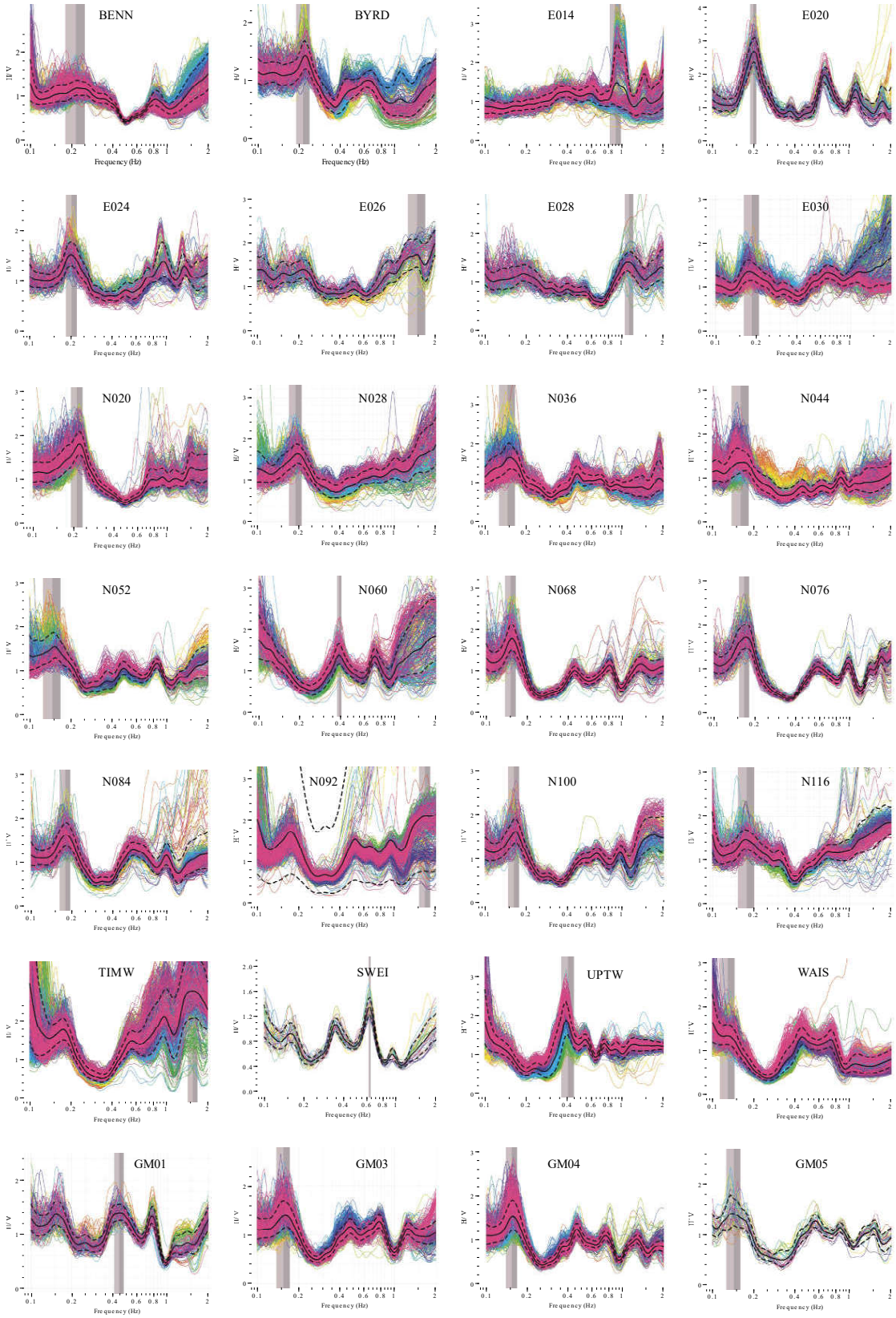

Figure. S1 H/V spectra of the remaining 56 stations.

