

Supporting Information for ”Locating rockfalls using inter-station ratios of seismic energy at Dolomieu crater, Piton de la Fournaise volcano”

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Contents of this file

1. Figures S1 to S5

Additional Supporting Information (Files uploaded separately)

1. Captions for Movies S1 to S5

Introduction

This supporting information provides the seismograms and movies of all rockfalls at Dolomieu crater which are localized in the main article.

Movie S1. Movie of rockfall on December 7, 2015, southwestern crater wall, filmed from camera DOEC, together with generated seismic signals recorded at closest station BOR (vertical velocity), filtered in frequency bands 10-30 Hz, 3-10 Hz, 1-3 Hz, and 1-30 Hz and the corresponding spectrogram. The red bars on the left side of the seismic signals indicate their relative scaling.

Movie S2. Movie of rockfall on February 28, 2016, southern crater wall, filmed from camera SFRC, together with generated seismic signals recorded at closest station DSO (vertical velocity), filtered in frequency bands 10-30 Hz, 3-10 Hz, 1-3 Hz, and 1-30 Hz and the corresponding spectrogram. The red bars on the left side of the seismic signals indicate their relative scaling.

Movie S3. Movie of rockfall on June 14, 2016, northwestern crater wall, filmed from camera DOEC, together with generated seismic signals recorded at closest station BON (vertical velocity), filtered in frequency bands 10-30 Hz, 3-10 Hz, 1-3 Hz, and 1-30 Hz and the corresponding spectrogram. The red bars on the left side of the seismic signals indicate their relative scaling.

Movie S4. Movie of rockfall on December 13, 2016, southwestern crater wall, filmed from camera DOEC, together with generated seismic signals recorded at closest station BOR (vertical velocity), filtered in frequency bands 10-30 Hz, 3-10 Hz, 1-3 Hz, and 1-30 Hz and the corresponding spectrogram. The red bars on the left side of the seismic signals indicate their relative scaling.

Movie S5. Movie of rockfall on January 22, 2017, northwestern crater wall, filmed from camera DOEC, together with generated seismic signals recorded at closest station BON (vertical velocity), filtered in frequency bands 10-30 Hz, 3-10 Hz, 1-3 Hz, and 1-30 Hz and

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the corresponding spectrogram. The red bars on the left side of the seismic signals indicate their relative scaling.

