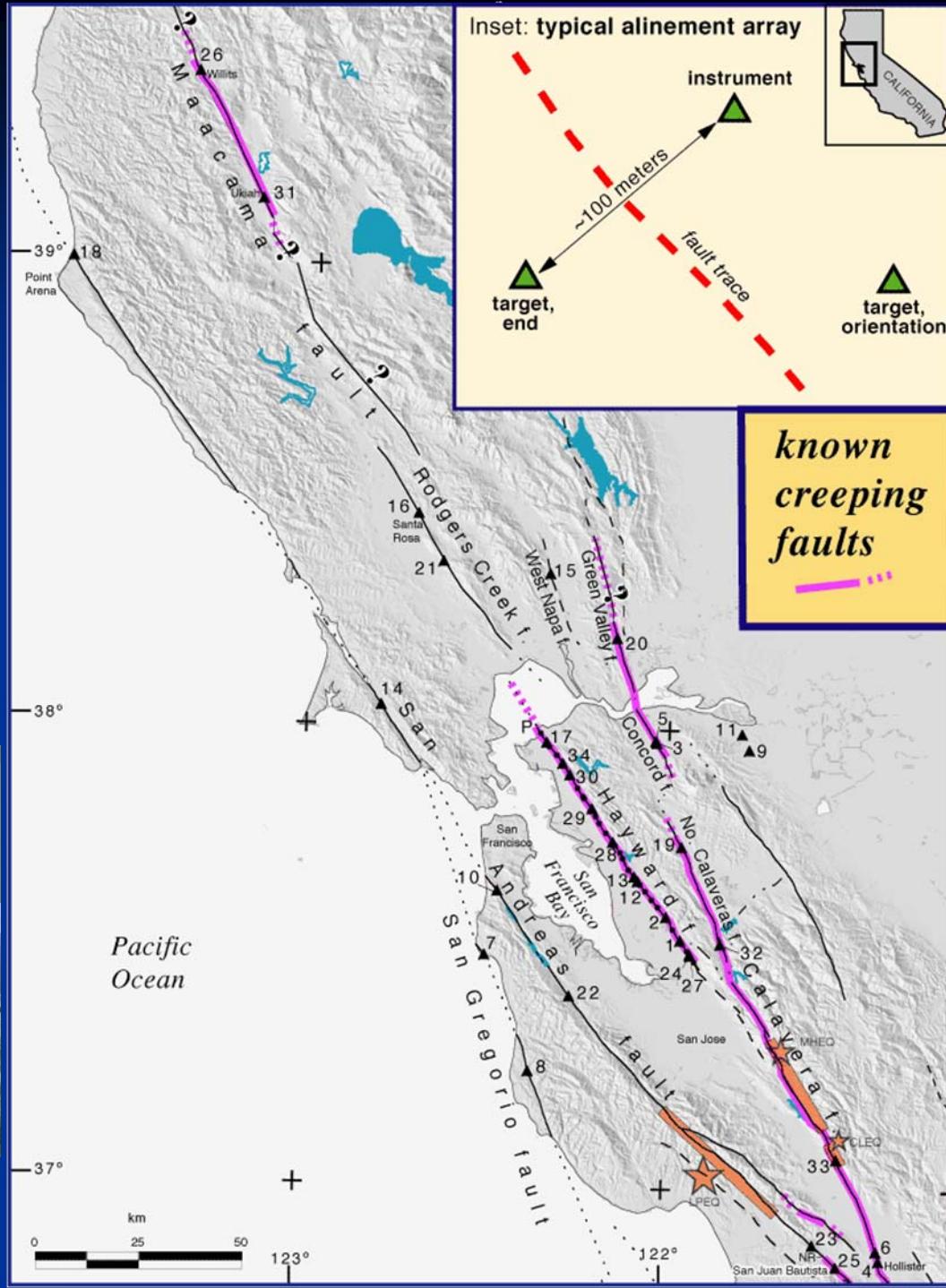
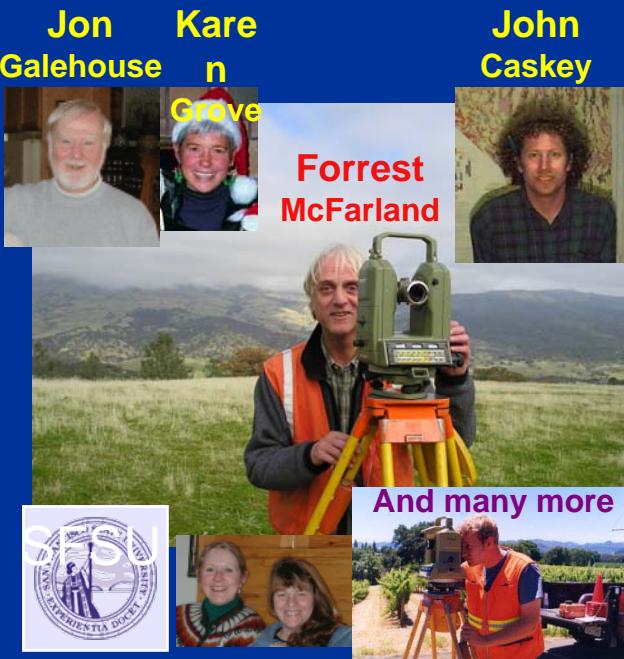


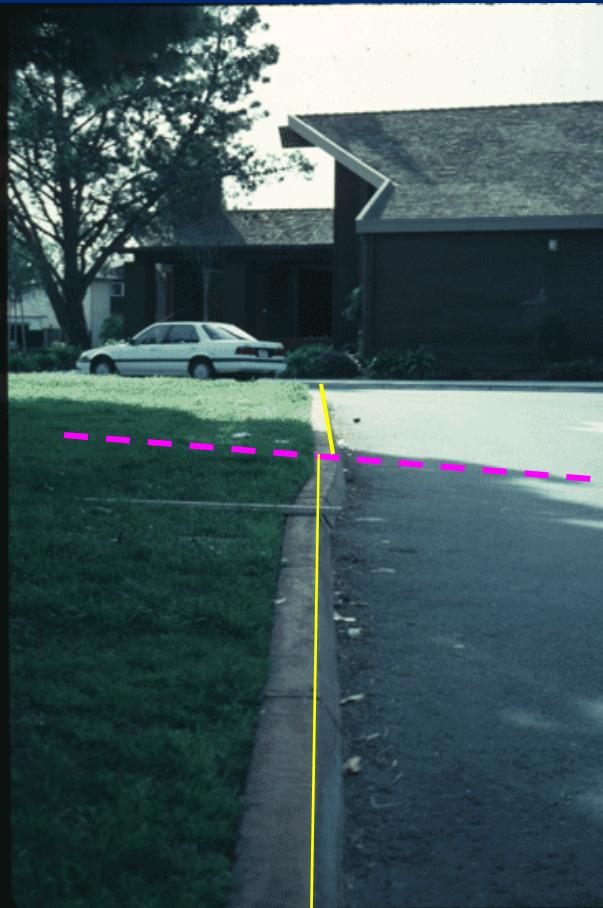
Monitoring Fault Creep on Alinelement Arrays in SF Bay Region