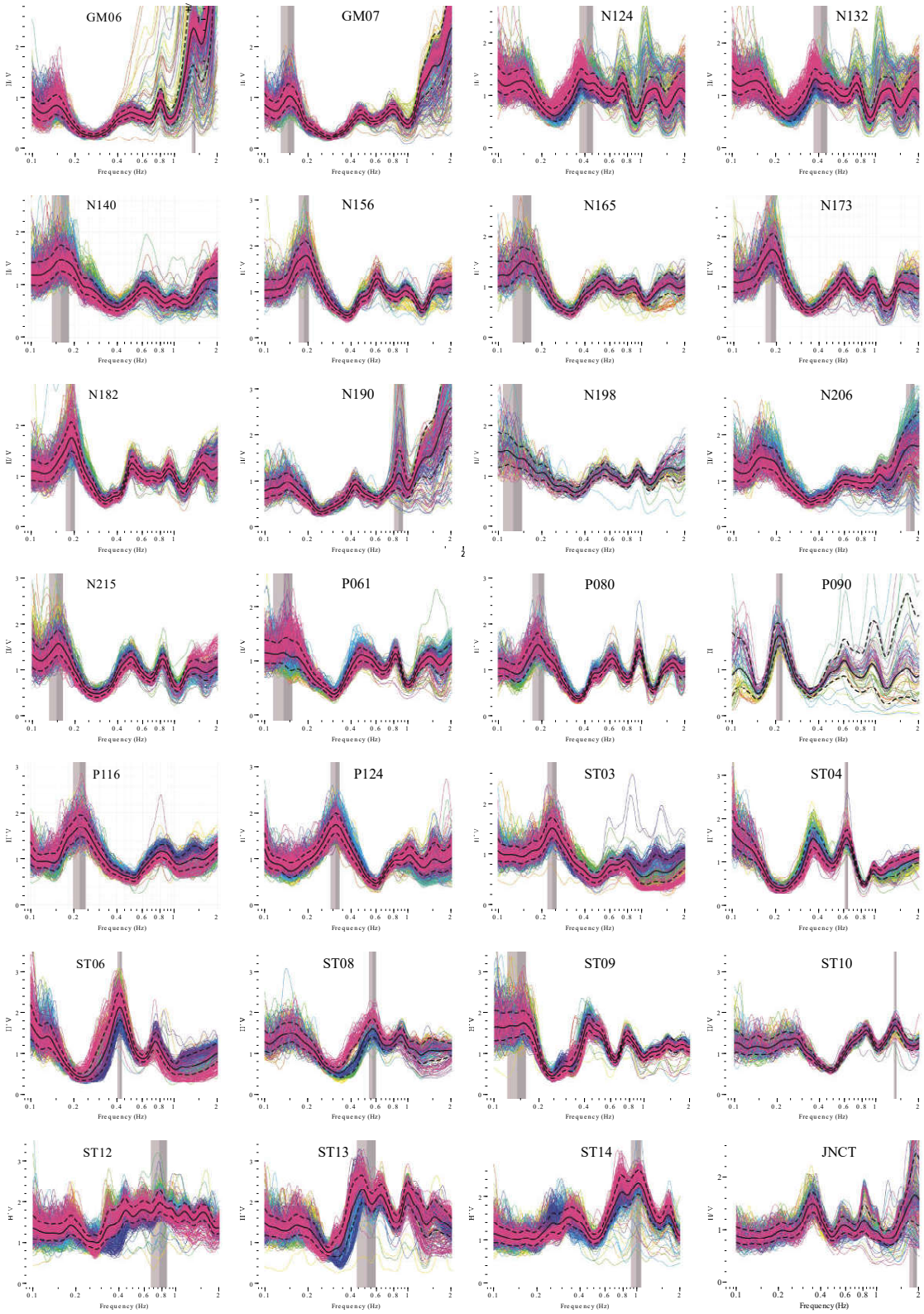

Figure. S1 continued.