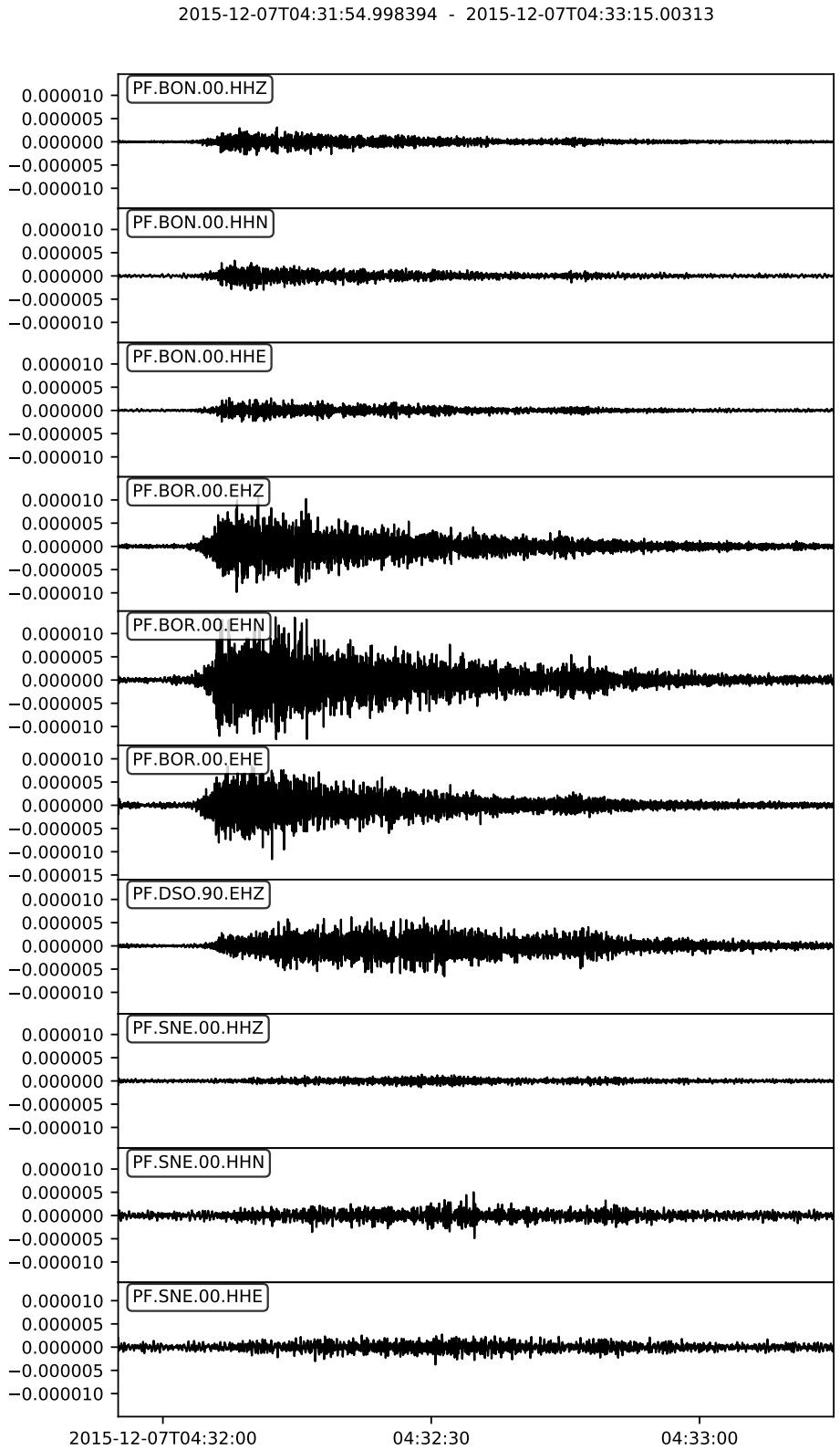


Figure S1. Seismograms of rockfall on December 7, 2015, bandpass filtered at 2-50 Hz. Units in ground velocity (m/s).