Alinelement Arrays SF Bay Region

Creep Effects Along Hayward Fault

RL* offset sandbox



Fremont Senior Center

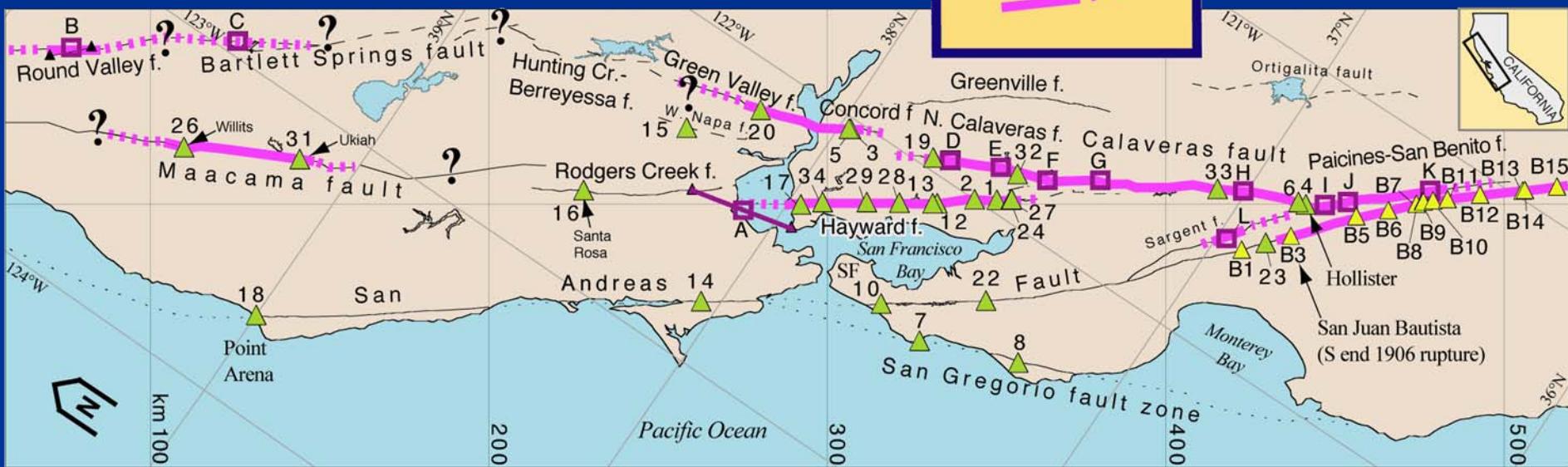
left-stepping en echelon cracks

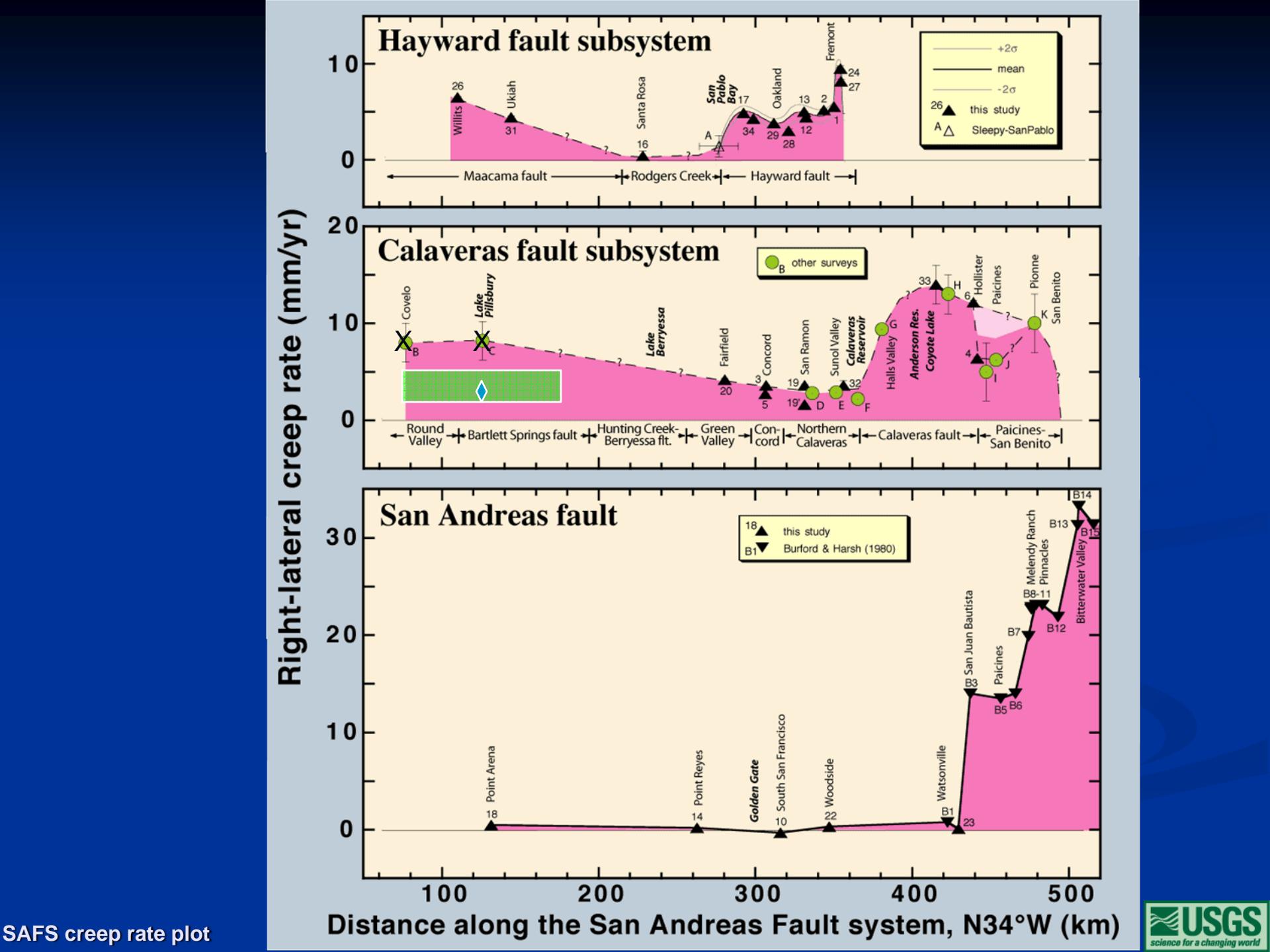


Gardenia Way, Fremont

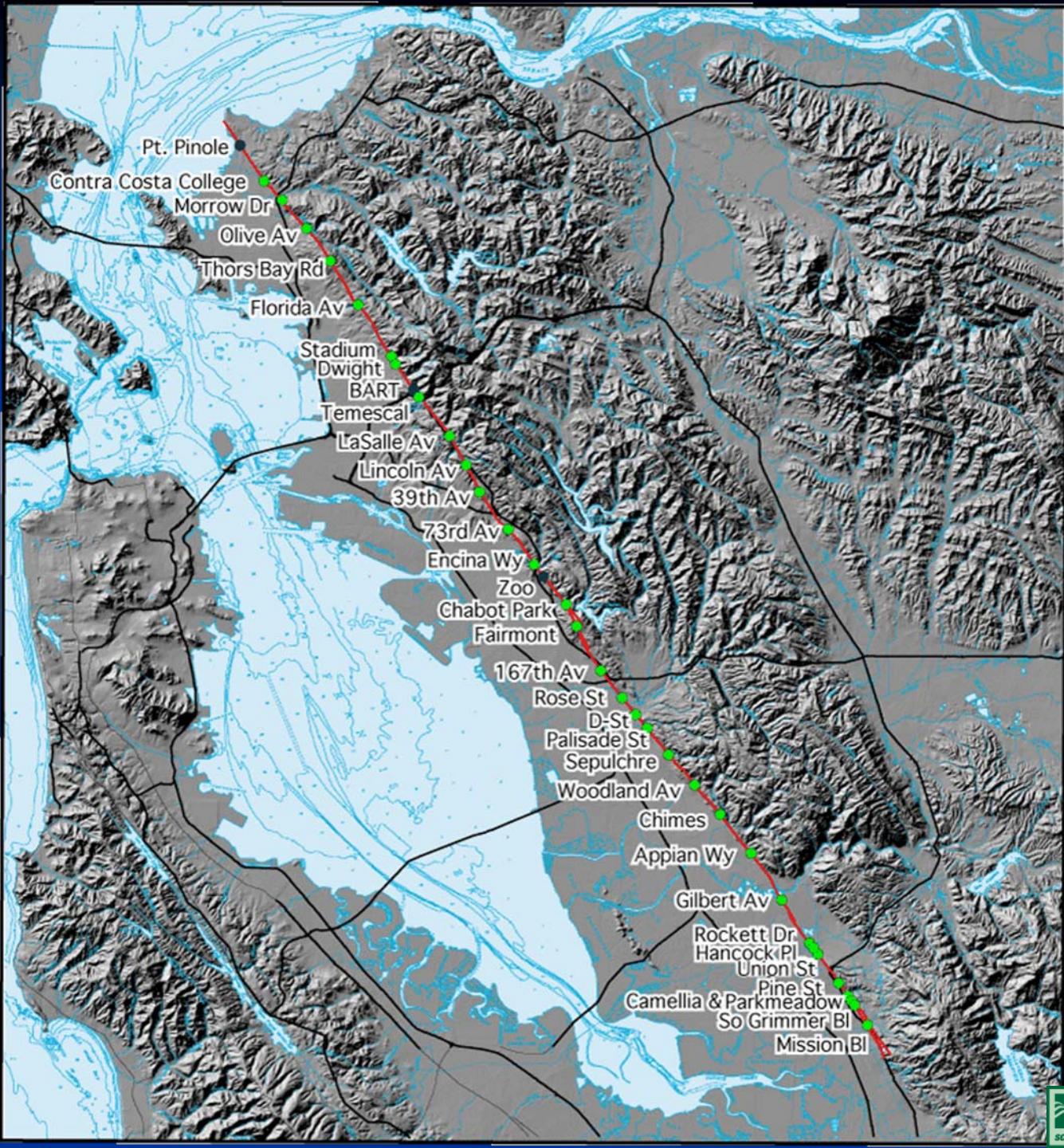
Monitoring Fault Creep in Northern California

