

Spatiotemporal changes in seismic velocity associated with hydraulic fracturing-induced earthquakes near Fox Creek, Alberta, Canada

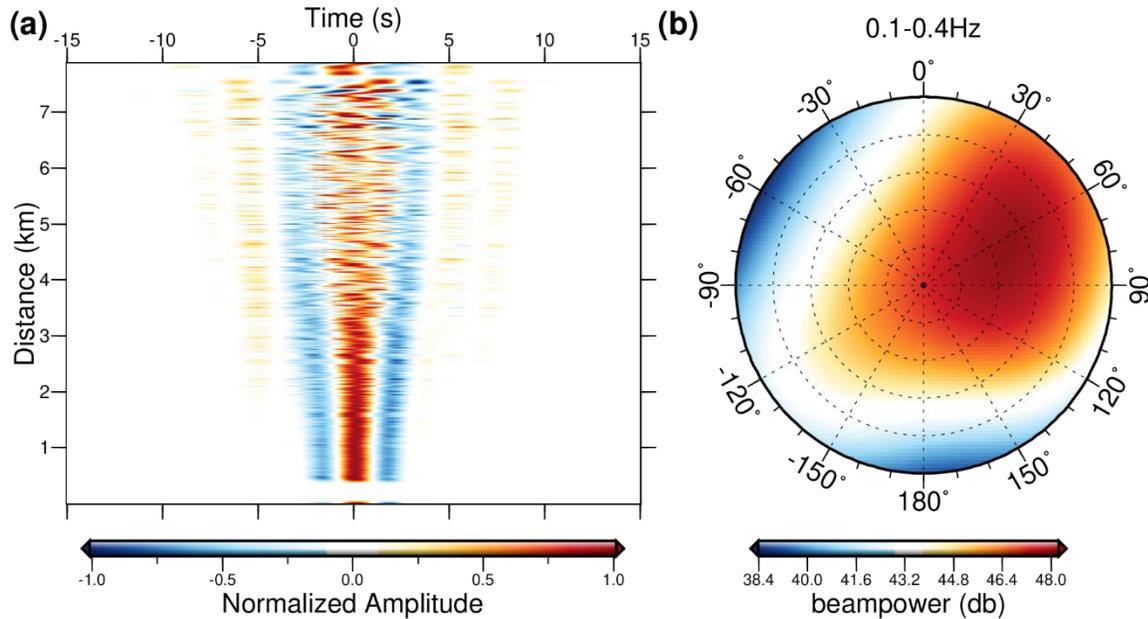
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**Figure S1.** (a) Noise correlation functions stacked over the deployment period (reference NCFs) using the 69 shallow-buried geophones. Clear Rayleigh wave arrivals can be seen on both the positive and negative time lags with moveout velocity of  $\sim 3.15$  km/s (b) Azimuthal distribution of the noise source at 0.1-0.4 Hz from beamforming analysis. The dominant sources lie in the NE and SE directions between  $10^\circ - 130^\circ$ .