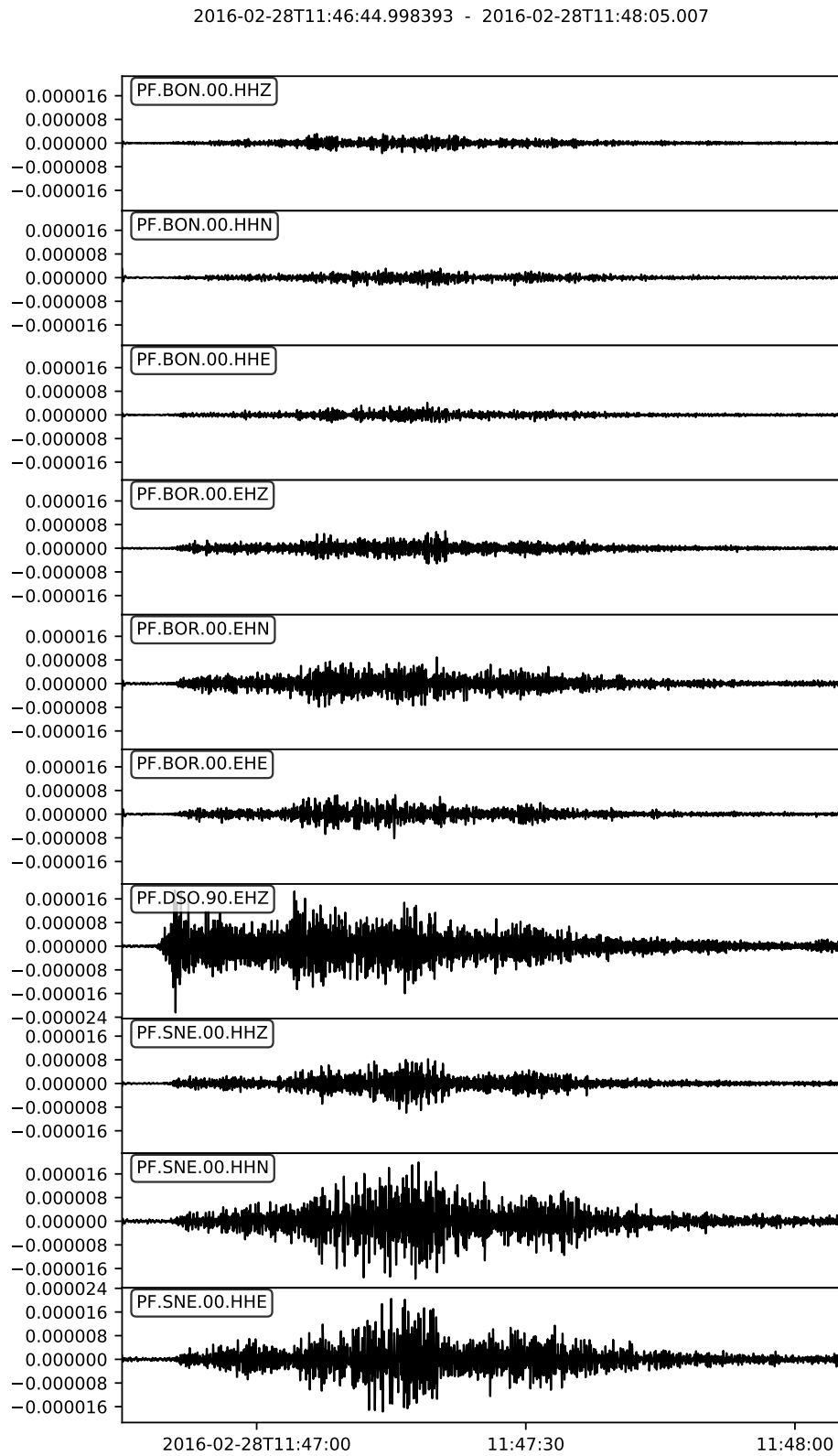


Figure S2. Seismograms of rockfall on February 28, 2016, bandpass filtered at 2-50 Hz. Units in ground velocity (m/s).

