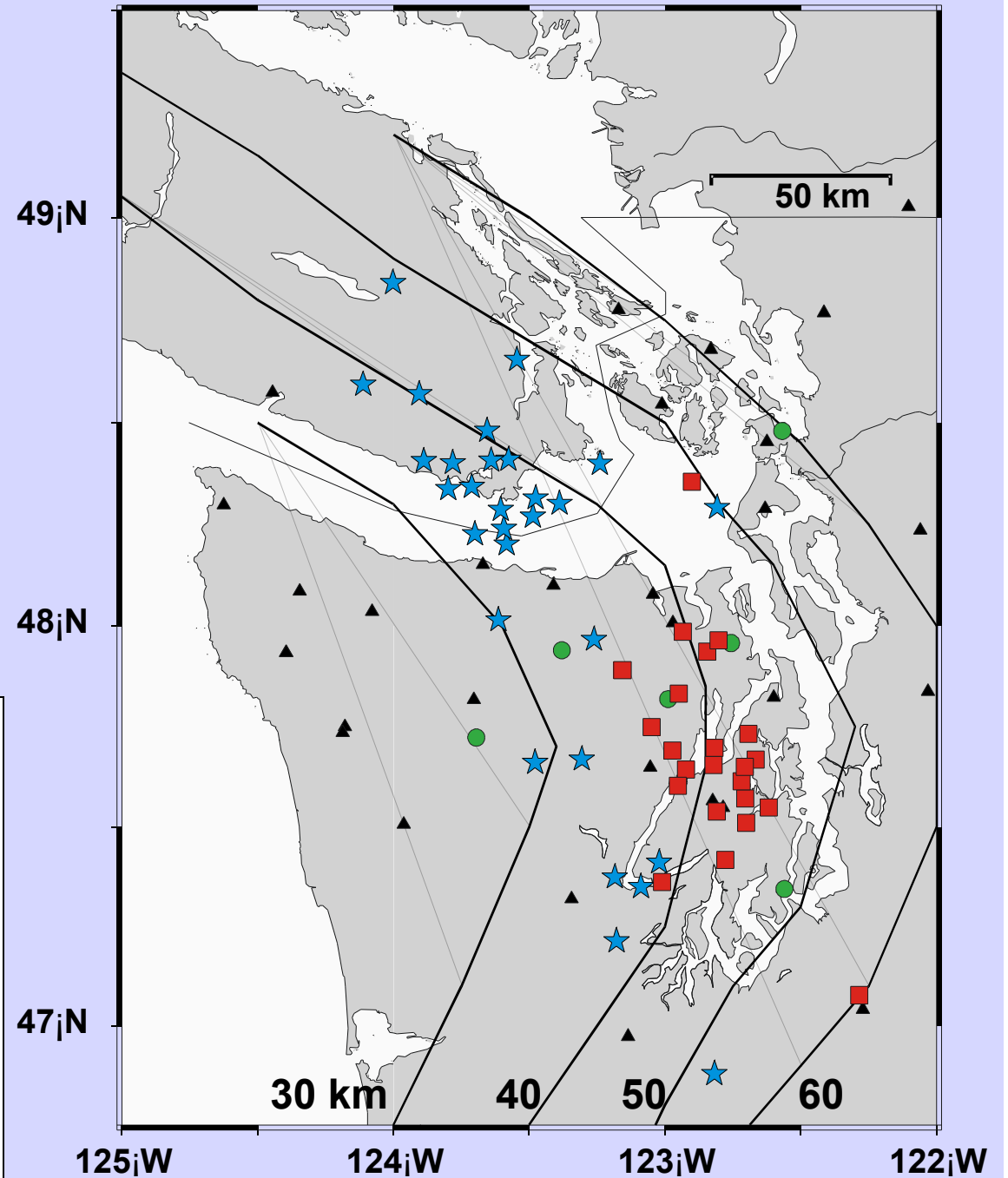
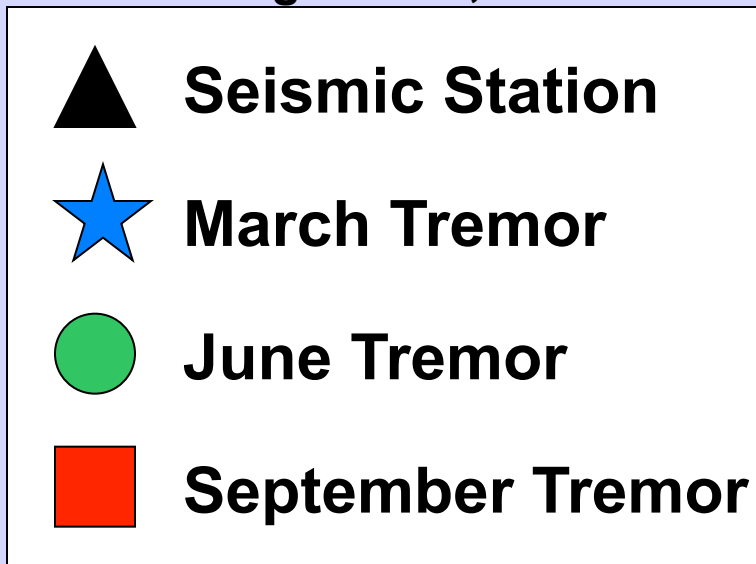
▲ Station used to locate tremor

