Deformation Without Borders: GPS Results from Alaska and Western Canada

Julie Elliott, Jeff Freymueller, Lucinda Leonard, Roy Hyndman, and Yan Jiang





Cross and Freymueller, 2008





Leonard et al., 2007



25 mm/a velocity



YK/NA

-140°

-142°

cGPS

new sites

Recent GPS Studies

200 km



Distribution of Relative Plate Motion



Recent GPS Studies



 -142.0° -140.0° -138.0° -136.0° -134.0° -132.0° -130.0°

CGPS in Alaska



What is in the GPS signal?





Alaska GPS Velocities



Southeast Alaska GPS Velocities



Yakutat Corner GPS Velocities



Chugach-St. Elias GPS Velocities



Prince William Sound Velocities



Interior Alaska Velocities



Model Fault Geometry





Model Block Velocity Predictions



Model Relative Block Motions





Deformation in Alaska and Western Canada



The Eastern Alaska Subduction Zone



Aaron Wech

Questions?

Safet