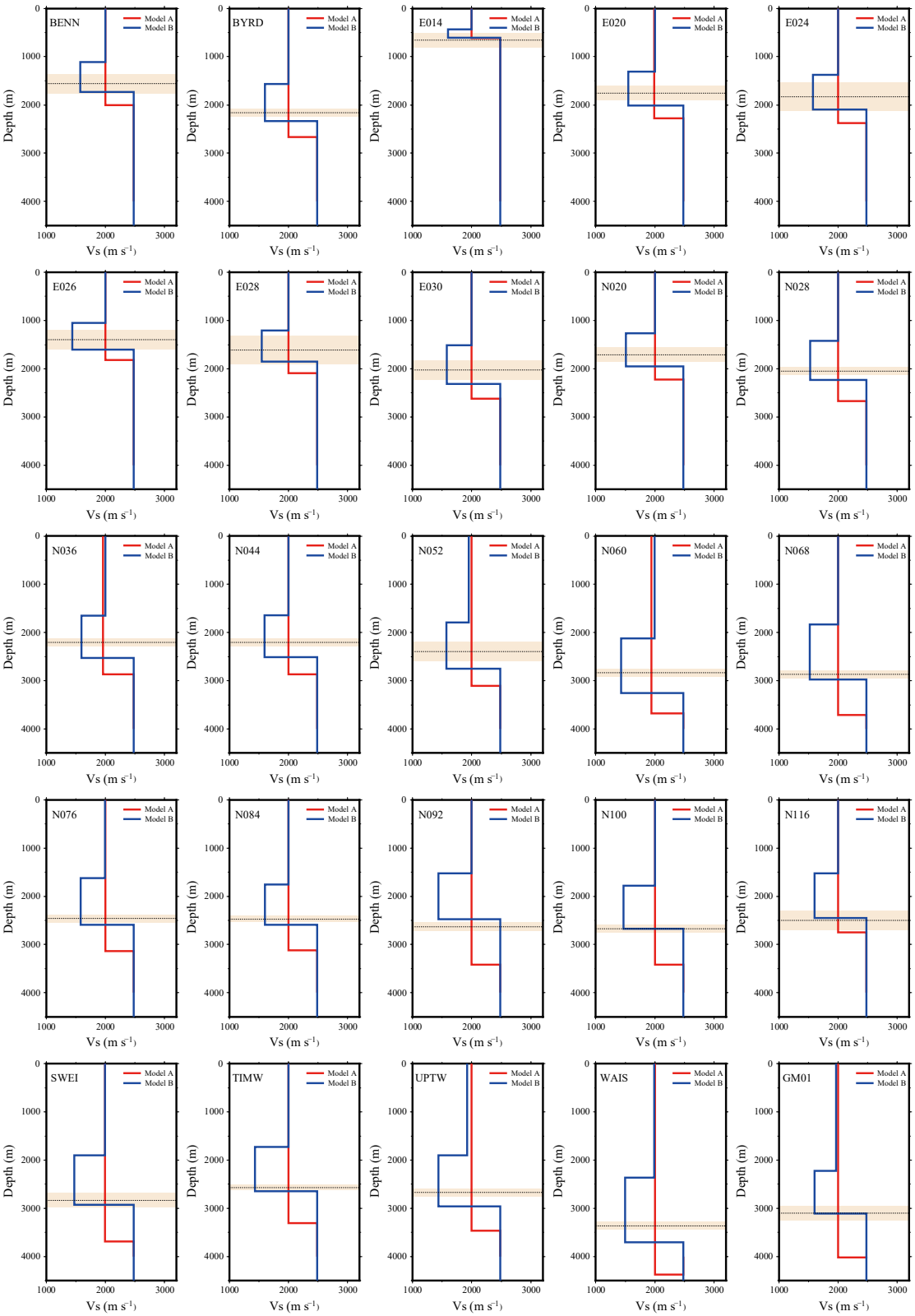

Figure. S2 The optimum inversion shear-wave velocity models for the remaining 56 stations.

