Development of borehole type strong-motion seismometer with small diameter

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For realistic prediction of strong-motion on the ground surface, it is important to research the relationship between amplification of strong-motion due to the surface sediment layers and their physical properties. For this research, strong-motion observation on the engineering bedrock is needed. The cost of boring basically decreases if a diameter of borehole is small. Therefore a seismometer with small diameter is desirable. Recently, the size of an acceleration sensor is small. So it is possible to manufacture a seismometer with small diameter.

National Research Institute for Earth Science and Disaster Prevention (NIED) develops a new borehole type strong-motion seismometer with small diameter in order to reduce the total cost of strong-motion observation on the engineering bedrock. We will introduce the outline of this study.