▲ Other PNSN stations

Tremor Burst Epicenters 2003

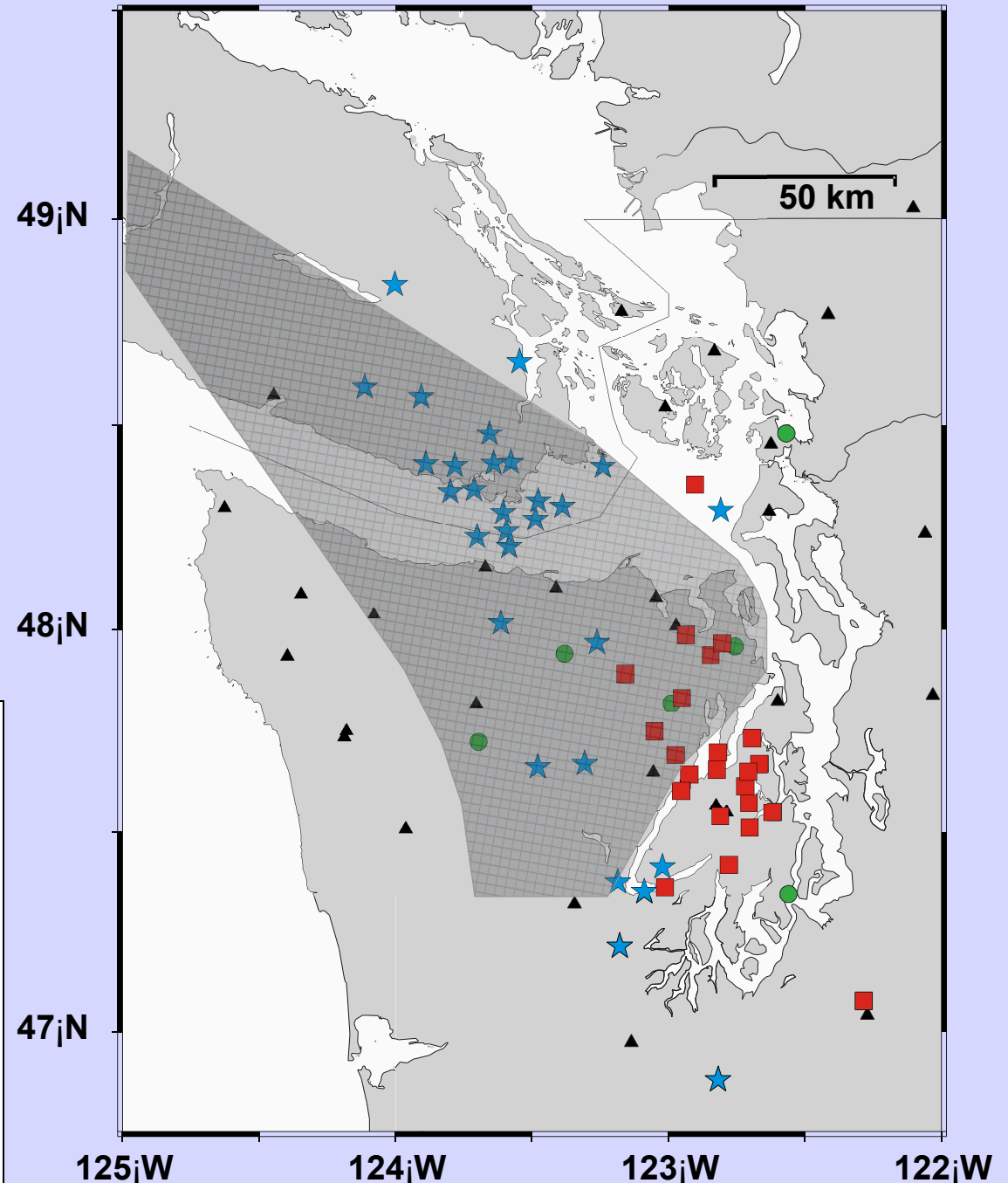
Slab
Contours

Creager et al., 1995



Slip Surface Inferred from GPS

Dragert et al, 2001



Highlights to Date:

- **Not restricted to one source area:
Bursts in Puget sound area and
under Vancouver Island**
- Source moves around with time
- Depths are not yet well constrained
- Spatial and Temporal coincidence with
slow slip events
Exact relationship not yet discernable