

full coupling and normal noise conditions. It is pointed out that NORESS has particularly favourable conditions for detecting small events from this test site, and that the seismic identification threshold necessarily will be higher than the detection threshold.

Data from new Global Seismic Network stations in the Soviet Union, installed as a co-operative project between American and Soviet scientists, have been applied in several studies to address problems relevant to an in-country monitoring network. Seismic noise levels at these stations are analysed in [19], and found to be higher than at NORESS in the band 1-20 Hz, with maximum difference ranging from 7 to 25 dB, depending on the station. However, significant noise reduction can be achieved by borehole deployment.

Using data from stations in the USSR, the frequency-dependent attenuation of regional seismic phases has been studied in [22]. Attenuation characteristics are found to be similar to those observed in Scandinavia, but with an absolute Pn amplitude almost a factor of 2 higher in eastern Kazakhstan for a fixed Lq magnitude.

Recordings of Semipalatinsk nuclear explosions at the new Global Seismic Network station in the Soviet Union, together with data from stations in China have been analysed in [20] and it is shown that RMS Lq can be measured at widely separated stations with a remarkable degree of consistency. The standard deviation of the differences between pairs of stations is as low as 0.03-0.04 in logarithmic units, and reliable measurements may be made at magnitude ( $m_G$ ) down to about 4.0 for stations situated about 1,500 km away from Semipalatinsk. The importance of this observation in terms of supplying yield estimates for nuclear explosions down to and even below the one kiloton is pointed out.

#### Earth structure, wave propagation, scattering

Several of the papers were devoted to studies of general problems in seismology and geophysics, in areas relevant to the seismic monitoring issue. The structure of the crust and upper mantle in parts of Northern Eurasia is addressed in papers [23], [24], [27] and [29], with the three latter papers specifically making use of regional array data. Seismic wave propagation and scattering are addressed in a number of papers, e.g. [13], [26], [28], [29], [30].