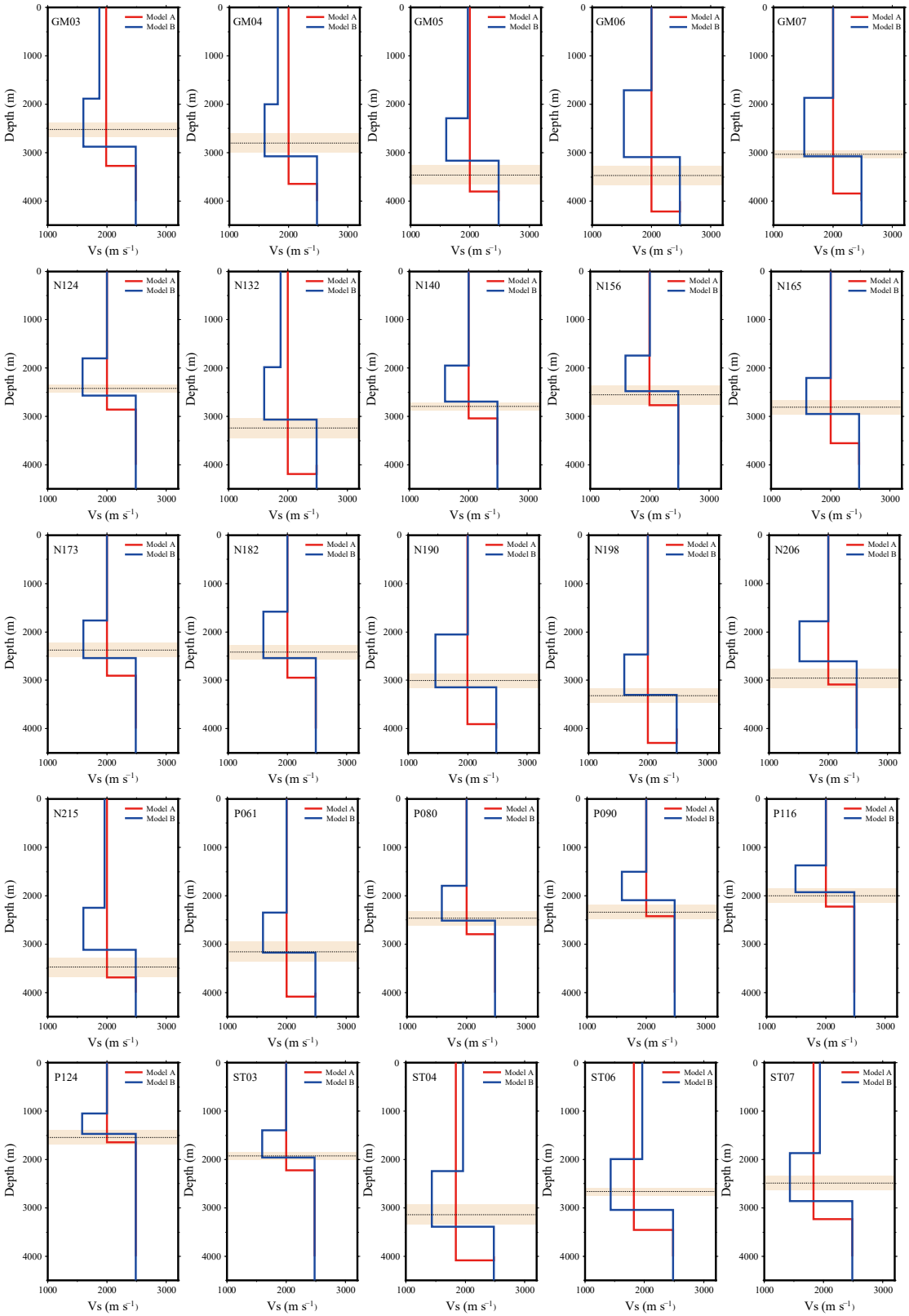

Figure. S2 continued.

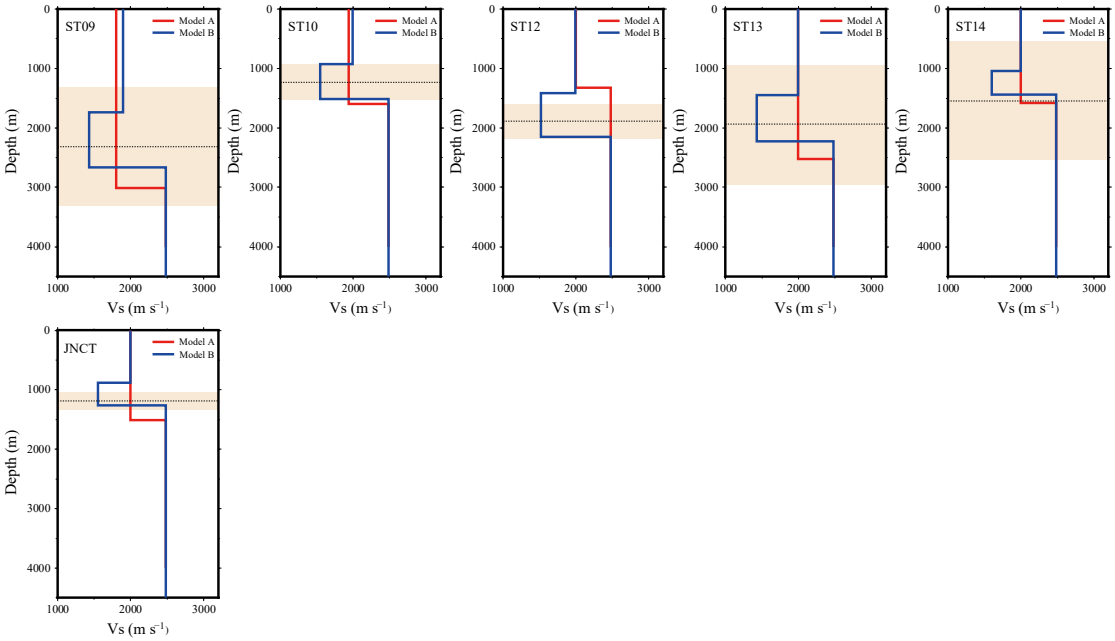

Figure. S2 continued.

