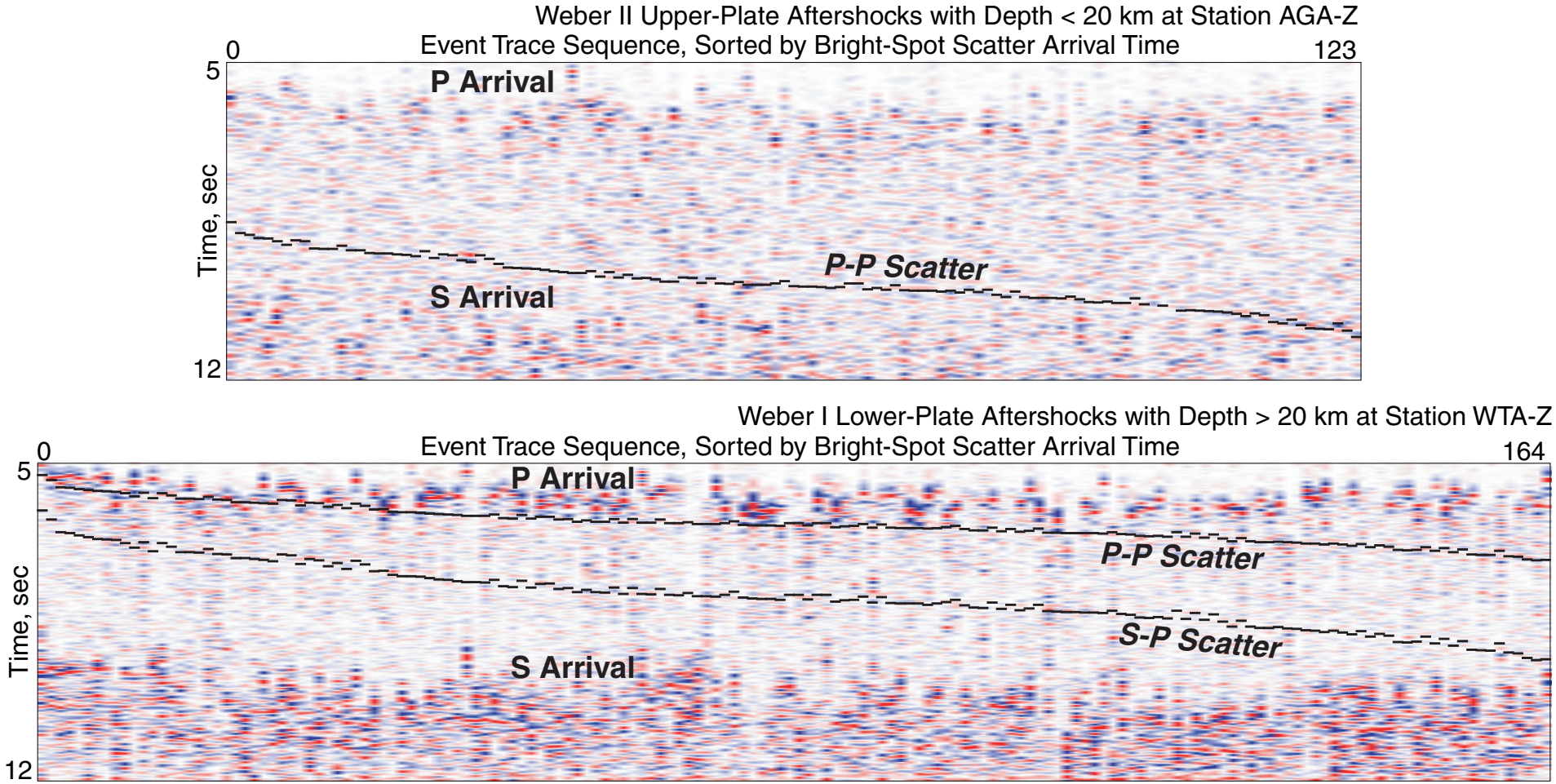

Figure 2: Common-receiver record sections of 1990 recordings of Weber I (below) and Weber II (above) aftershocks on stations WTA and AGA, respectively (Figure 1). The 1 Hz vertical-component instruments in Robinson's (1994) portable deployment were gain-ranged to prevent digitizer saturation (clipping), and are plotted as variable-density vertical strips in the images after trace equalization. Event magnitudes ranged from 1.0 to 6.4. The traces have epicentral distances ranging from 5 to 30 km and event depths ranging from 7 to 39 km. The traces are arranged in order of diffraction travel times to the "bright spot" on the plate interface at 20 km depth (Figure 1) and not by direct-wave arrival time or azimuth. Thus, reflections and conversions at the plate interface should be coherent from trace to trace while the direct arrivals appear broken. The black lines trace the arrival time across the sections of: top, P-P backscattering at the plate interface from the Weber II events in the upper plate; and bottom, P-P forward scattering and S-P conversion at the plate interface from the Weber I events in the lower plate. Note the direct S arrival has similar amplitude to, and does not stand out against, the earlier-arriving backscattered reflections and converted phases from the upper-plate event. The horizontal-component Weber II recordings share these emergent S arrivals.