*known
creeping
faults*



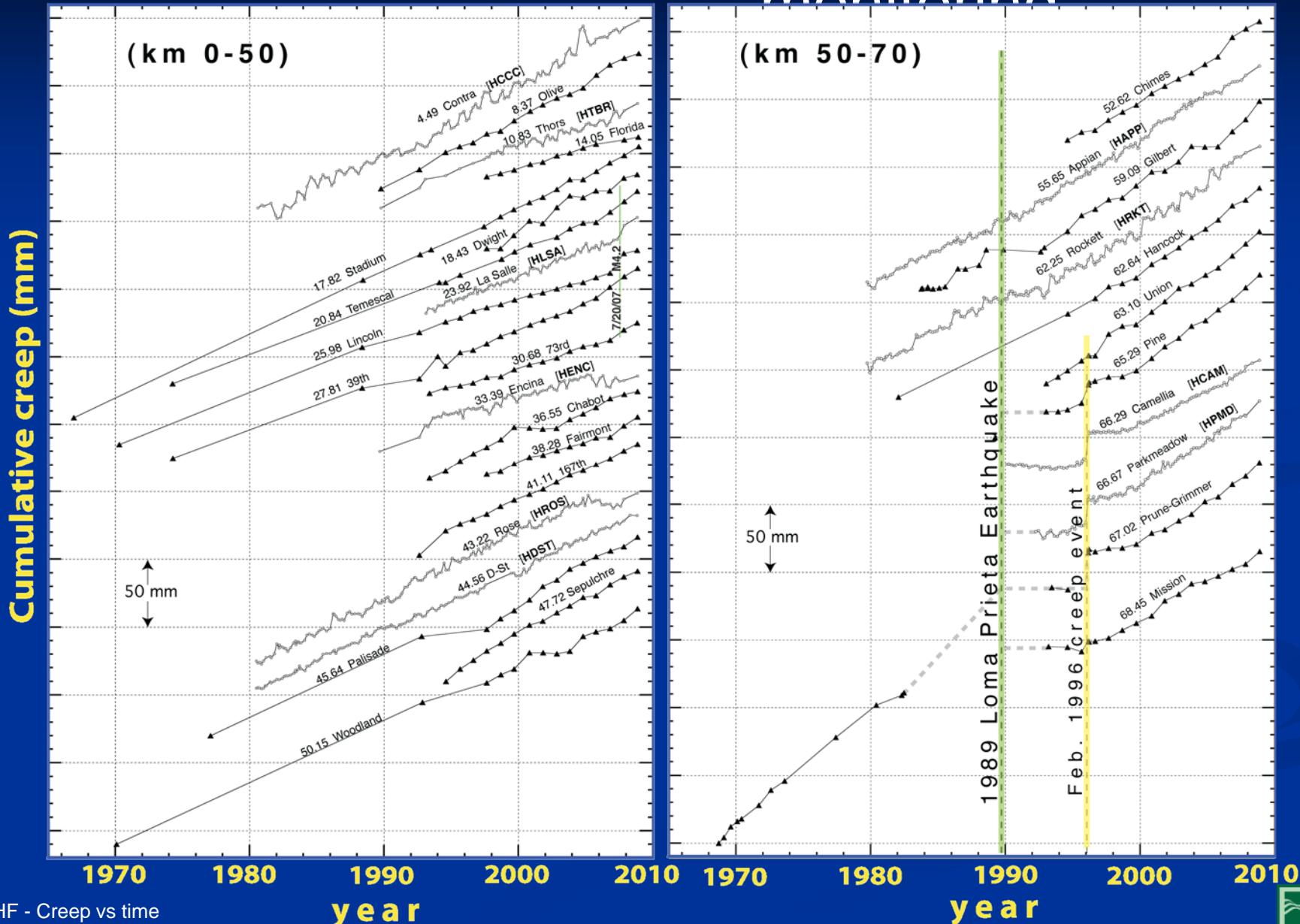


Alinement Arrays Along the Hayward Fault

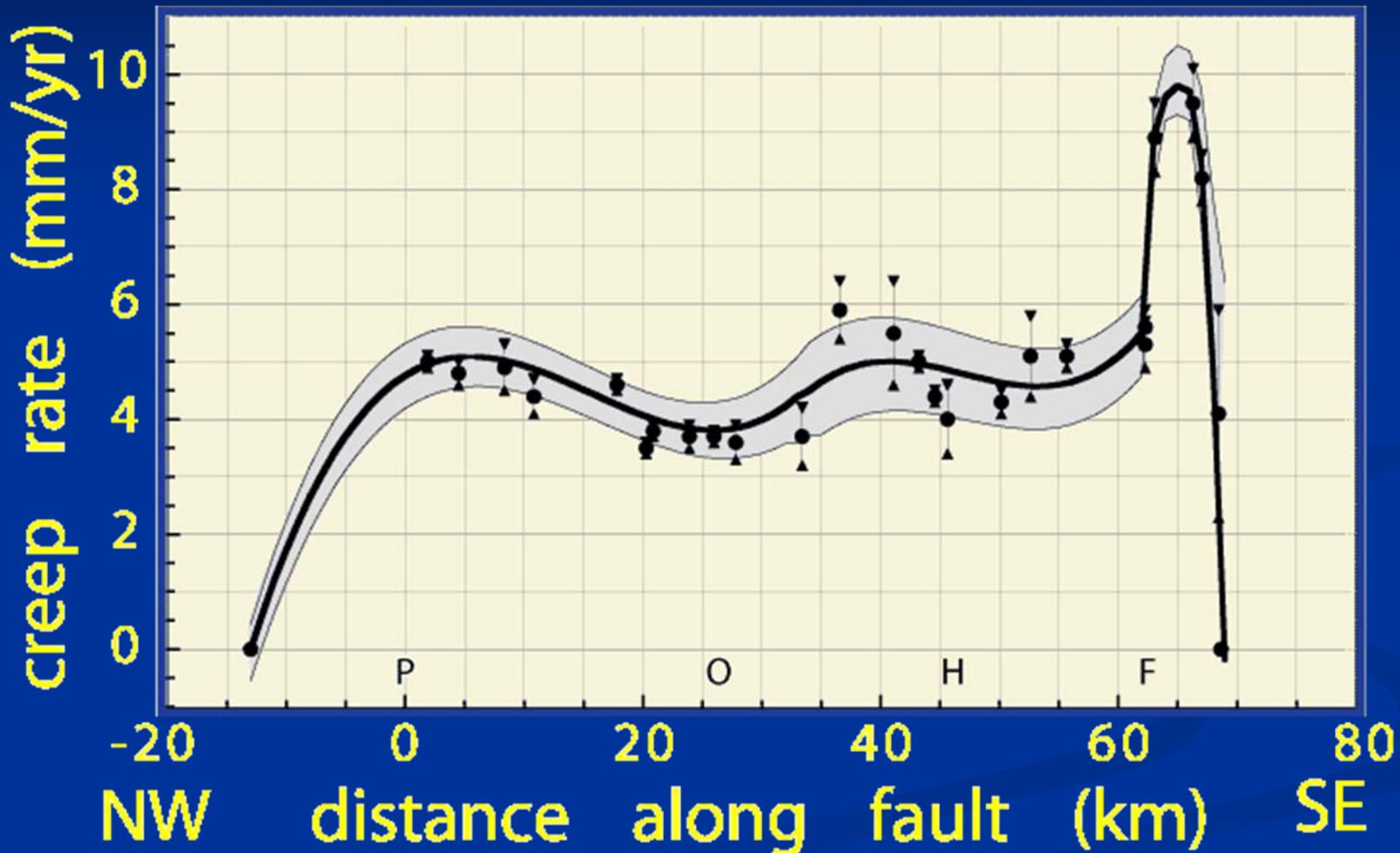


Hayward Fault

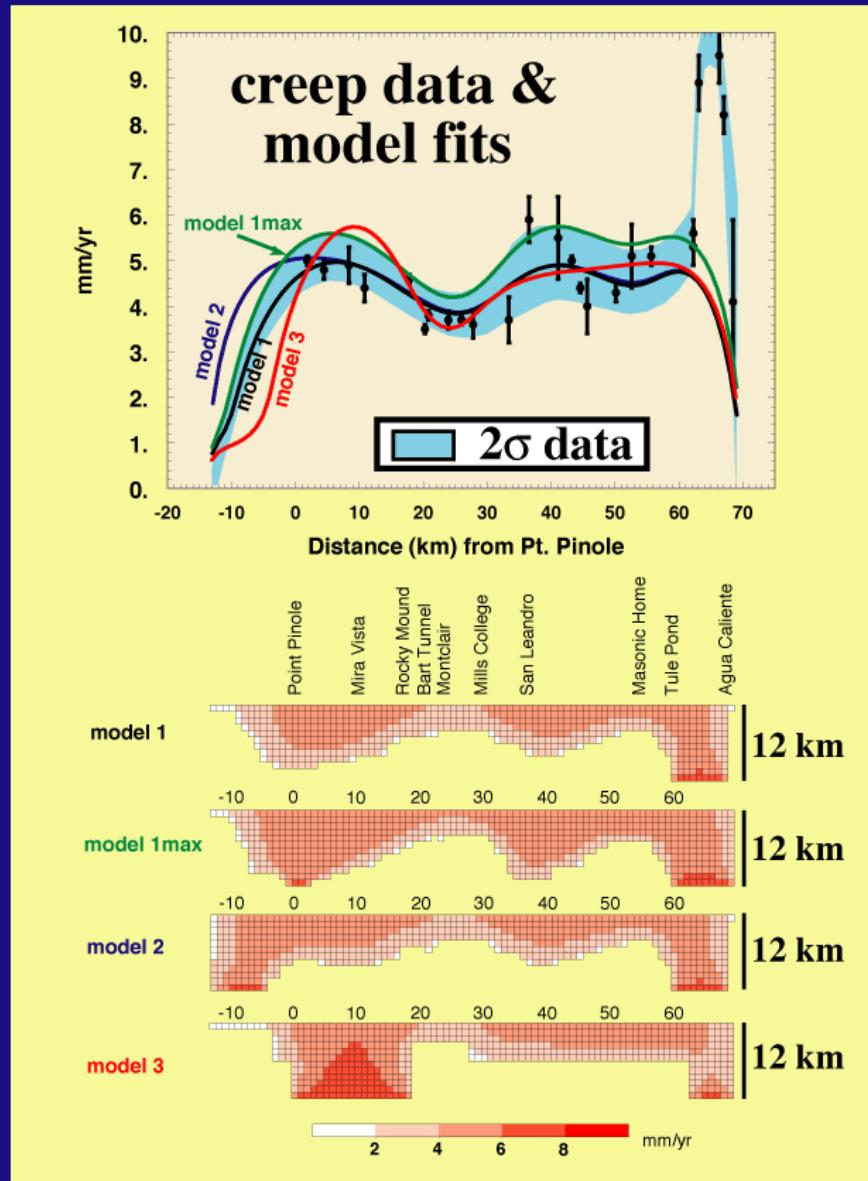
Long-term creep monitoring



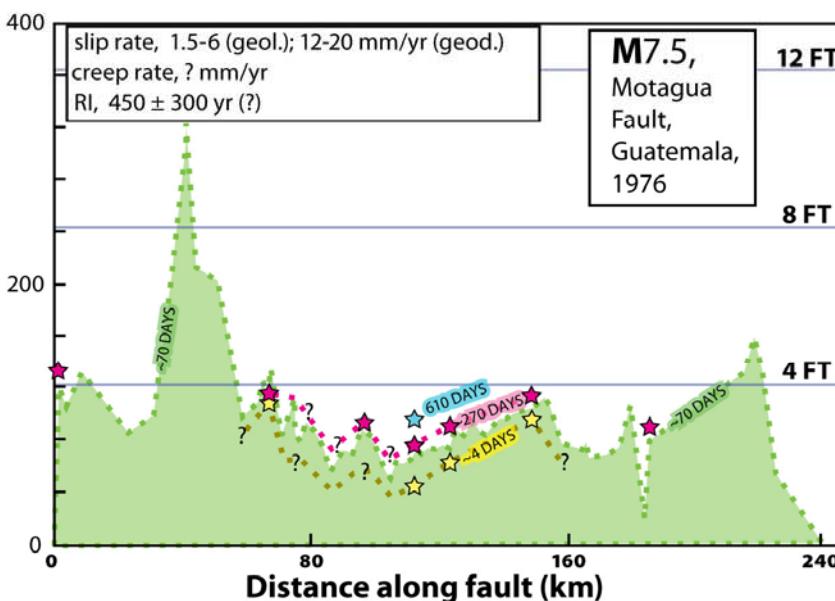
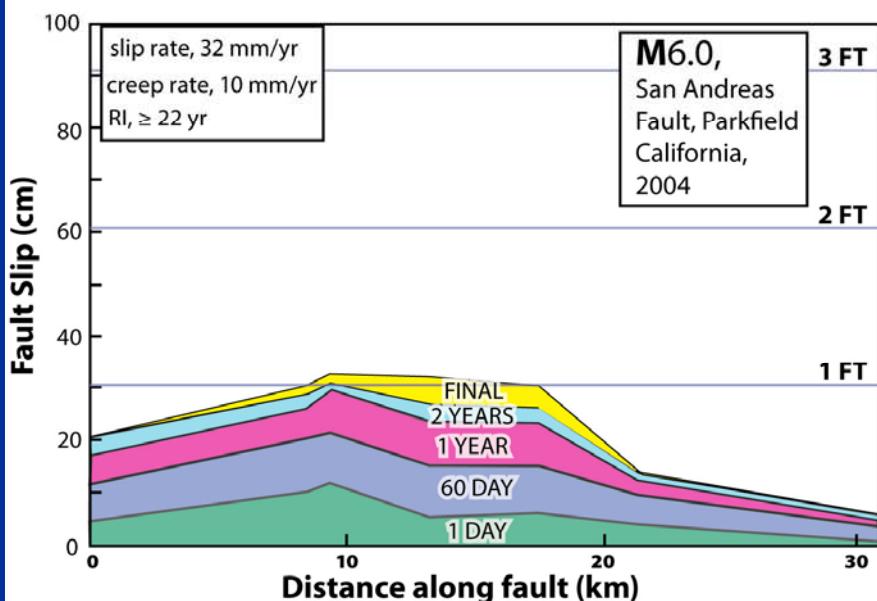
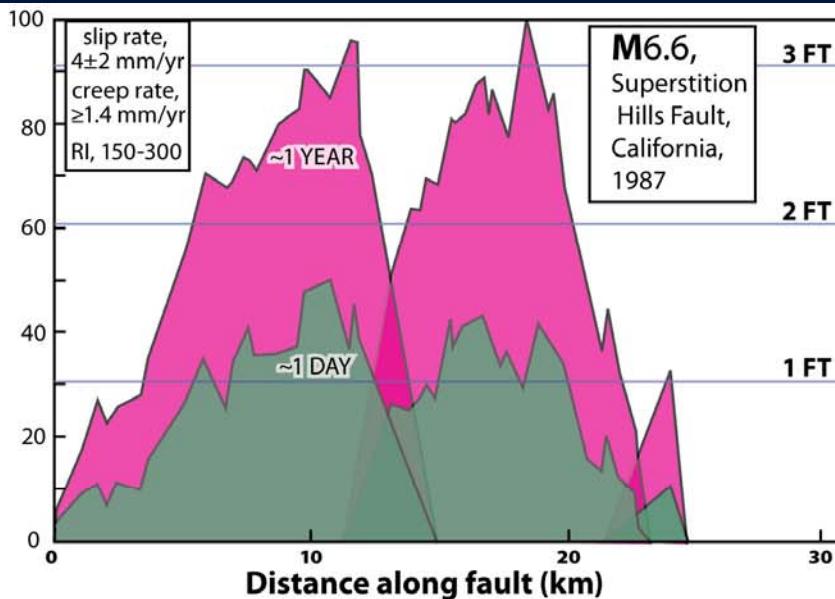
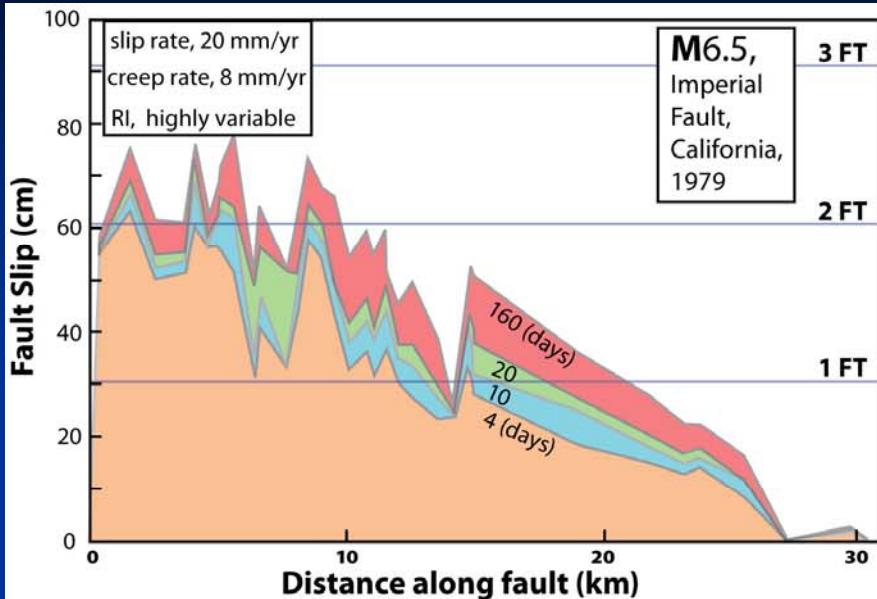
Best Constrained Long-term Creep Rates Along the Hayward Fault



Hayward Fault: modeling depth of creep



Afterslip along strike-slip creeping faults



Afterslip release rates versus magnitude

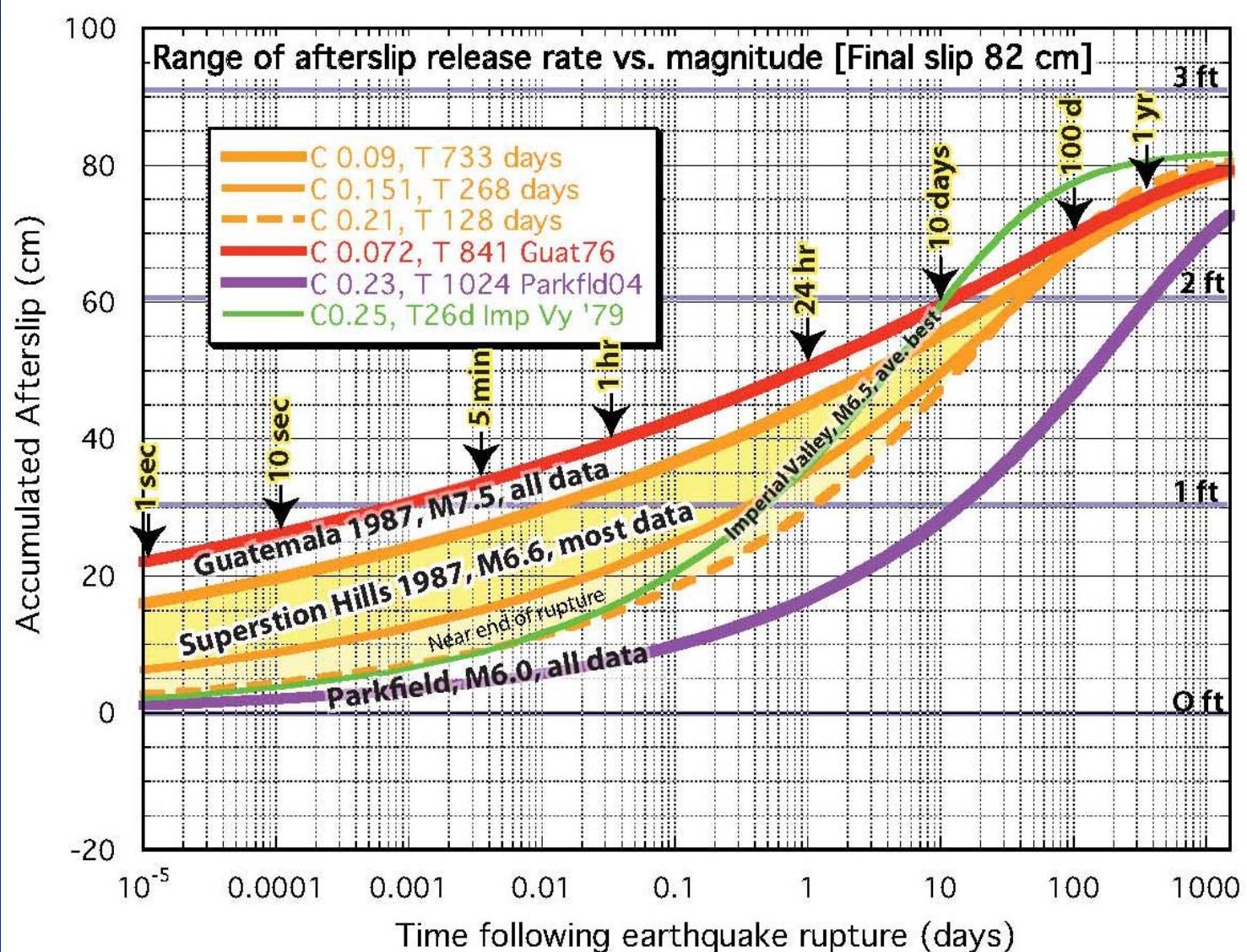
Afterslip inversion programs of Boatwright et al. (1989)

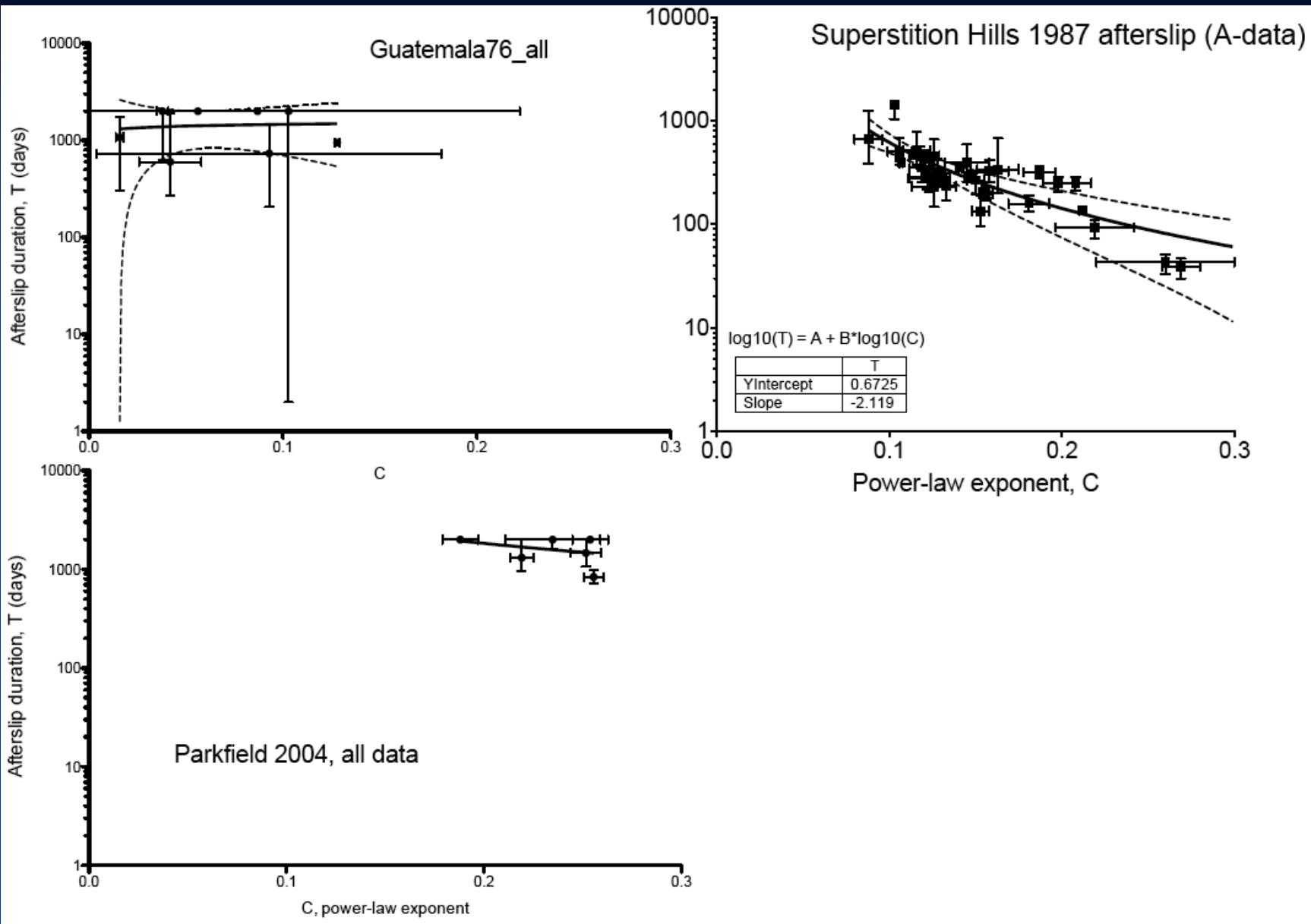
$$u(t) = u_f / (1 + T/t)^c$$

u_f = final slip (cm)

