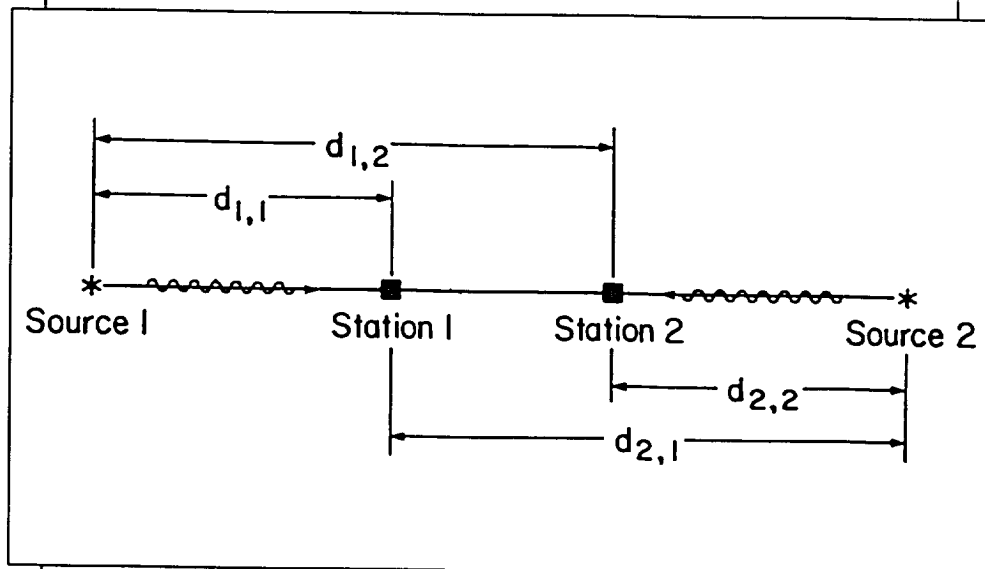


Chapter 7: Close-in Monitoring: Canadian Innovations That Work

Background

The past decade and a half have seen a strong surge of interest in reinvigorating the regional (close-in) seismic verification research in anticipation of a favourable international political atmosphere for the negotiation of treaties that are more stringent than the existing 150 kiloton TTBT. Recent developments conducive to the furtherance of test ban negotiations include the installation of in-country seismic stations in the Soviet Union and the Joint Verification Experiment which involved the detonations of two calibration nuclear explosions — one in Nevada and the other in East Kazakhstan. The University of Toronto's regional forensic research focuses upon path attenuation and site effects of P_n and L_g waves. In the case of P_n wave, we have also carried out studies aimed at gaining insights into the poorly understood behaviour of its propagation mode in the real Earth. Such studies are necessary to remove one of the best known sources of disparity among the published P_n attenuation measurements.

Figure 12: Source-station Configuration Used in the Reversed Two-station Method



This configuration is in map view. The basic concept of the method is given in the text.