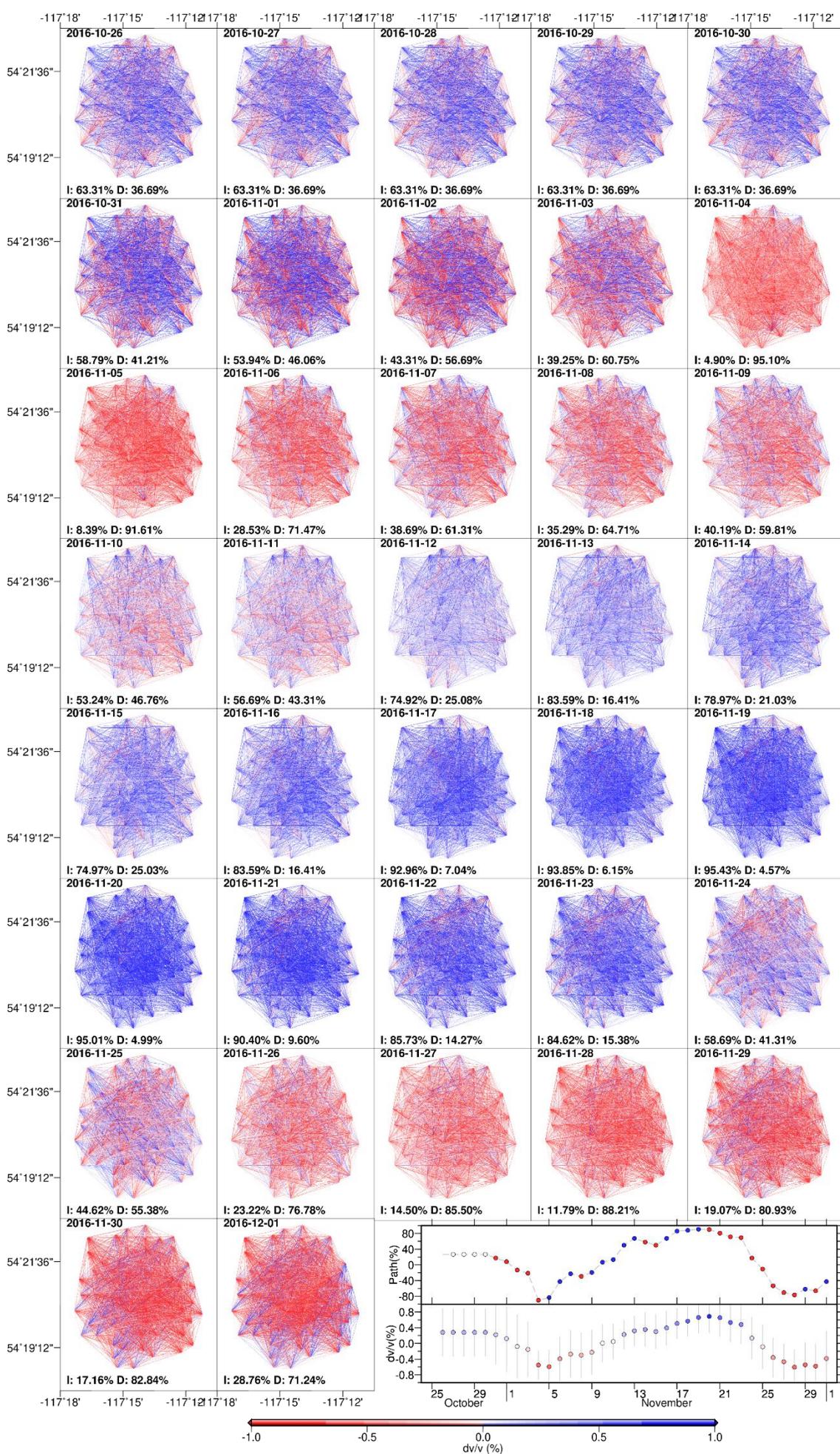


Figure S2. spatiotemporal evolution of  $\delta v/v$  throughout the deployment at 0.2-0.5 Hz like Figure 3.

