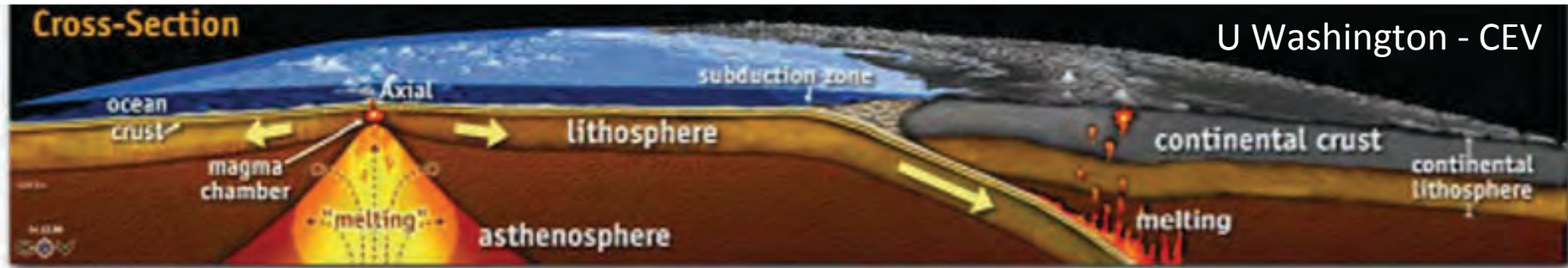


Cascadia Basin Ridge to Trench

Suzanne Carbotte, Helene Carton, Pablo Canales, Mladen Nedimovic

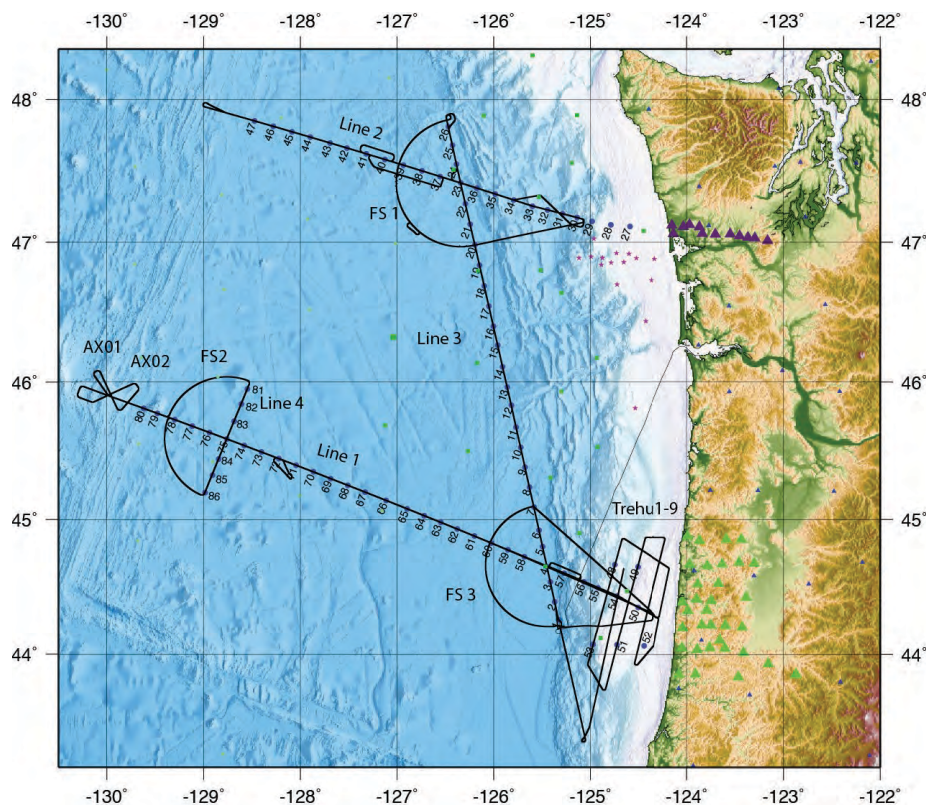


- How does the JdF plate evolve from ridge to trench and is there significant hydration of the lower crust and upper mantle prior to subduction at this warm young plate?
- How does the structure of the downgoing plate vary along the trench across distinct structural regimes of the Cascadia subduction zone?



The Experiment

- Complete plate transects from JdF Ridge to the trench.
- ~ 400 km long transect parallel to deformation front.
- Fan shoots for study of mantle anisotropy, 2 MCS lines at Axial
- Seismic Oceanography and OBS/Land station add-ons



- Coincident long streamer MCS (8 km) and wide-angle OBS (85 stations)
- Wash&OR Land stations
- Crustal structure, crustal and upper mantle seismic velocities, fault distribution across plate and at deformation front
- R/V *Langseth* MGL1211
June 13-July 8
- R/V *Oceanus* OC1206A
June 7-July 13

AGU Presentations

T11 Before and After Subduction

Monday am T11A-2523 Han et al,
Monday 1:40pm: T13H-01 Carbotte et al,
OS51- Friday 8 am: OS51D-1904. Biescas
et al