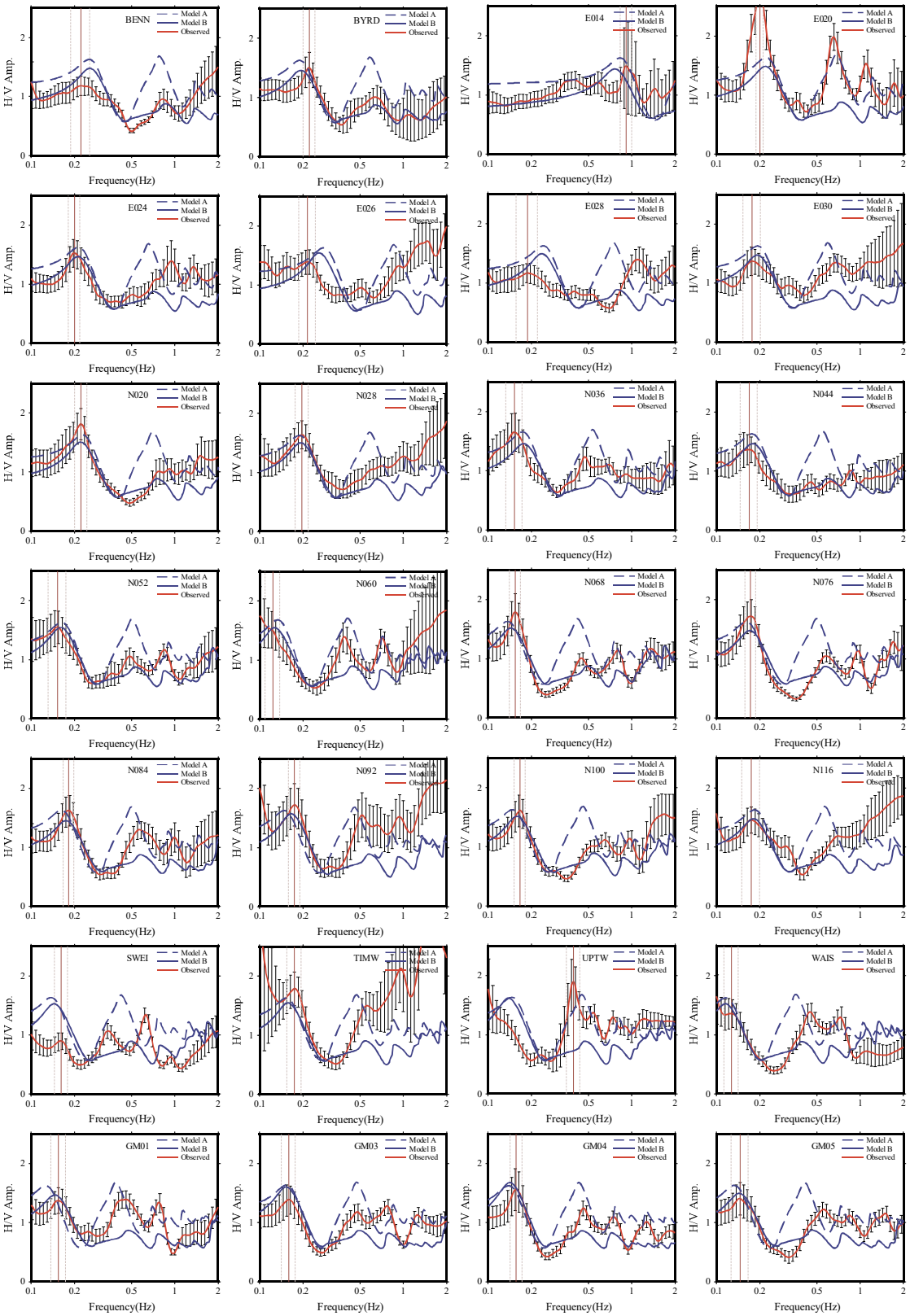

Figure. S3 The synthetic H/V spectra and the observed H/V spectra for the remaining 56 stations.