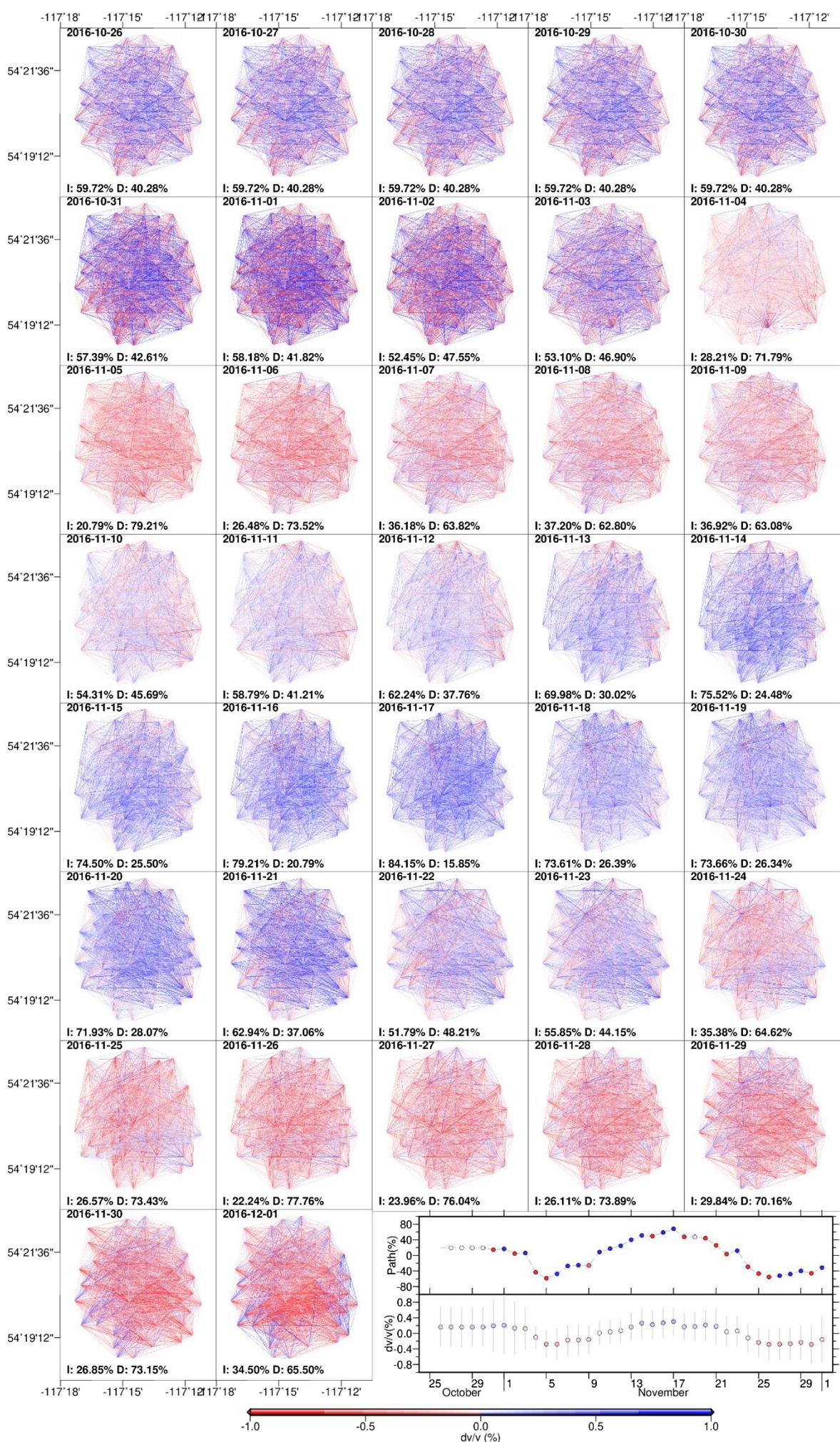


Figure S3. spatiotemporal evolution of  $\delta v/v$  throughout the deployment at 0.3-0.8 Hz like Figure 3.