c = power-law exponent

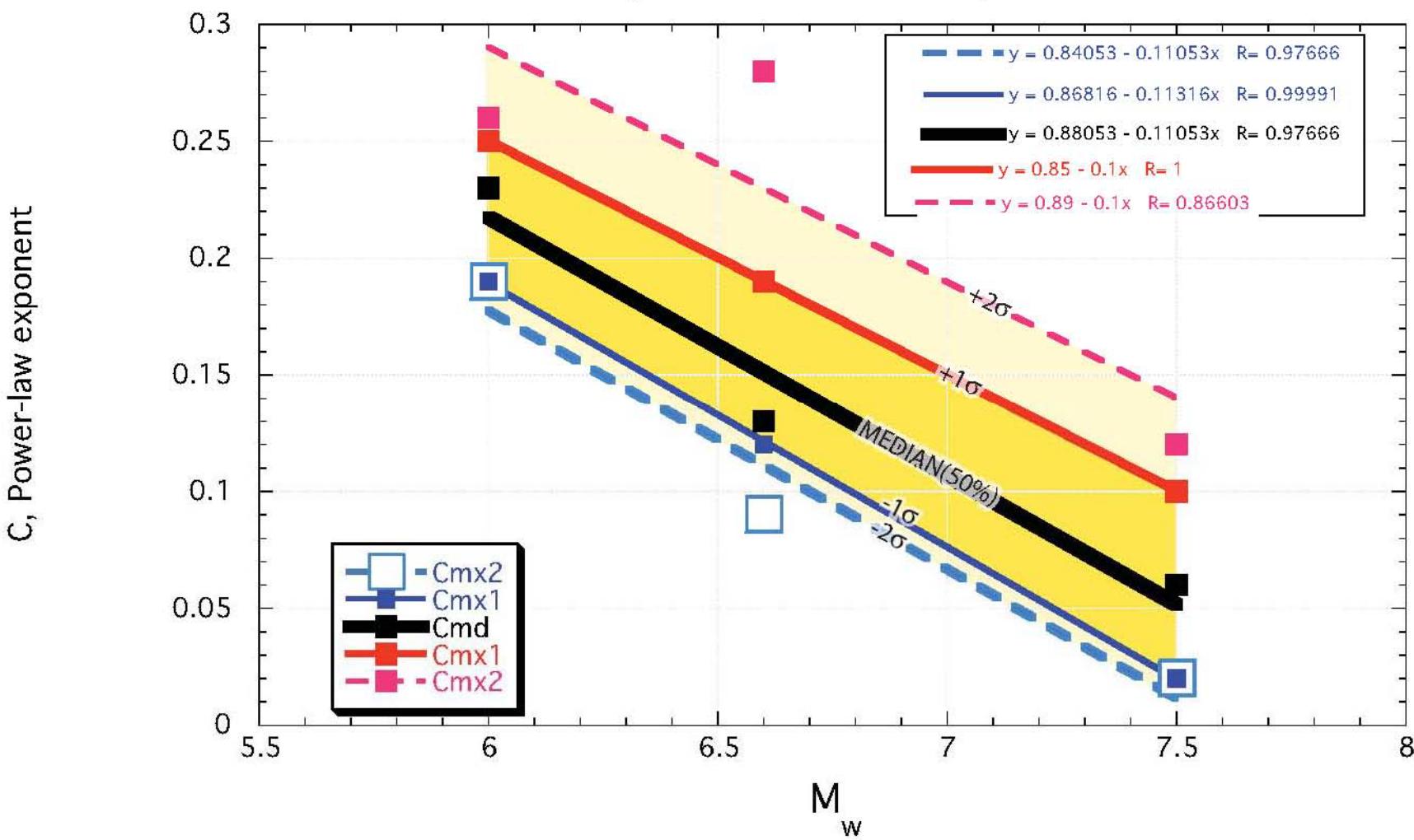
T = duration (days)

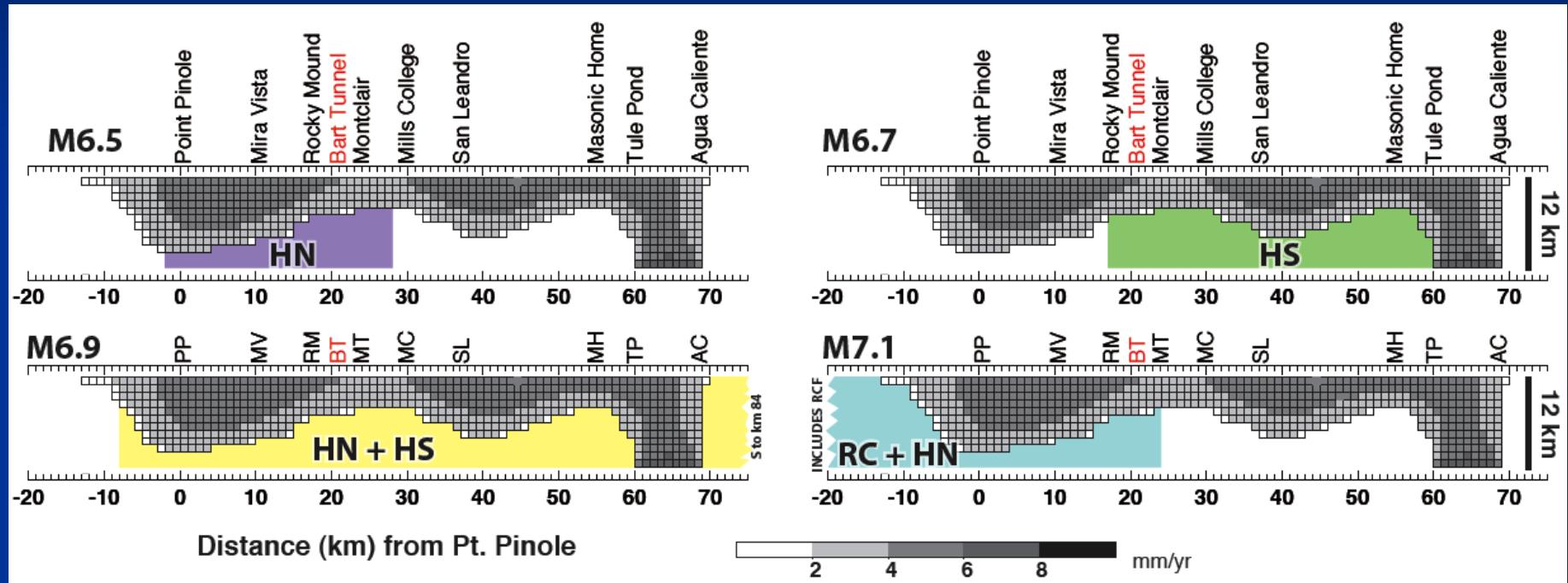




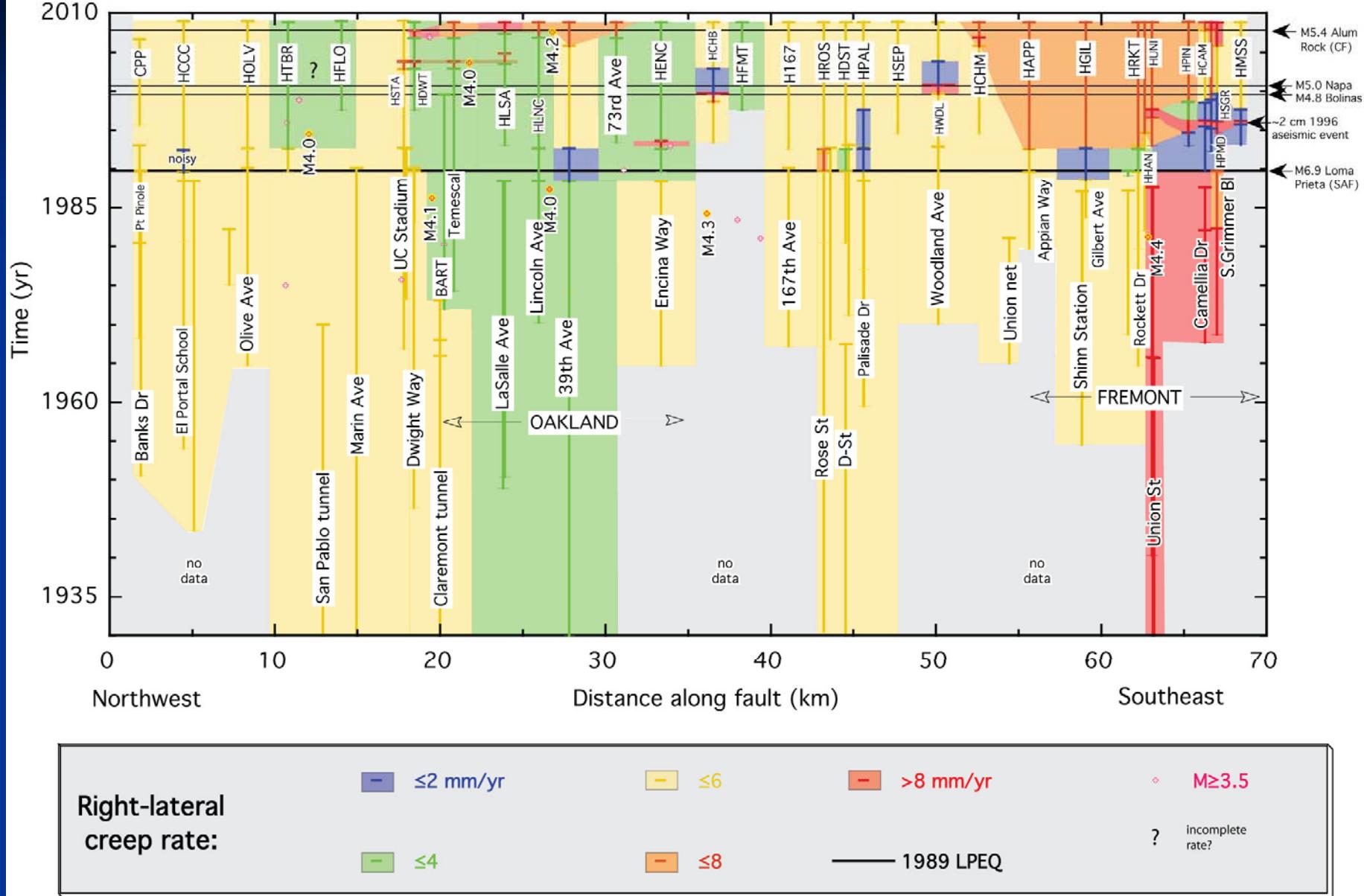
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Magnitude vs Power-law exponent





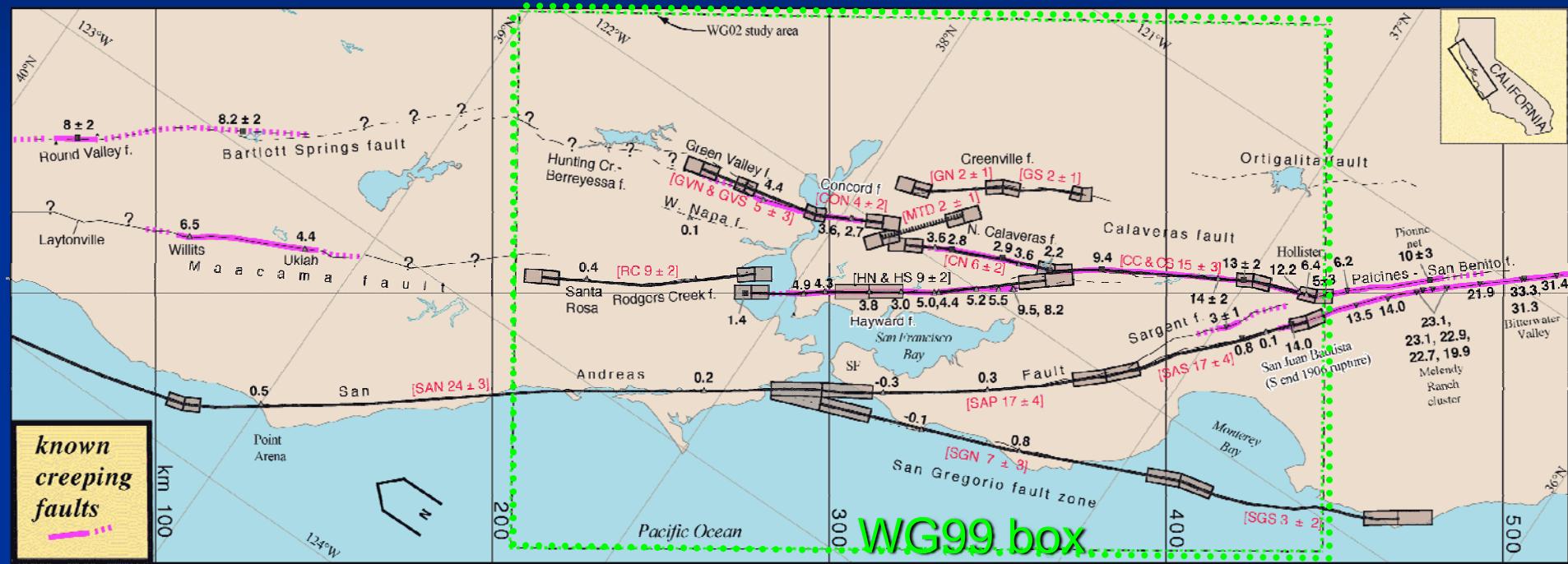
Creep rates along the Hayward Fault changing through time



