回転３成分・並進３成分地震計による地震観測で 得られた地震記象

Seismograms obtained by three components rotation and translation seismometers

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回転成分地震計と普通の地震計による地震観測を行った．観測点は北大地震火山観測センターの日高支庁三石観測点（ＭＵＪ）である．現在観測は続けられている．

この観測で北海道南部に発生したＭ３－４（震源距離１００ｋｍ程度以内）の地震および遠地地震（モルッカ海Ｍ７．８）が観測された．

回転成分地震計の分解能は２ー１０Ｈｚで１μrad/s,これより低周波では２－４μrad/sである．回転成分の最大振幅は近地地震で３－７μrad/s, Ｍ７．８の遠地地震では，Ｐ波では３０，Ｓ波や表面波では６０μrad/sであった．これからも観測を継続してどの程度の回転成分が存在するのかを検討したい．

Seismograms observed by three components of the rotation and translation seismometers are shown by the poster session. Targets of the observation are to accumulate the fundamental information about the rotation movement in the earthquakes and to evaluate detectability S and surface waves. Rotation components seismometers were developed by using two pairs of translation seismometers having a natural frequency of 2 Hz which prolonged to 0.2 Hz by a equalizer electronics circuit. The rotation seismometer have a resolving power of 1 micro radian in the frequency band higher than 2Hz, and 2 to 4 micro radian in the lower frequency band. The seismometers were set up in the horizontal tunnel of Mitsuishi station operated by Hokkaido University (MUJ), on 17, November, 1998. Observation is now continued. Many seismograms were obtained by the six components observation. These contains local earthquakes whose Magnitudes were 2 to 5, and tele-seismic signals of large earthquake whose magnitude of 7.8. The amplitudes of the rotation components seismic signals distribute from 11 to 11111 micro rad/s. for local earthquakes. For the large earthquake M:7.8 (distance: 48deg.) , 1 and 3 rad/s for P and S phases were observed.