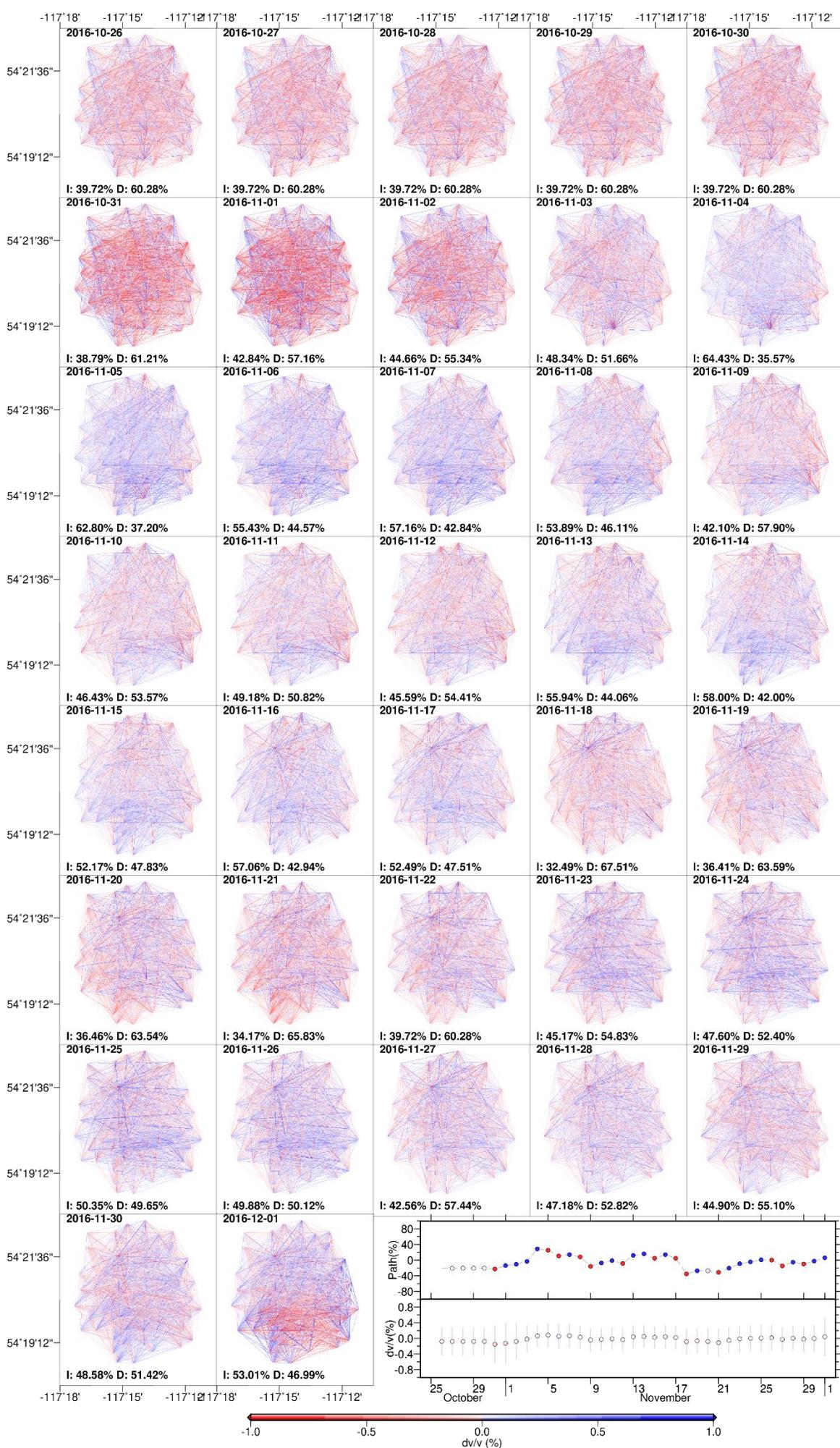


Figure S4. spatiotemporal evolution of  $\delta v/v$  throughout the deployment at 0.4-0.9 Hz like Figure 3.