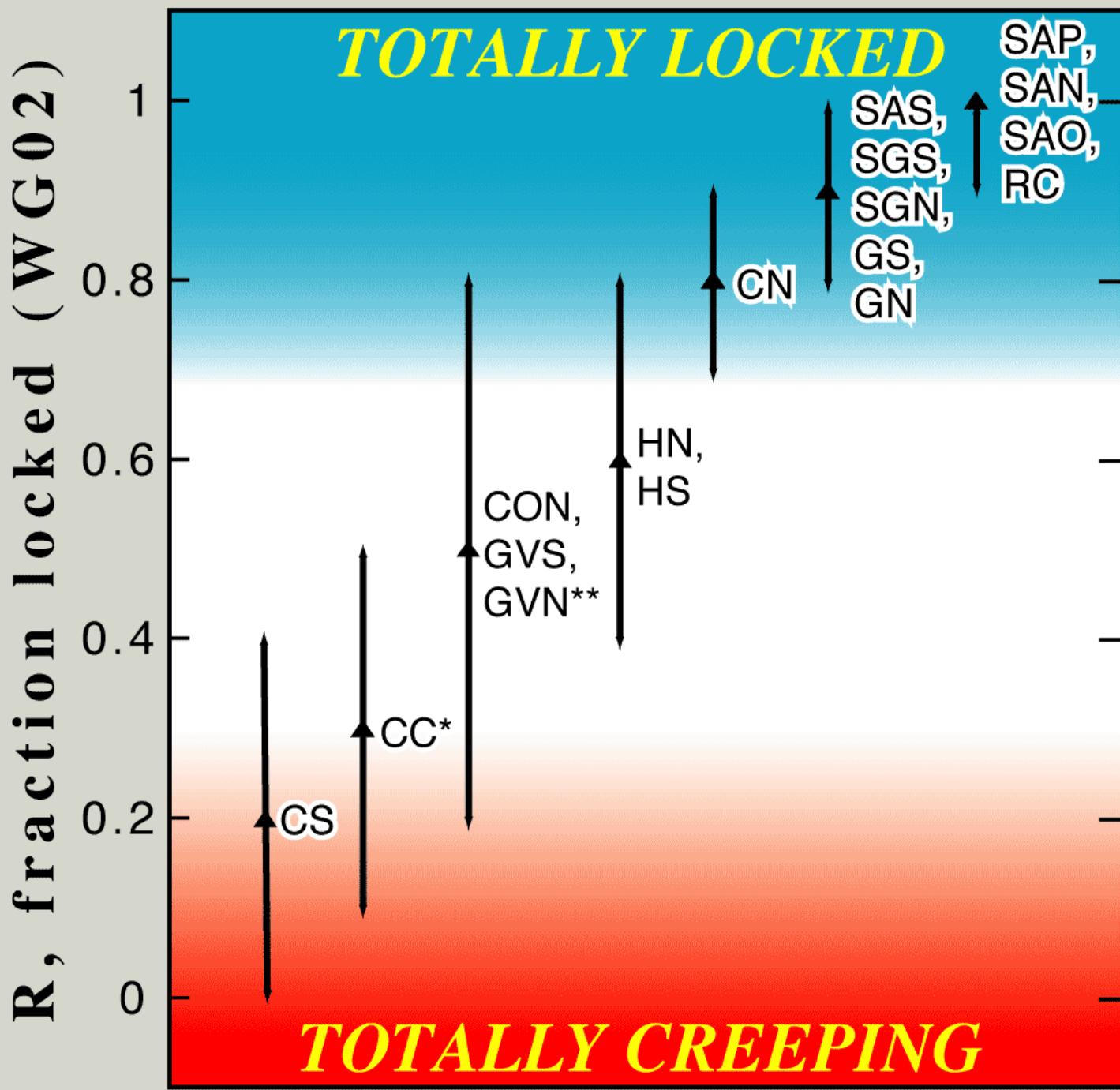
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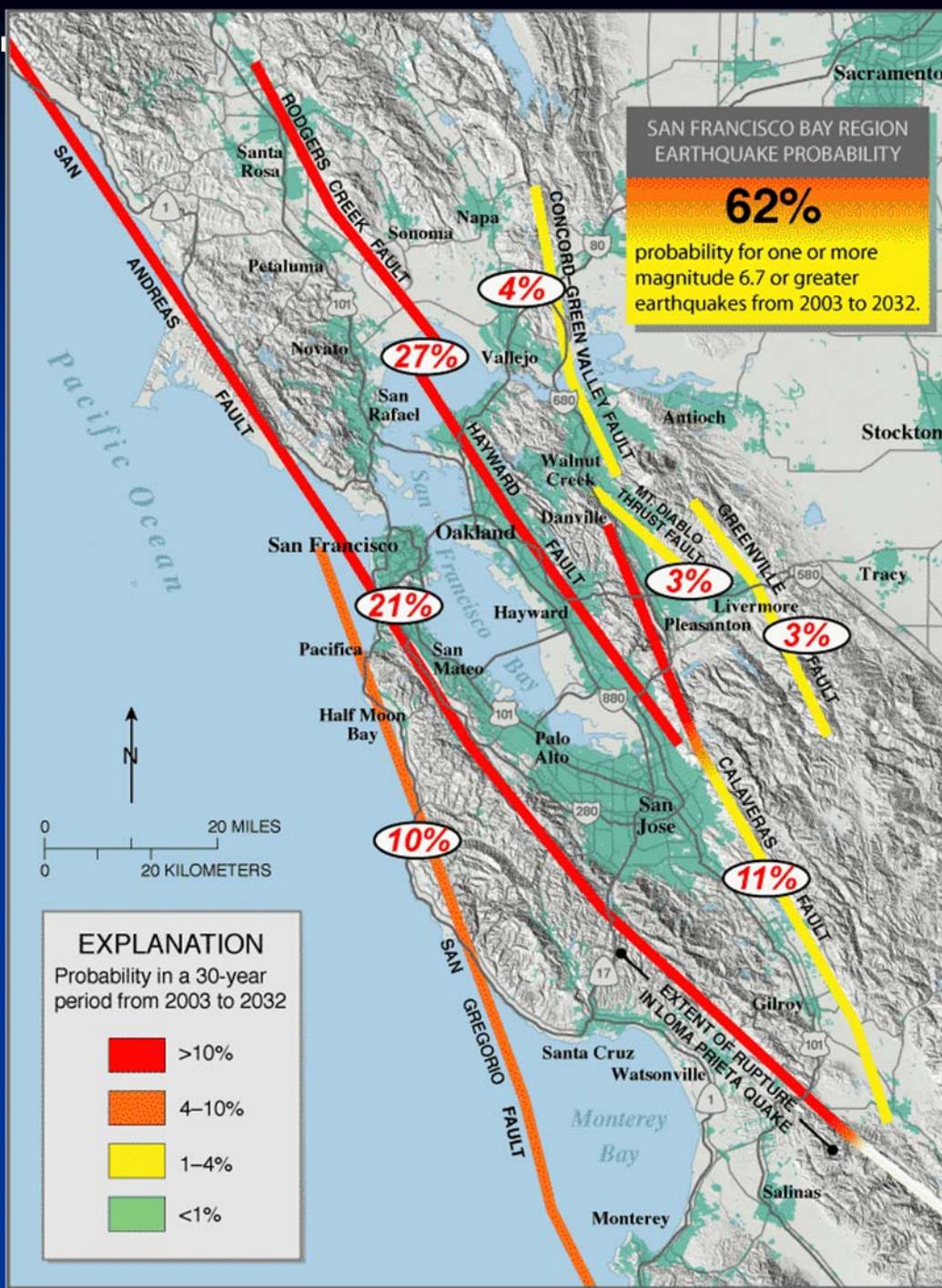
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Geologic Slip Rates vs. Creep Rates

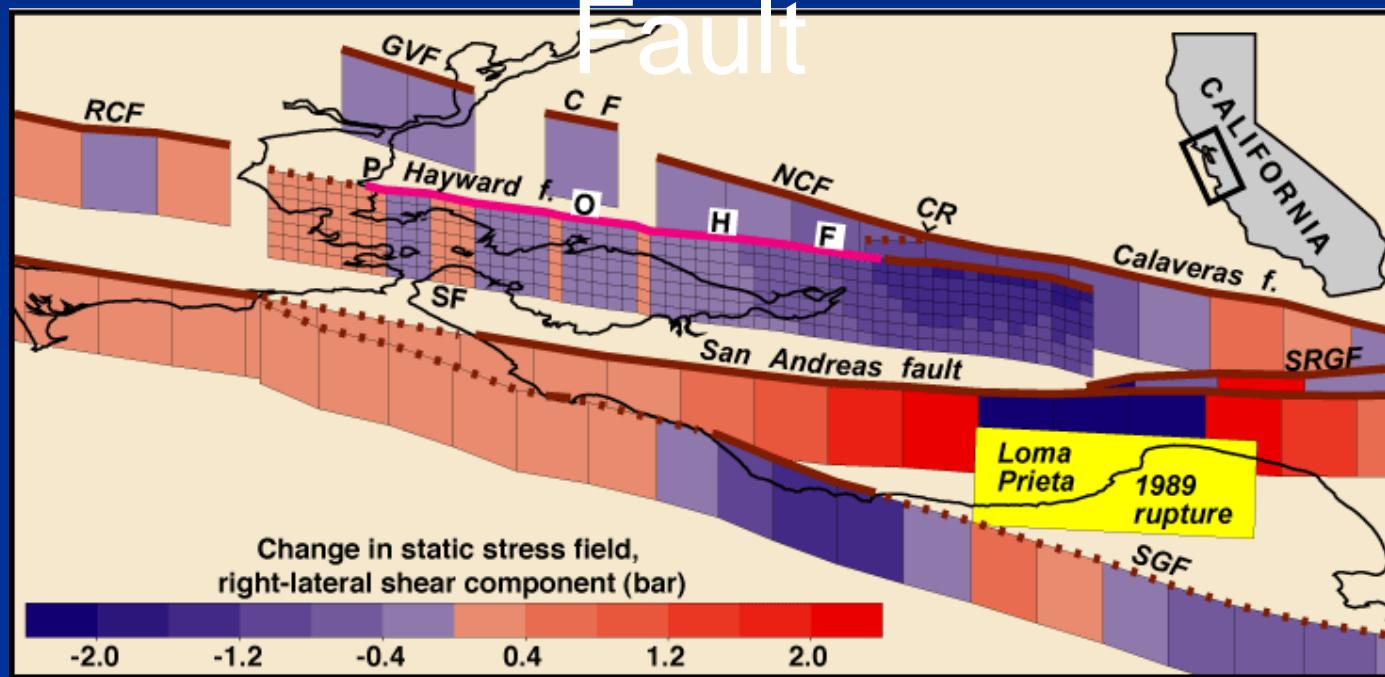


San Andreas Fault System

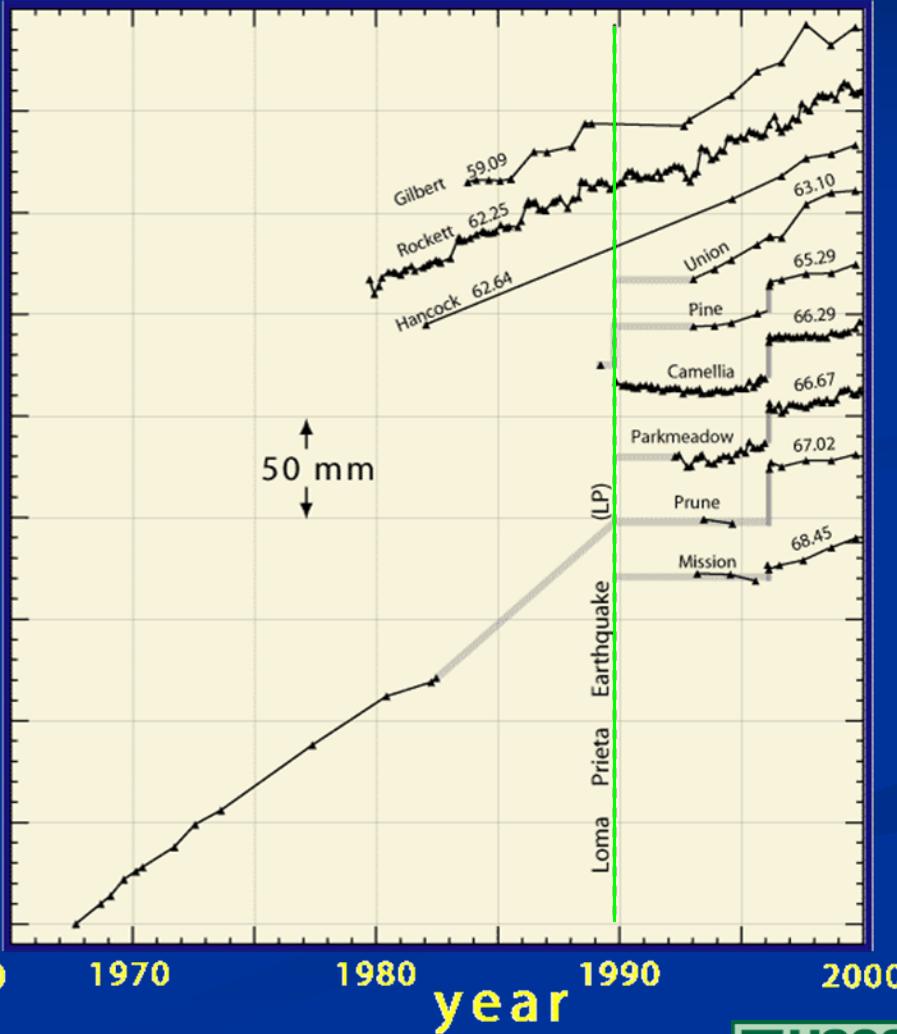
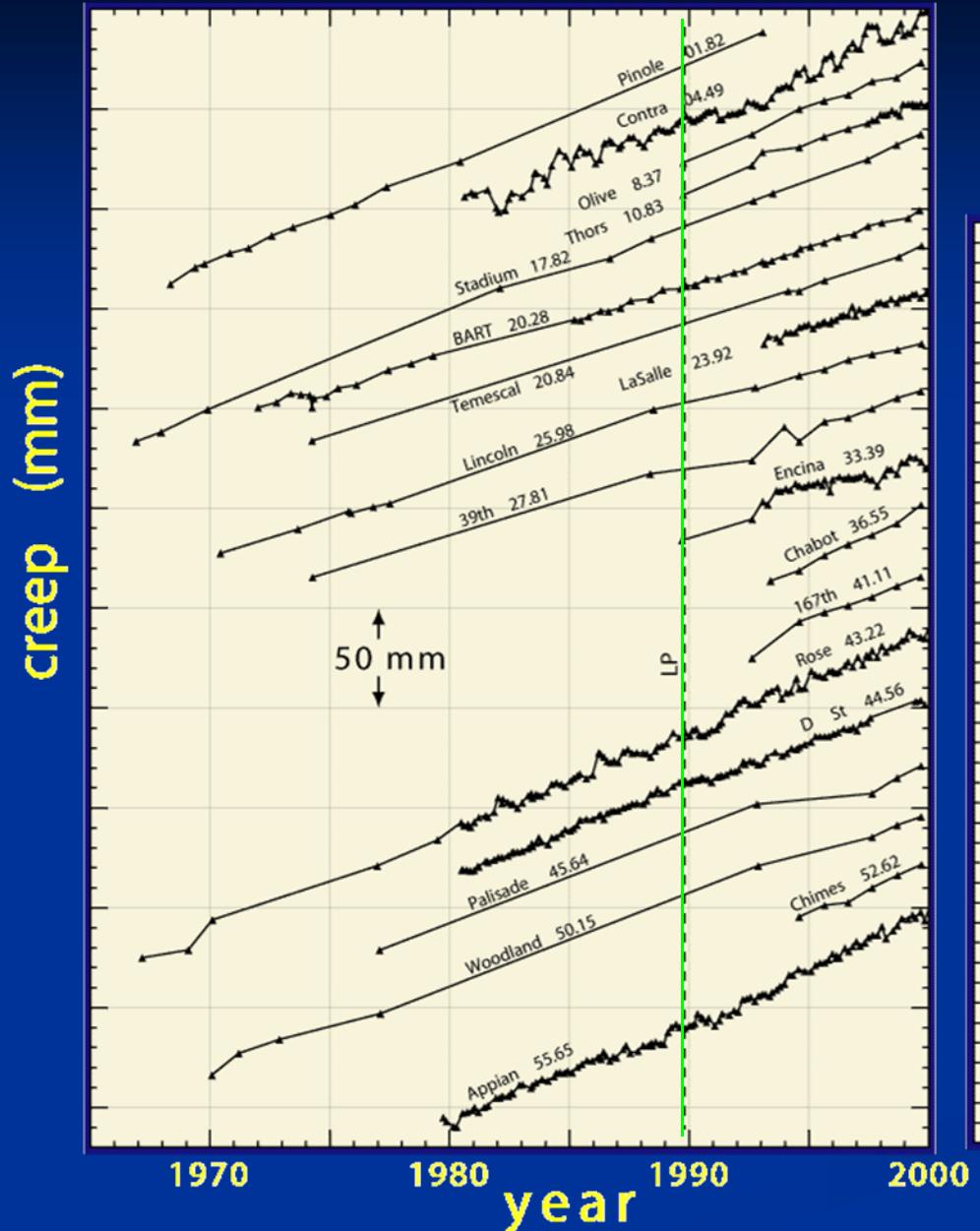