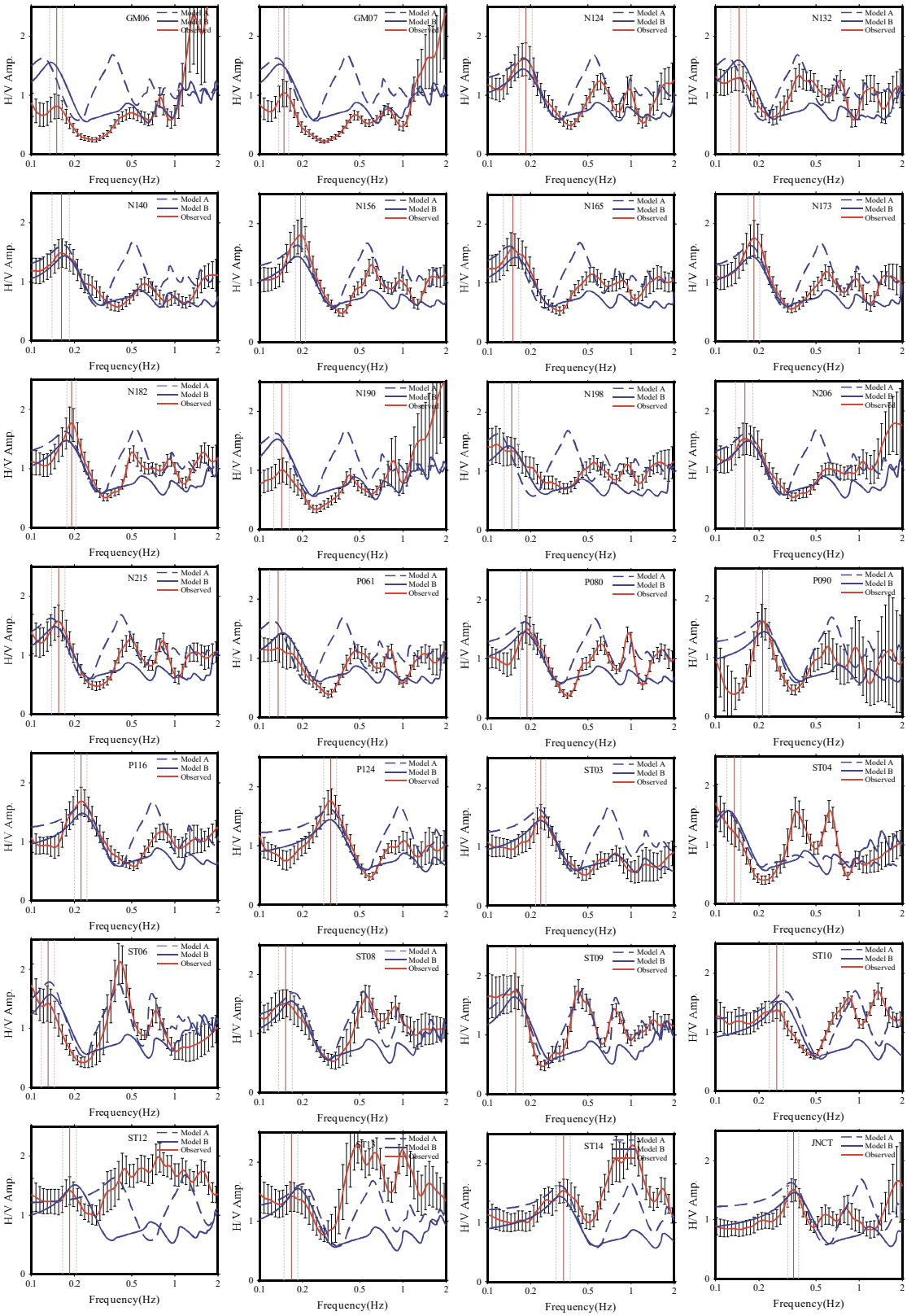

Figure. S3 continued.