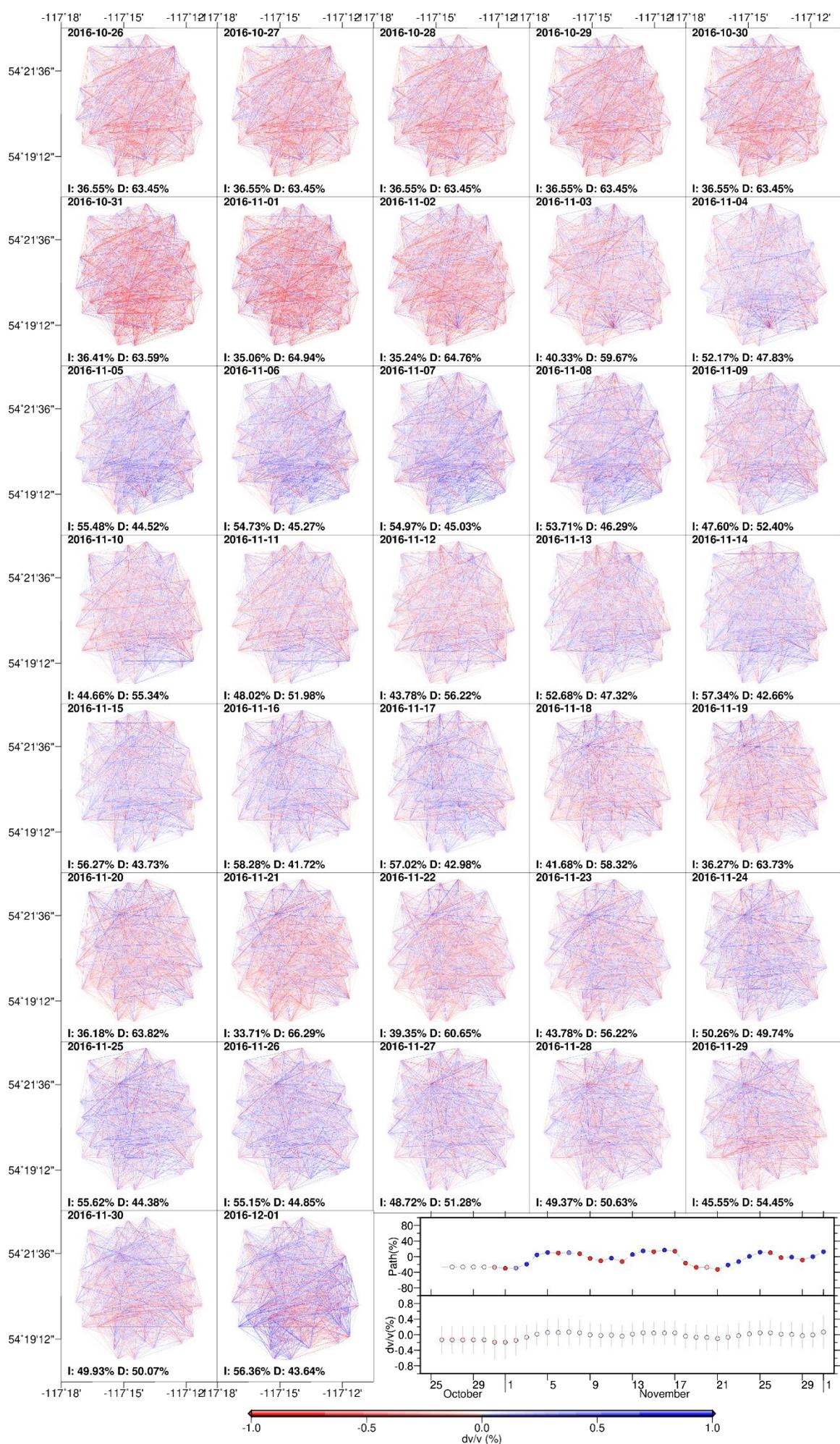


Figure S5. spatiotemporal evolution of  $\delta v/v$  throughout the deployment at 0.5-1.0 Hz like Figure 3.