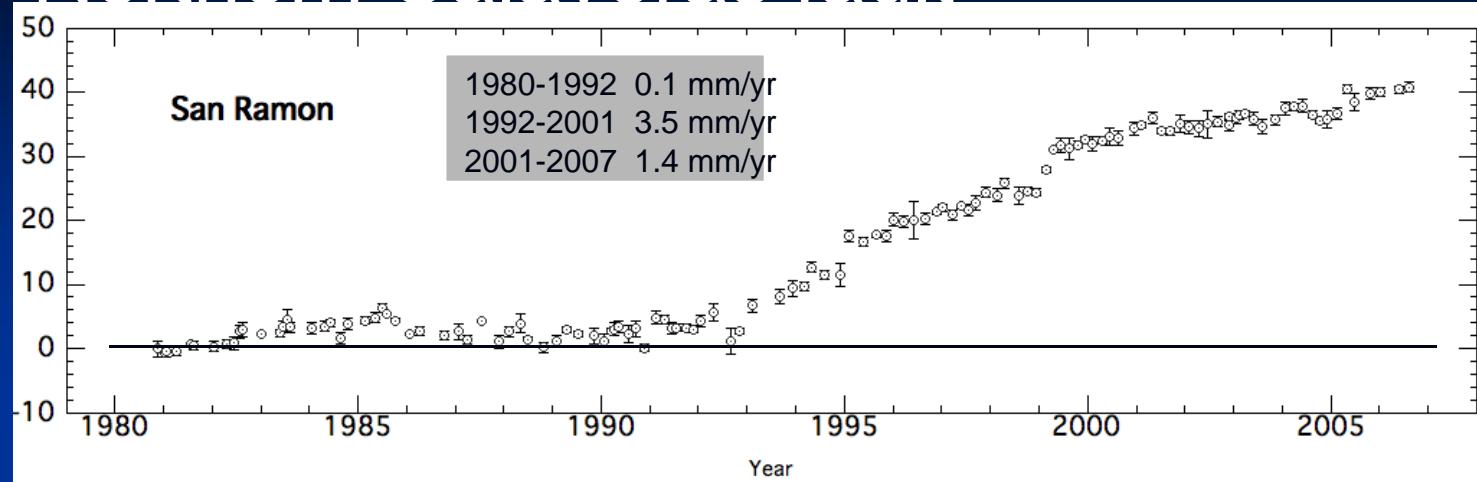
Effect of Stress Changes from 1989 Loma Prieta Earthquake on Creep Along the Hayward Fault



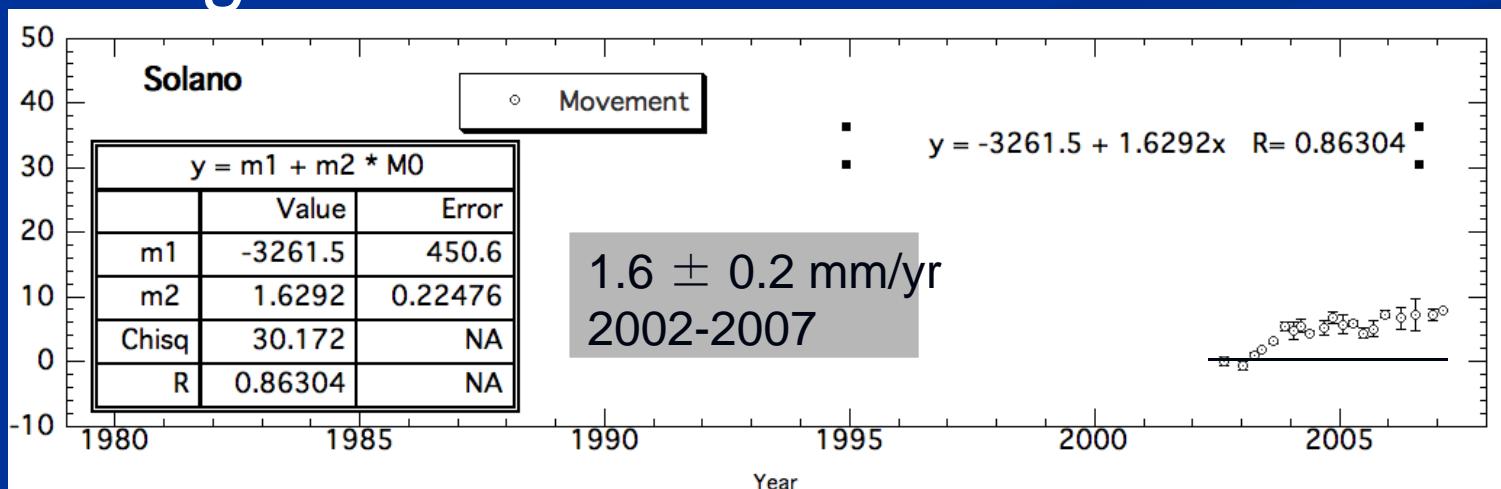
Hayward Fault Long-term creep monitoring



Northern Calaveras fault

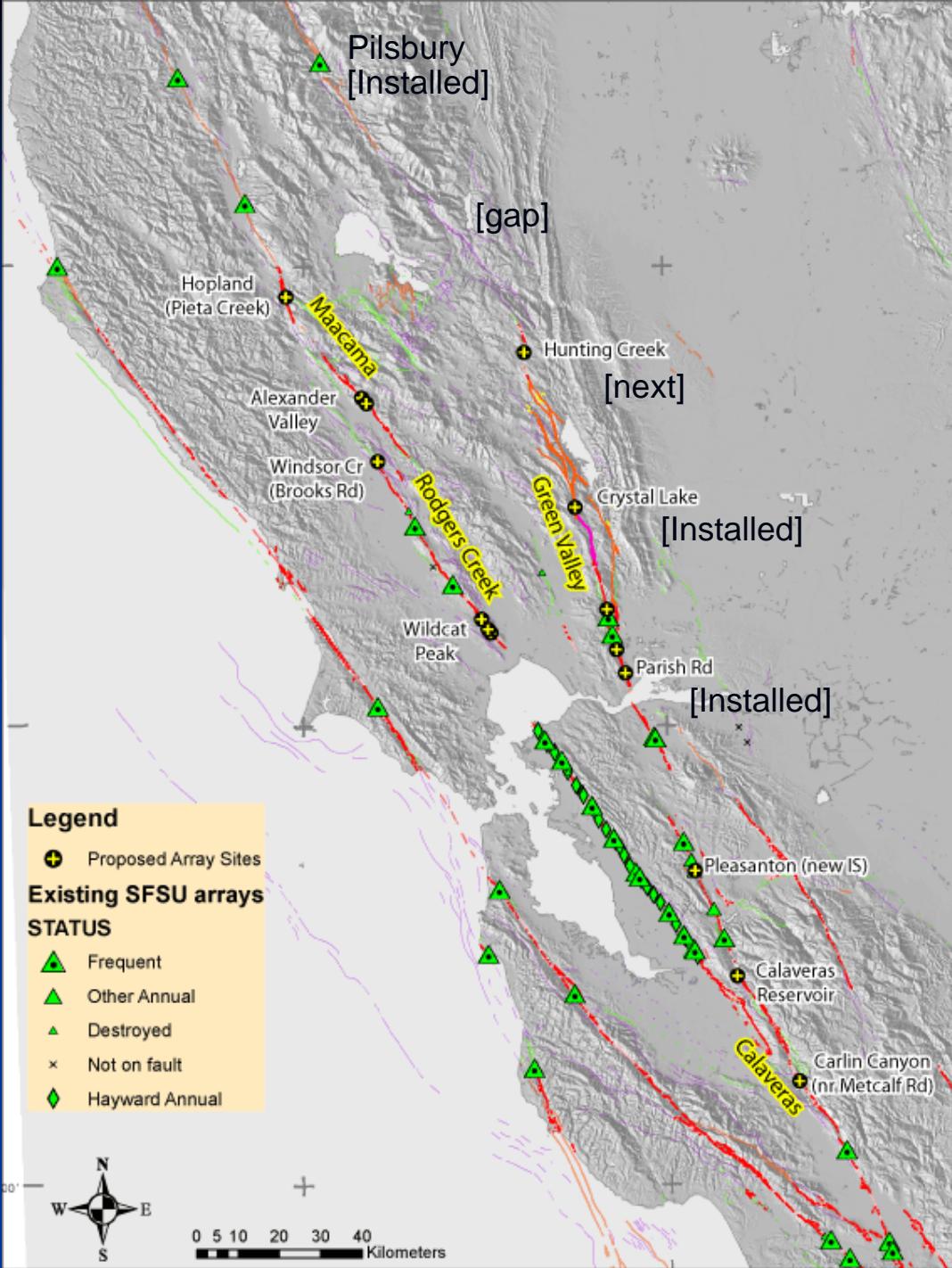


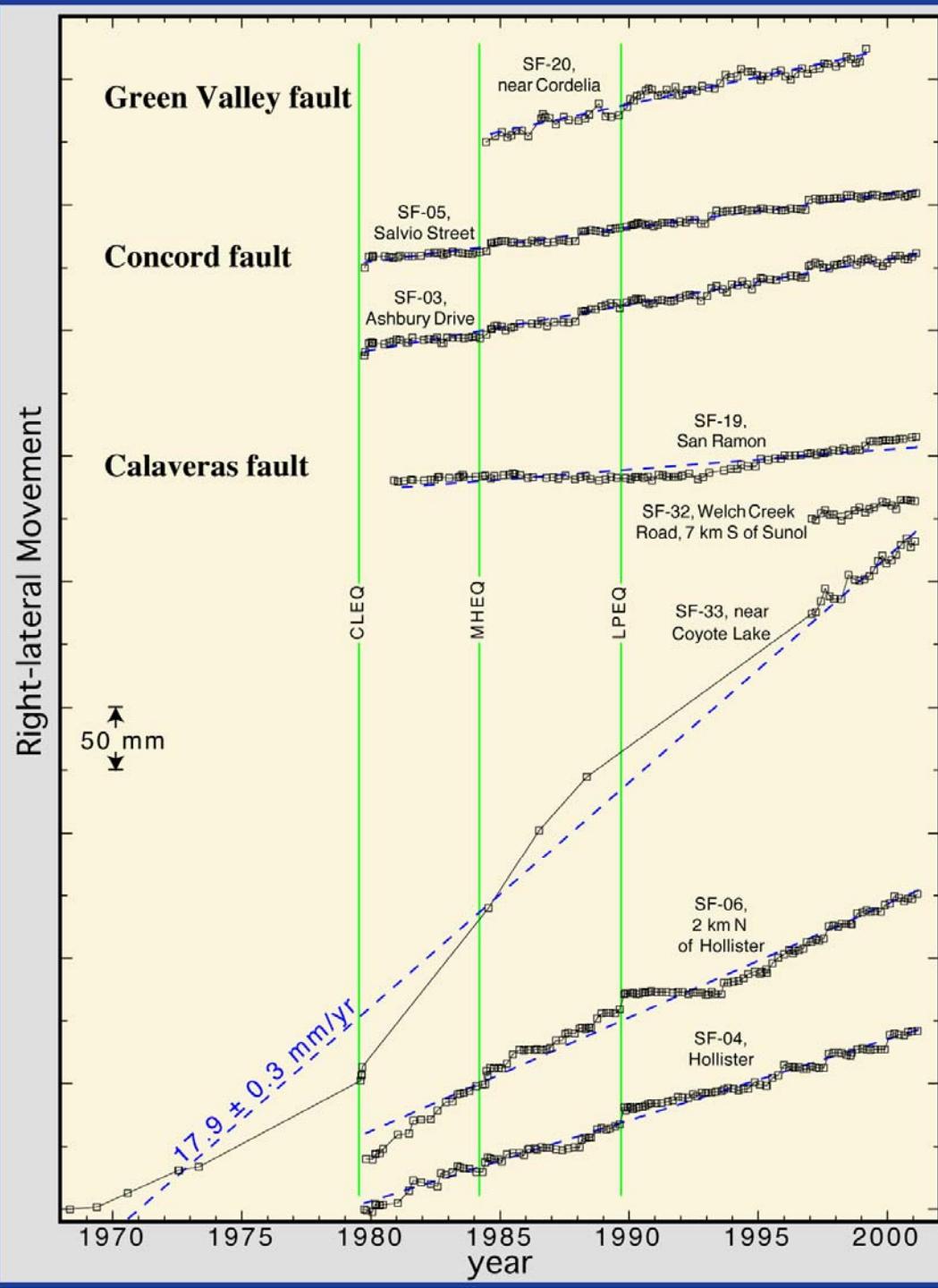
Rodgers Creek fault [Santa Rosa]



