

PRELIMINARY ANALYSIS OF SITE AND BASIN EFFECTS FROM STRONG MOTION DATA OF TSMIP

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ABSTRACT

Taiwan Strong Motion Instrumentation Program (TSMIP) was operated by Seismology Center of Central Weather Bureau. About 1000 strong motion accelerographs will install in buildings and free-field sites for engineering and scientific studies within a five year period. Now the Taipei and Lanyang plain strong motion observation networks already have 31 and 25 stations, respectively, operated in the project of the first stage. Several earthquakes had been recorded by these two networks since the installation of accelerographs. The event that triggered more than ten stations on each network was used in this study. Two events with magnitude 5.7 and 5.6 are selected for the Taipei strong motion observation networks. Also two events with magnitude 5.6 and 5.2 are recorded by the Lanyang plain strong motion observation network that more than ten sites triggered. In this preliminary analysis, the characteristics of the ground motions are studied both in time and frequency domains for realizing the site and basineffects in the Taipei and Lanyang plain basins.