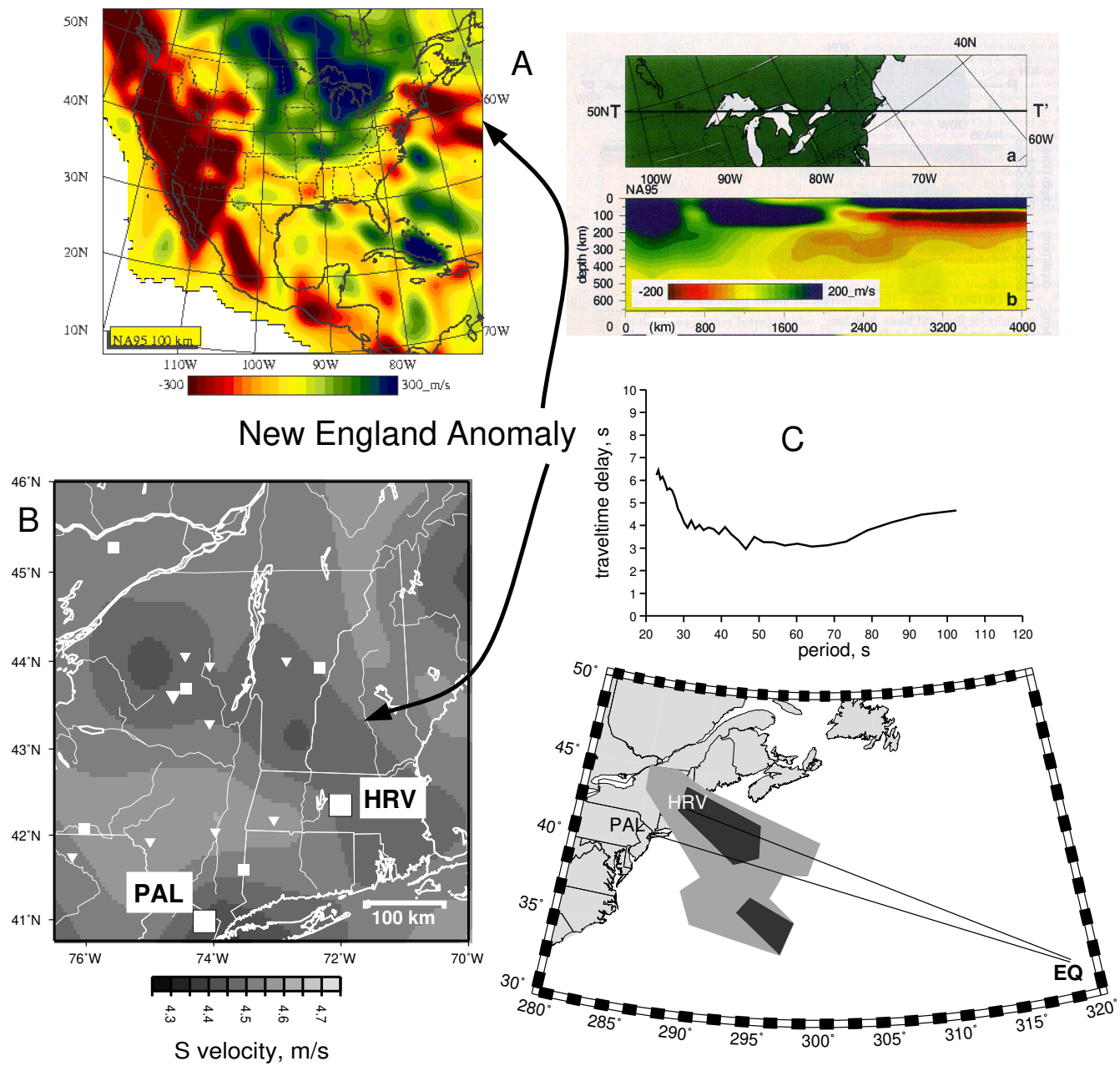

Figure 1. (A)Tomographic image of shear wave velocities under the North America and the adjuscent western Atlantic (from van der Lee and Nolet, 1997 clearly shows a major slow velocity anomaly). (B) S wave velocity distribution 100-200 km under New England and New York (from teleseismic S wave tomography, Levin et al., 2000) suggests an anomaly with a similar strike, but not as wide. (C) Differential traveltime (upper graph) between HRV and PAL for a Rayleigh wave from the Oct. 5, 2000 Mid-Atlantic Ridge earthquake (lower graph), after a correction that adjusts the two stations to the same source-receiver range. The 4s delay at HRV refects propagation along a path that is about 3% slower than the path to PAL, an amount consistent with path to HRV being through the center of the New England Anomaly, and the path to PAL being along its southern edge. Outline of the New England Anomaly is sketched in dark and intermadieate shading.