

Digitized and Calibrated Historical Seismic Data of United States Underground Nuclear Tests Recorded on the Leo Brady Seismic Network in the 1960s and 1970s

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The Leo Brady Seismic Network (LBSN) is a small regional seismic network established in 1960 by Sandia National Laboratories to monitor US underground nuclear tests at the Nevada Test Site (now known as the Nevada National Security Site). Until the mid-1980s, data recorded by this network were telemetered as frequency modulated audio from each seismograph over telephone lines to a central location where the signals were then split – one path going to traditional seismic paper records and the other to analog magnetic tapes. While the paper records have long since been lost to history, the tapes have survived. For the past several years, we have been working to digitize these tapes and recover and calibrate waveforms from them. Herein we present the first major results of our recovery efforts, showing newly recovered seismic waveforms which, until today, have not been seen for more than half a century and have never been available in digital form. We also describe the recovery process and data quality associated with such old seismic records. These “new” old waveforms provide additional data to validate International Monitoring System models and algorithms. SNL is managed and operated by NTESS under DOE NNSA contract DE-NA0003525

Promotional text

“New” old data: Recovering and calibrating half-century-old analog waveforms almost forgotten to history.

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Oral preference format

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