



Variations in near-regional P/S spectral amplitudes from explosions

Ivan Kitov, John Coyne, and Dmitry Bobrov
CTBTO, IDC, Vienna, Austria (Ivan.Kitov@ctbto.org)

Regional screening at the International Data Centre is built on the difference between spectral ratios of P- and S-type waves at higher frequencies. The ratios are separated into two slightly merging populations. The performance of screening may be improved by usage of higher quality data and statistical methods. There are two principal causes of uncertainty in spectral amplitudes. First is related to natural variations in the source of seismic signal. Second is associated with the difference in geometrical spreading and attenuation between the source and receiver. We focus on the spectral variations induced by source. Several explosions of the same yield conducted close in time and space were recorder at several near-regional stations. Corresponding spectral ratios demonstrate low variation implying only slight influence on regional screening.