2016-06-14T11:24:19.998393 - 2016-06-14T11:25:20.00313

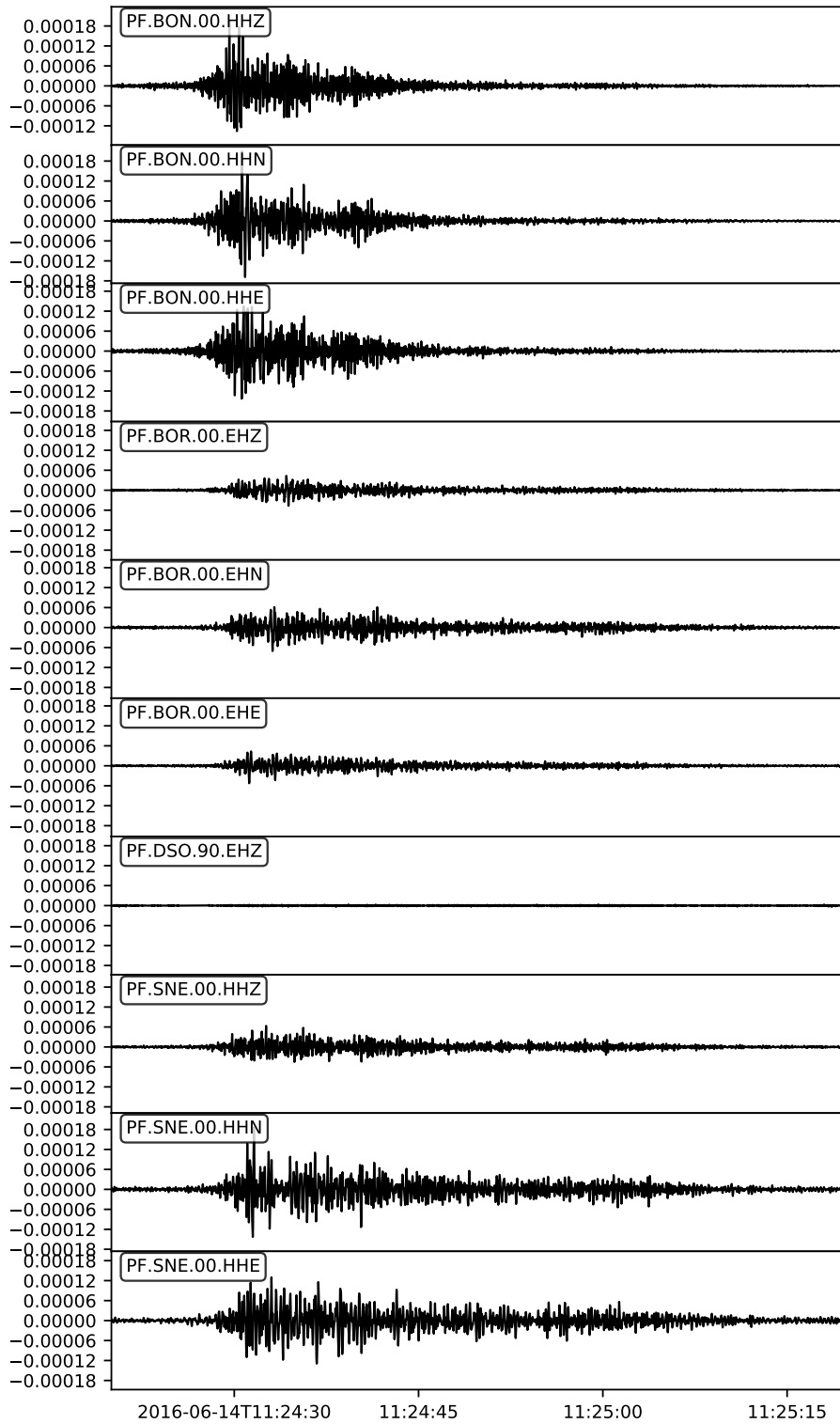


Figure S3. Seismograms of rockfall on June 14, 2016, bandpass filtered at 2-50 Hz. Units in ground velocity (m/s).

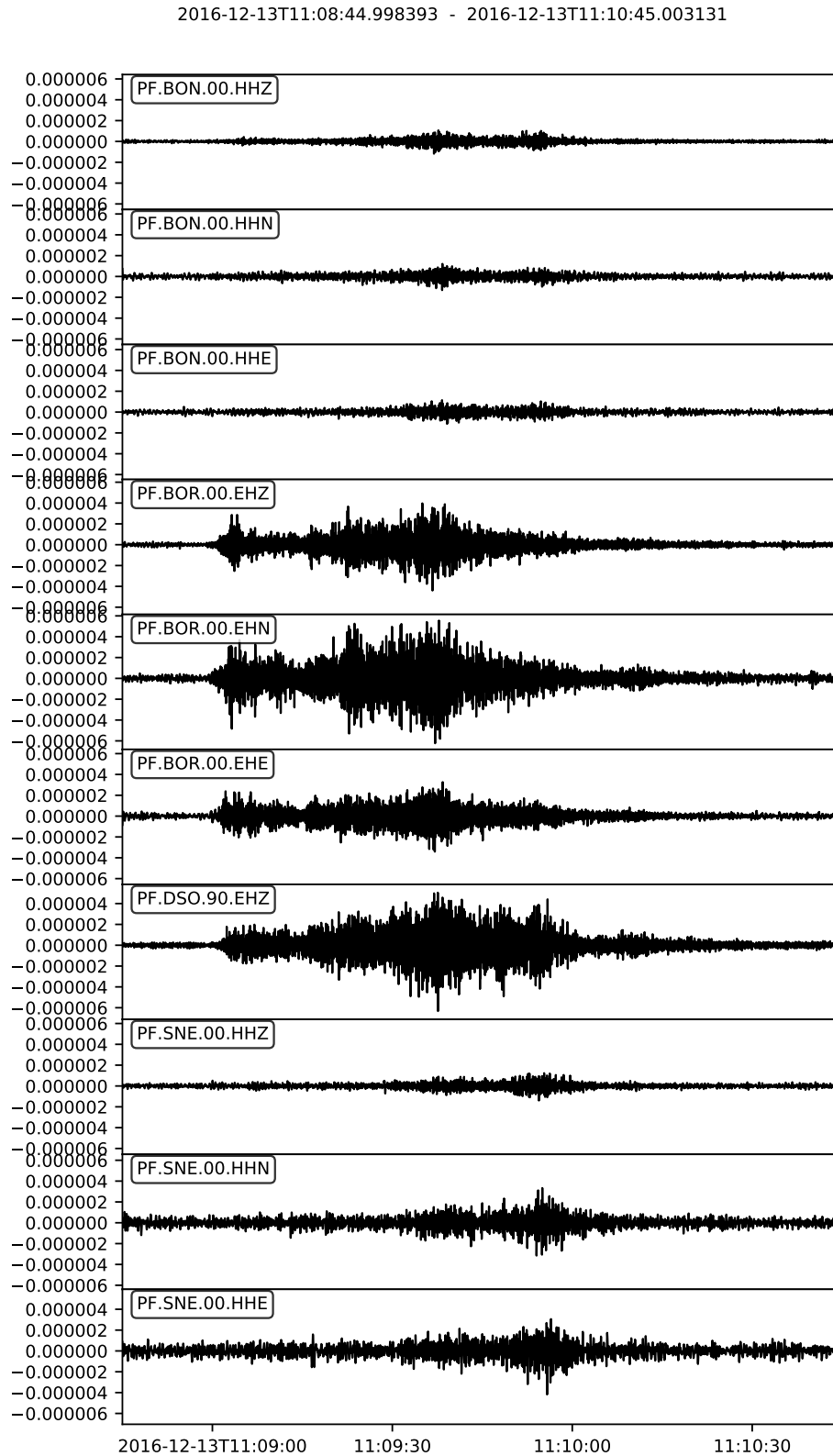


Figure S4. Seismograms of rockfall on December 13, 2016, bandpass filtered at 2-50 Hz. Units in ground velocity (m/s).