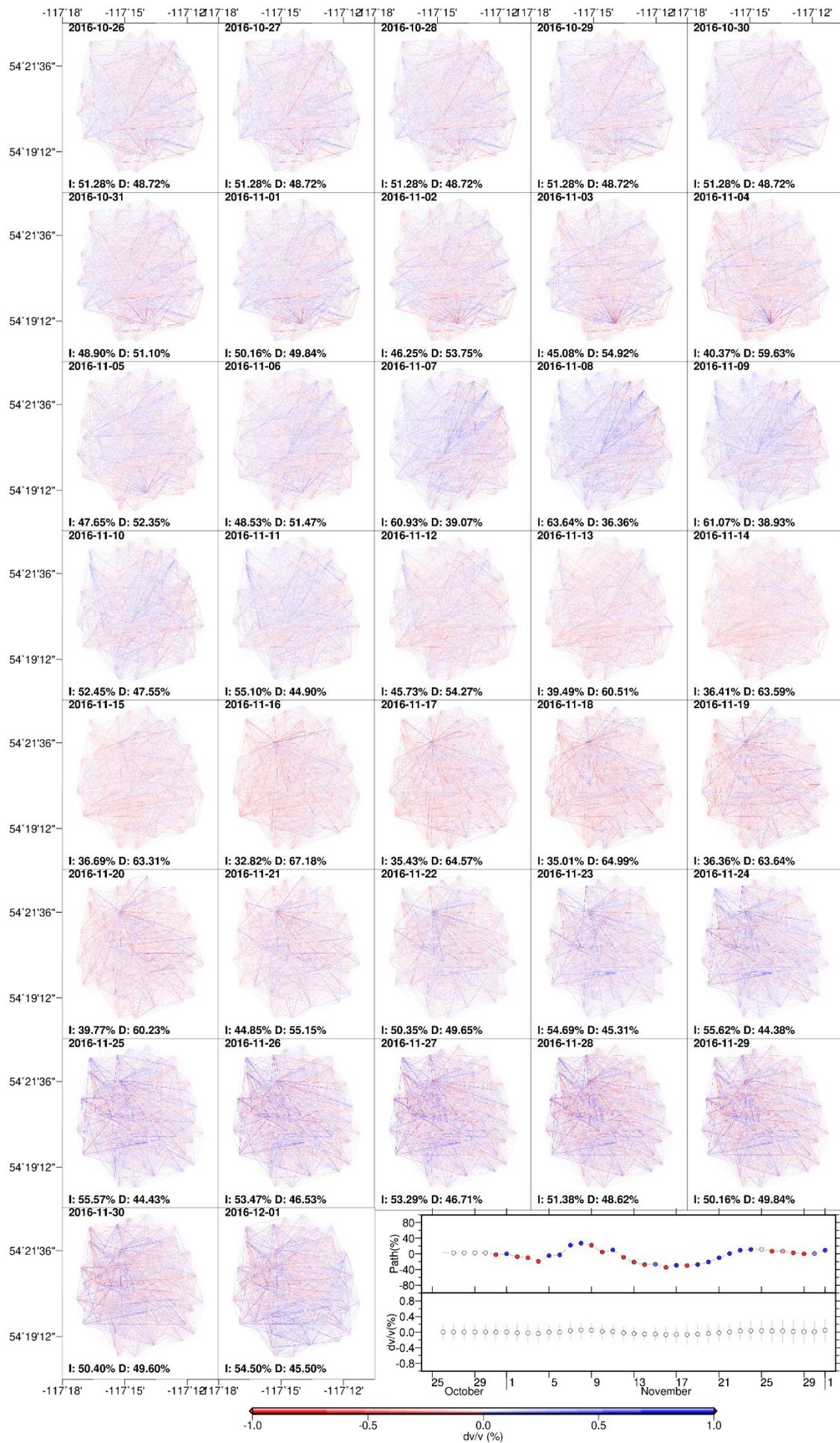


Figure S6. spatiotemporal evolution of  $\delta v/v$  throughout the deployment at 0.7-2.0 Hz like Figure 3.