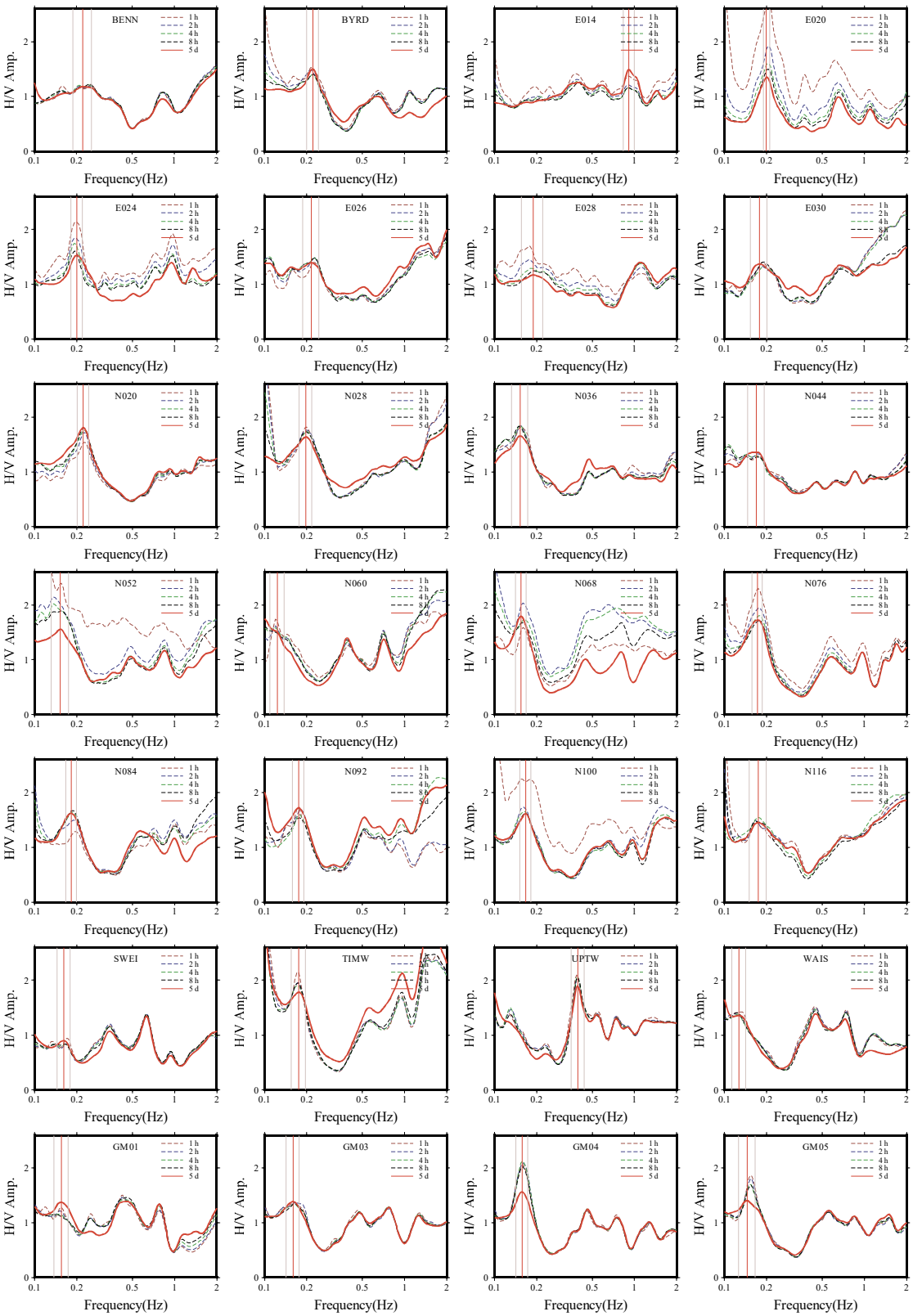

Figure. S4 H/V spectra calculated using different lengths (1 h, 2 h, 4 h, 8 h) of ambient noise records for the remaining 56 stations.