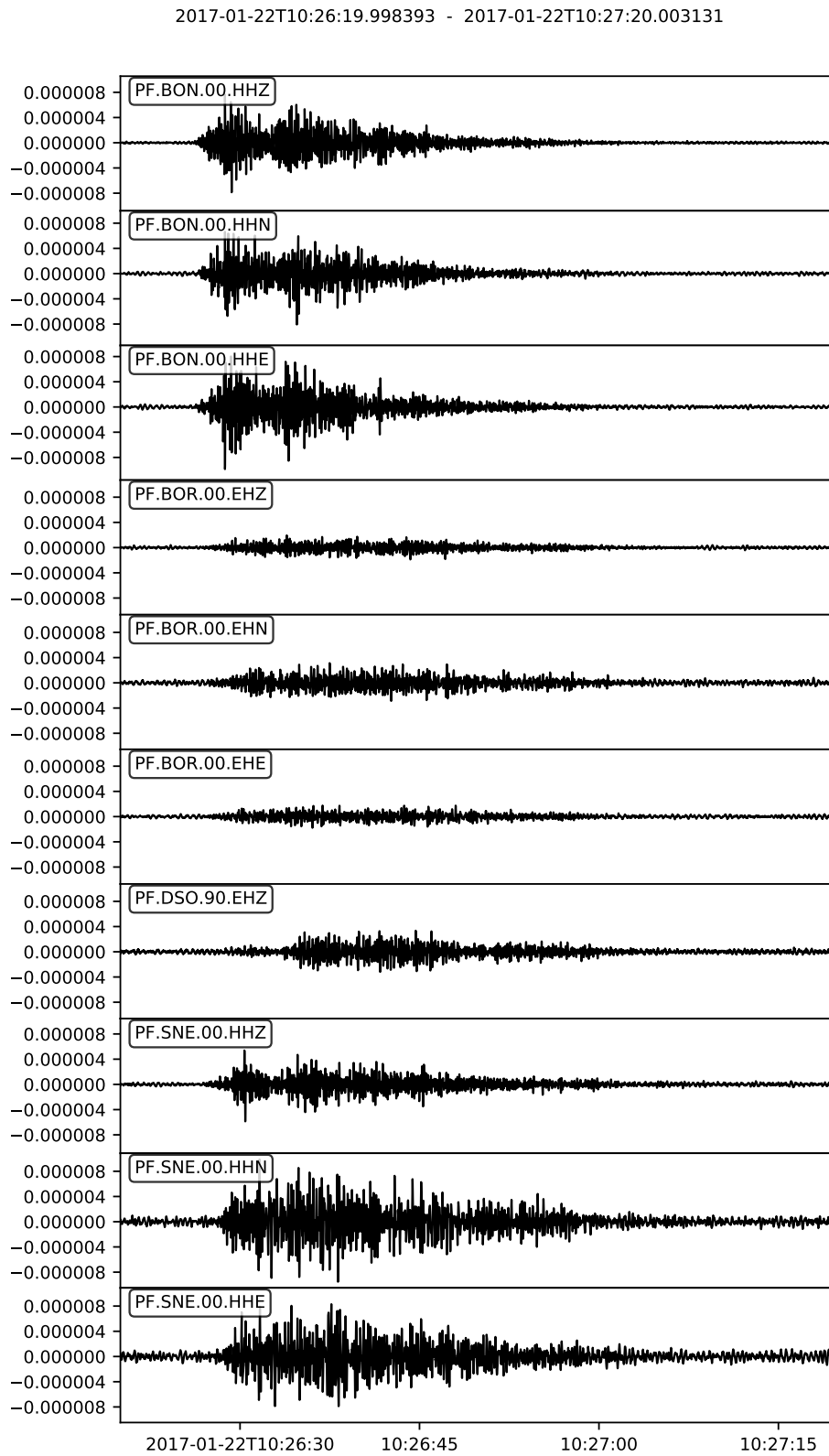


Figure S5. Seismograms of rockfall on January 22, 2017, bandpass filtered at 2-50 Hz. Units in ground velocity (m/s).