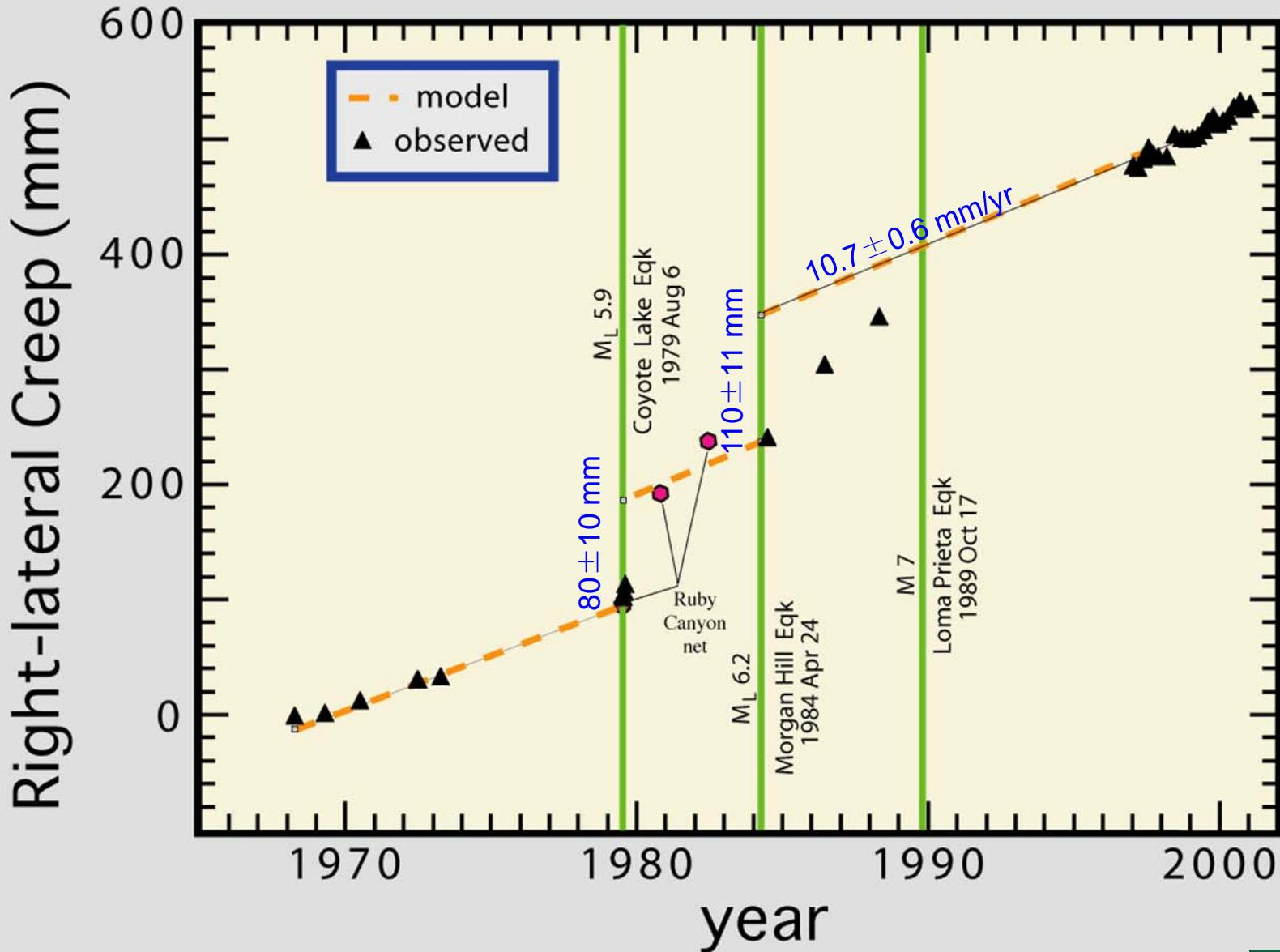
Rodgers Cr Flt/
San Ramon
slowing?

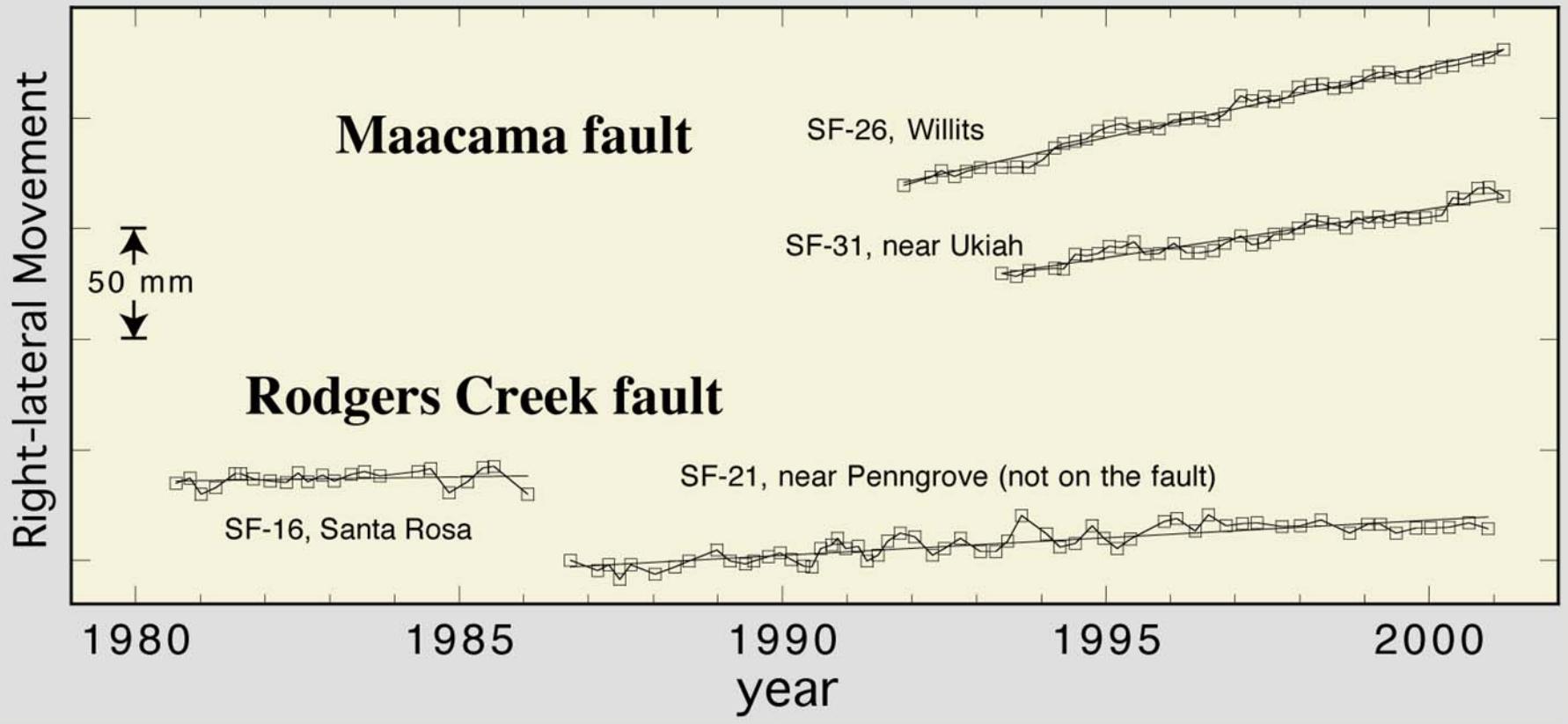
Future Arrays?