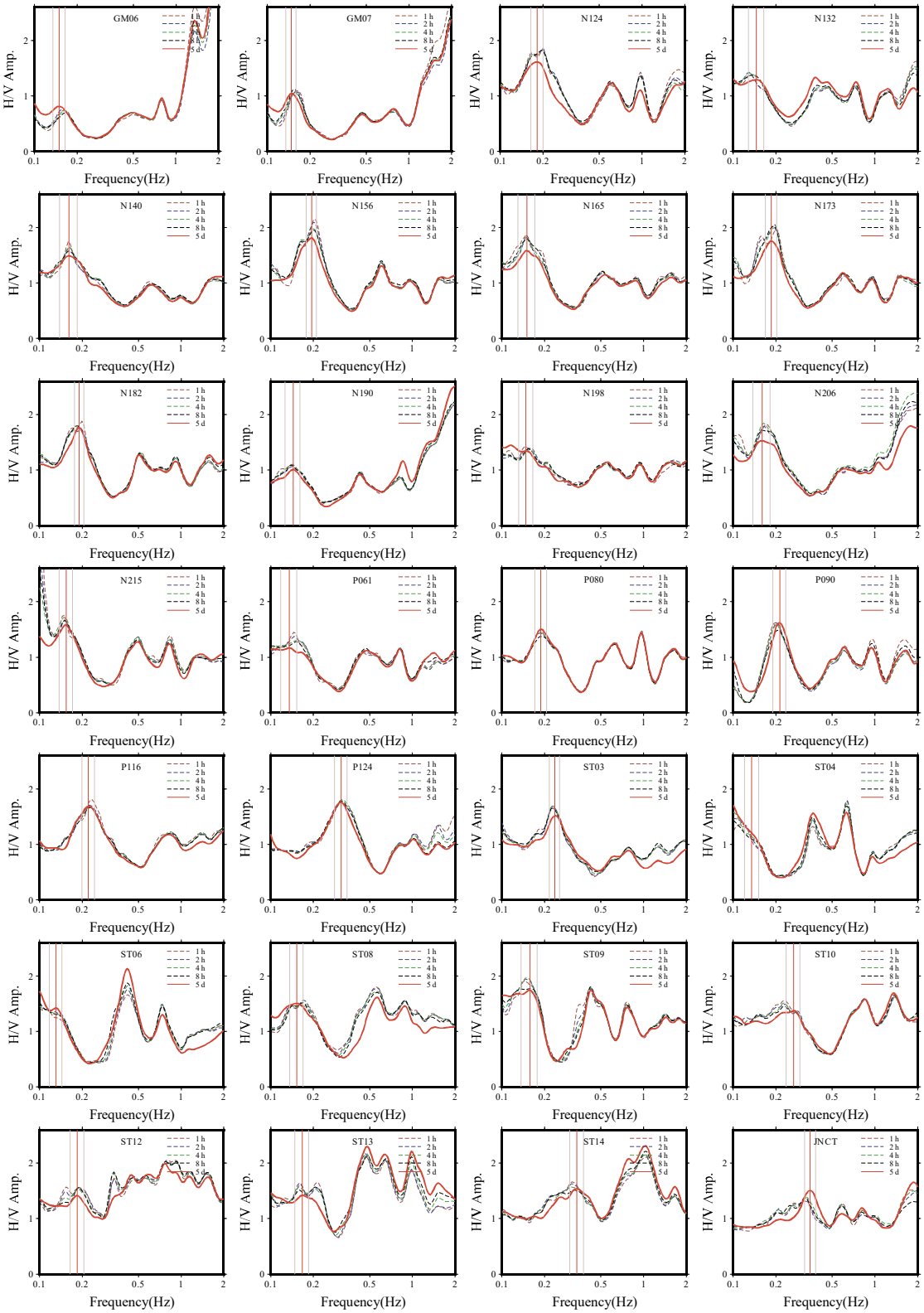

Figure. S4 continued.

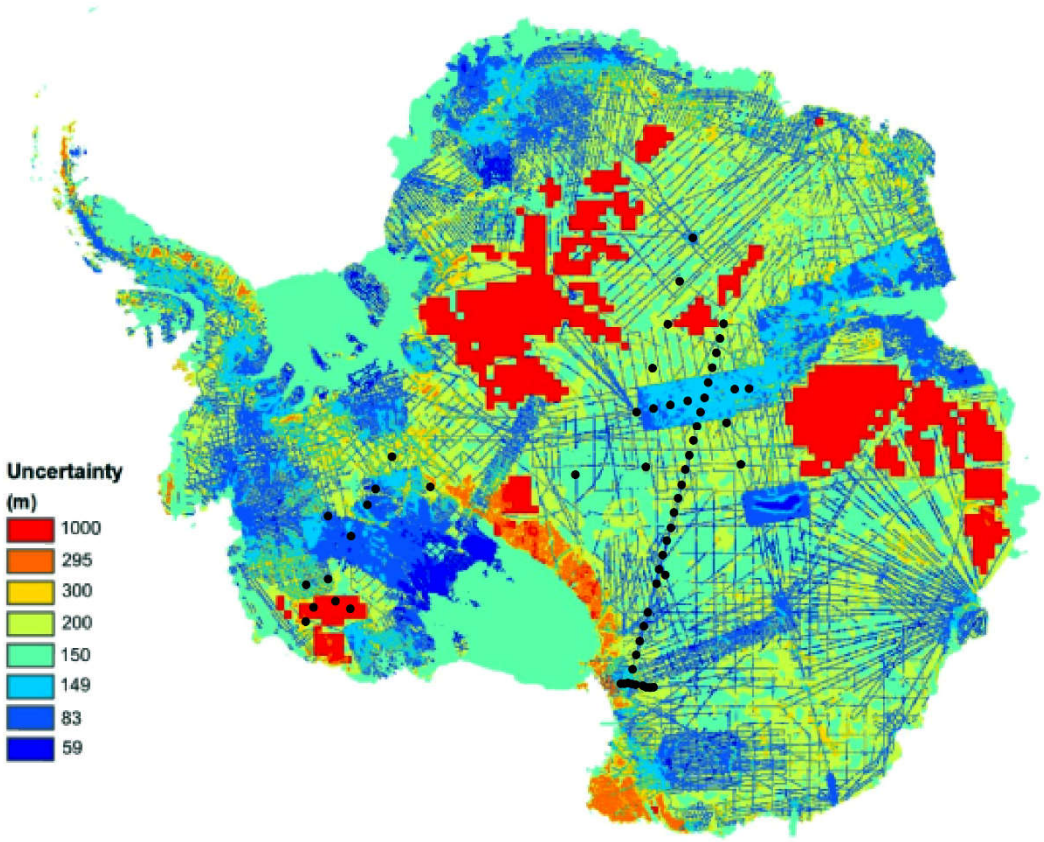

Figure. S5 Uncertainty of the Bedmap2 ice thickness at each station (after Figure 11, Fretwell et al., 2013). The locations of the stations are projected to Fretwell's figure as the black dots denoted.