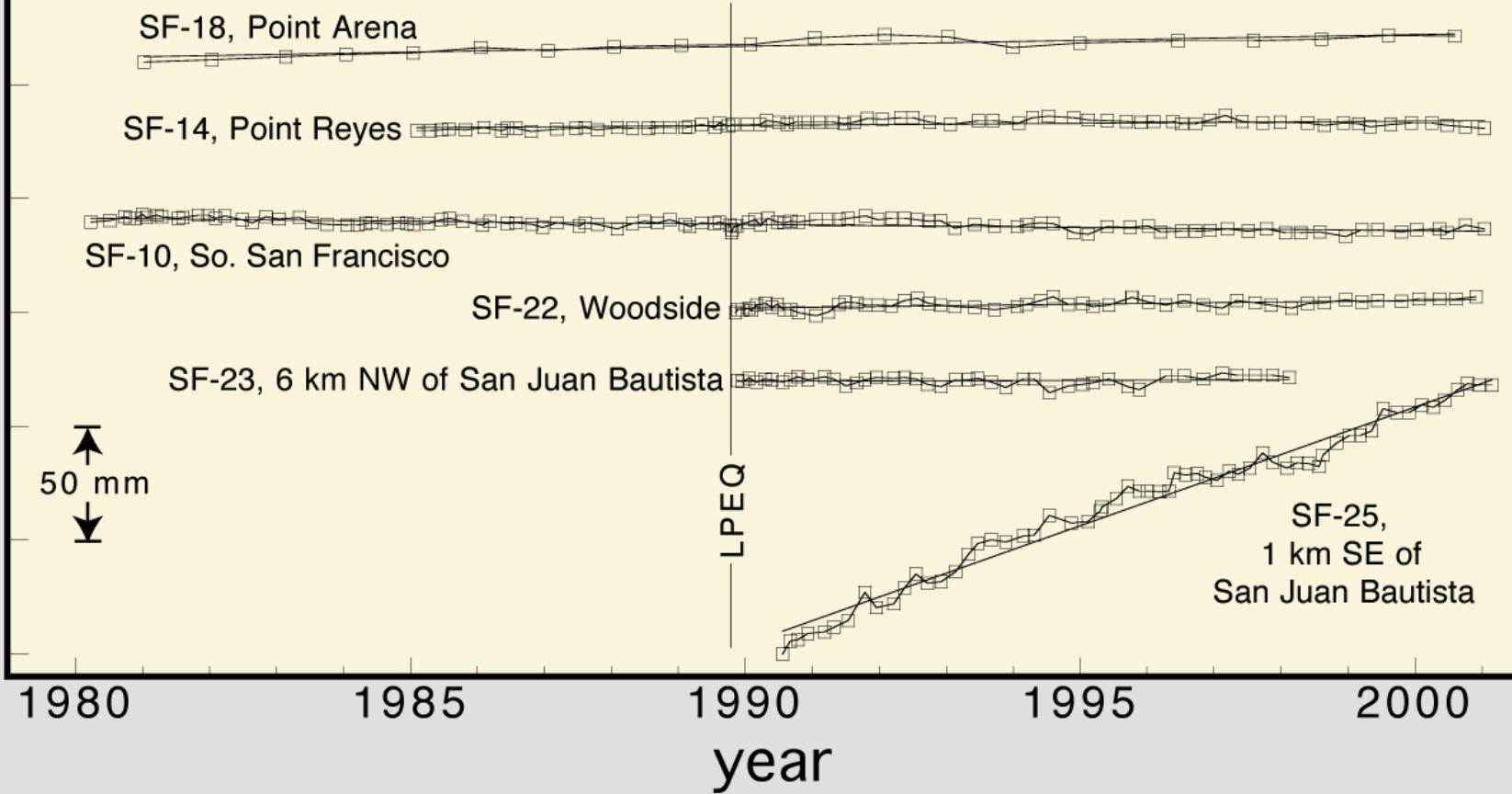
Coyote Lake Array, Central Calaveras



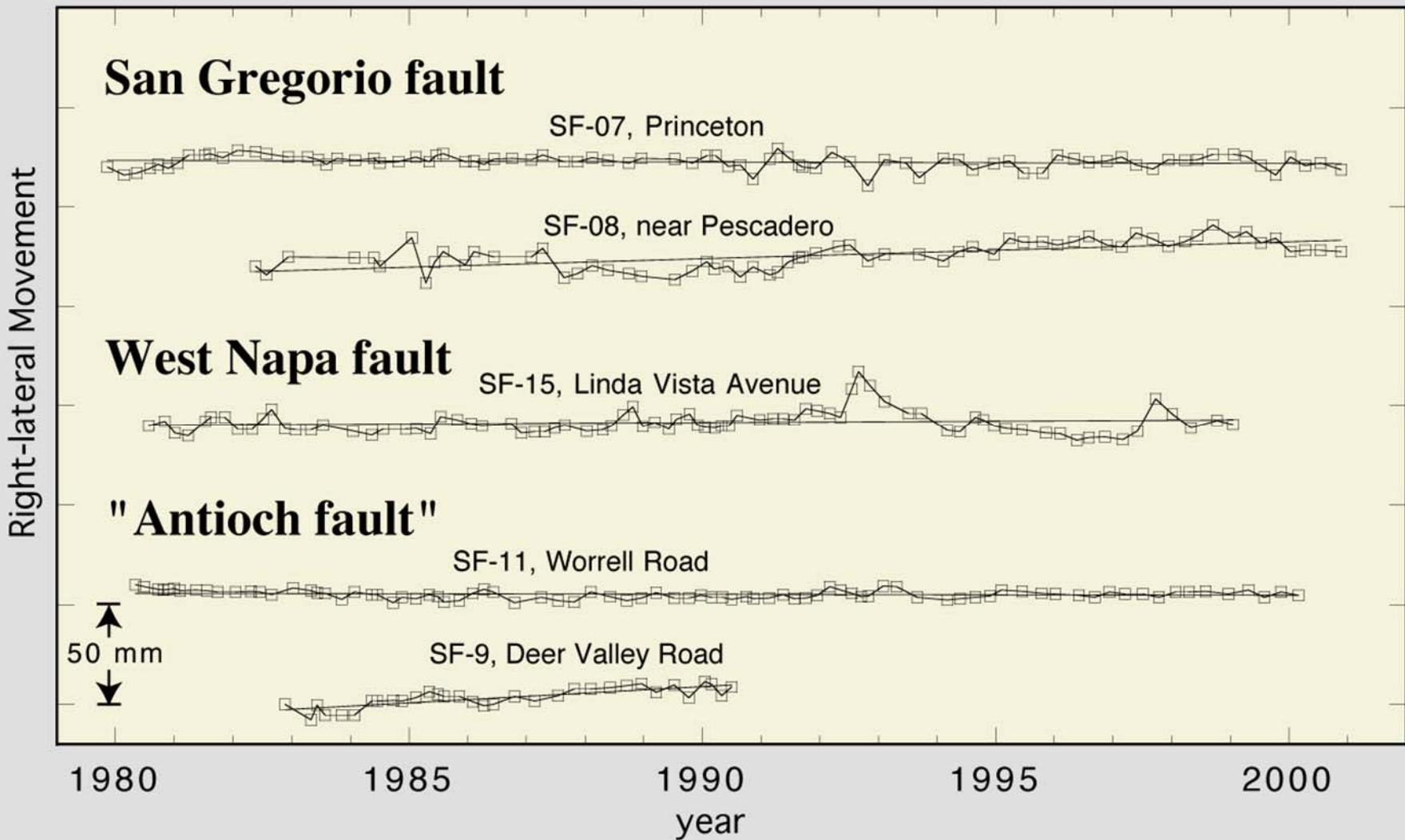


Right-lateral Movement

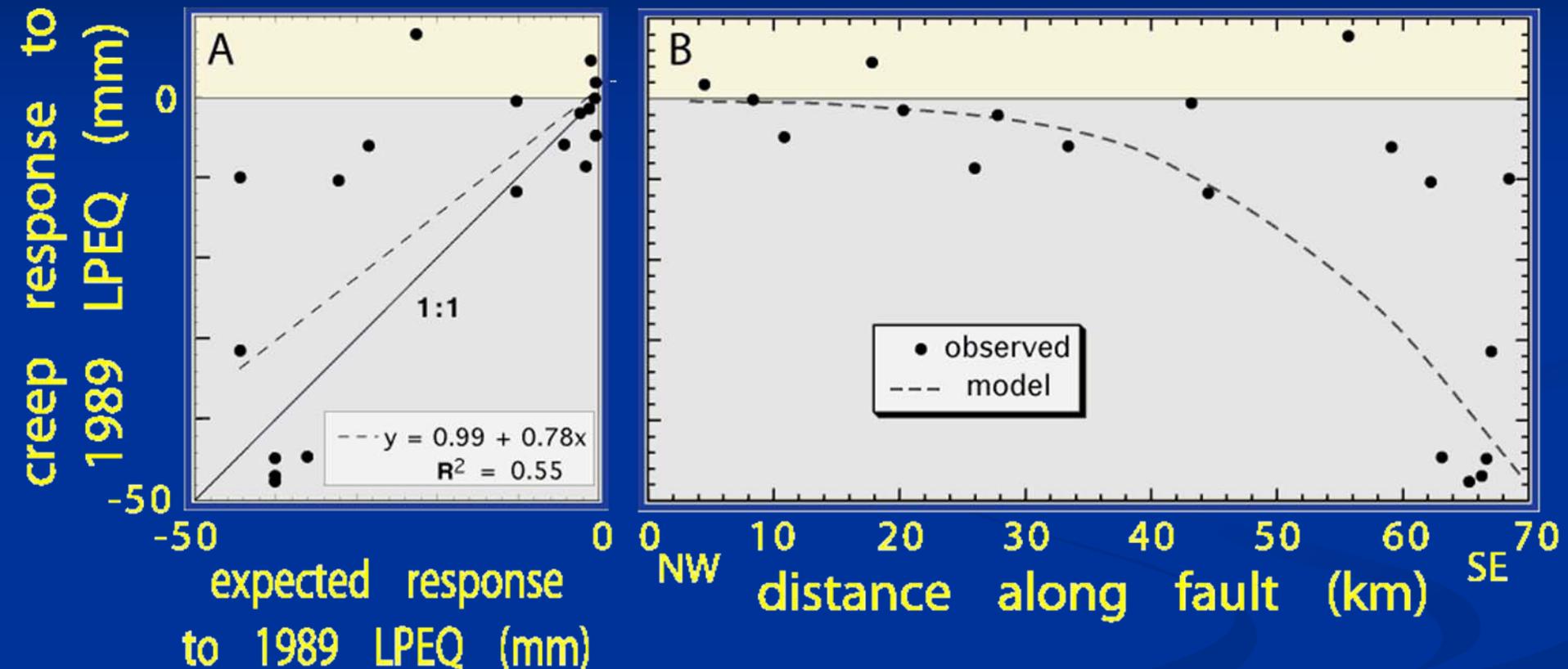
San Andreas fault

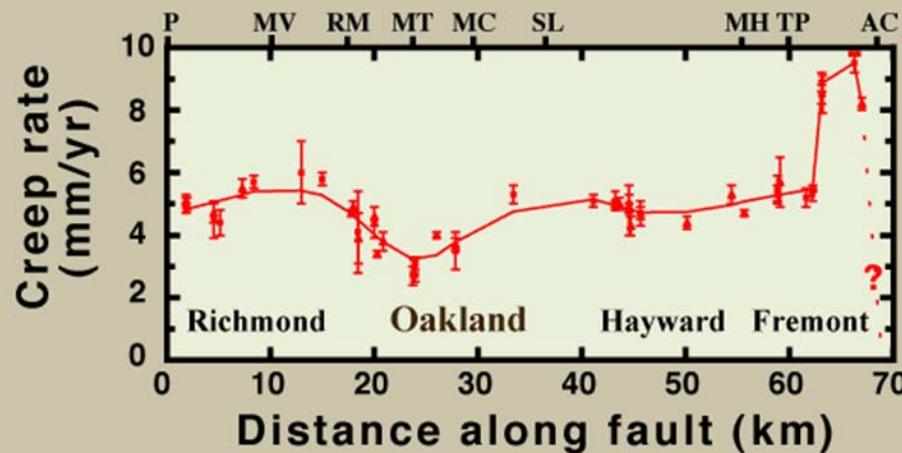
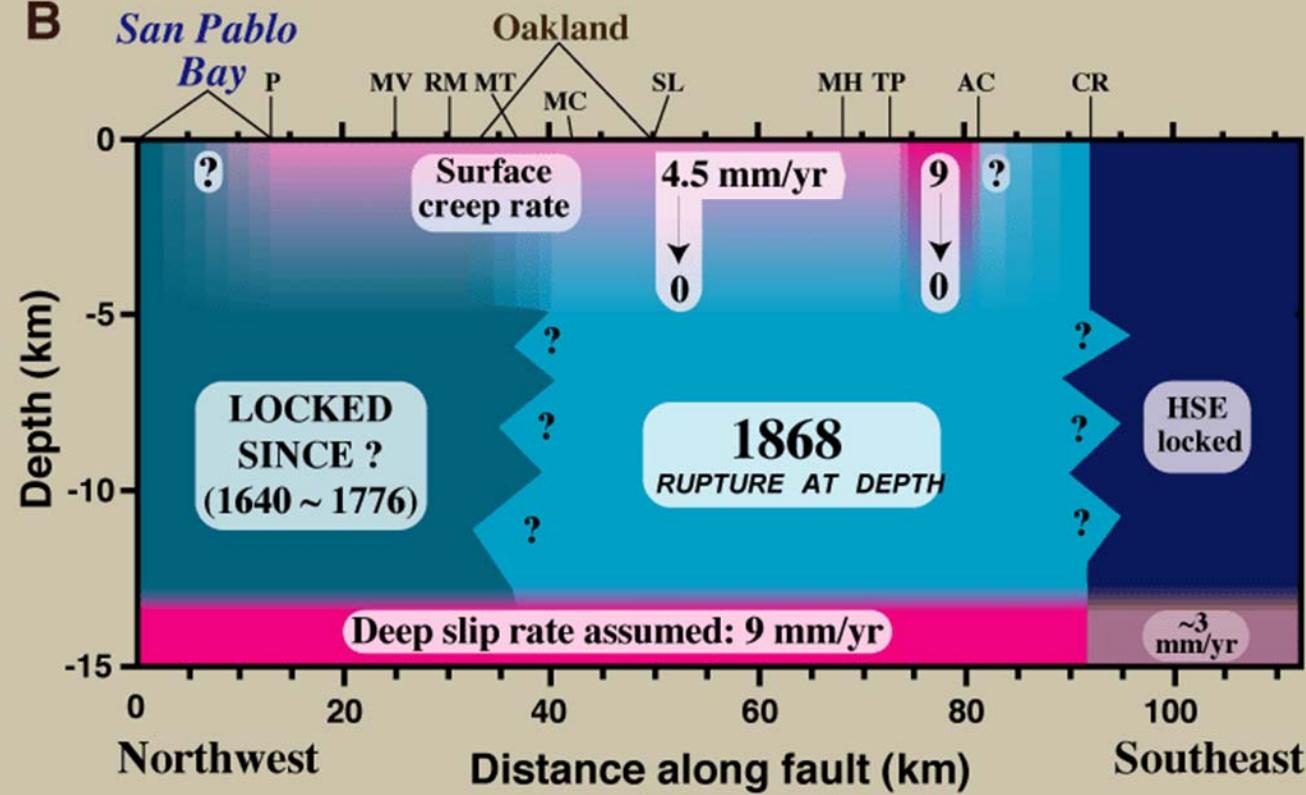


Monitoring Non-creeping Faults

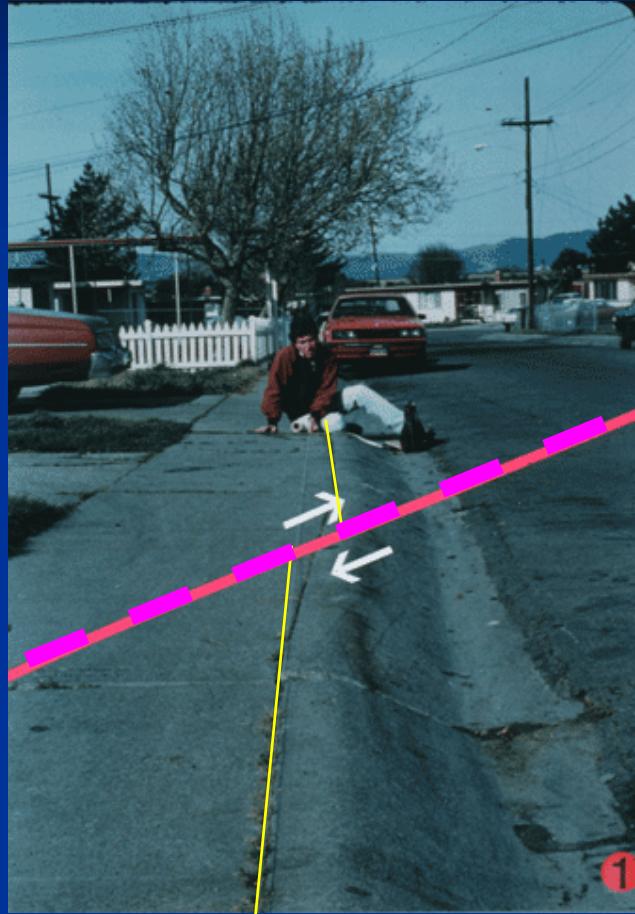


Response of Creep Rate on Hayward Fault To 1989 M7 Loma Prieta Earthquake

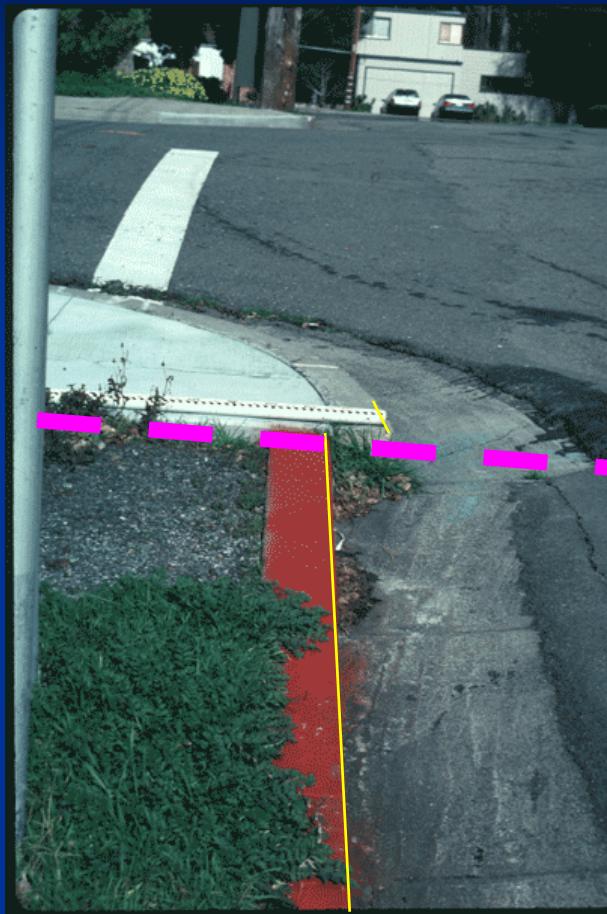


A**B**

Curbs Offset Right-laterally By Creep on Hayward Fault



Banks Dr., San Pablo



Rose St., Hayward



D Street, Hayward