Seismological Station Network in Hungary (HU)

Geodetic and Geophysical Research Institute
Hungarian Academy of Sciences

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Seismological station network of Hungary

There are 15 digital seismological stations – 6 broadband and 9 short-period – in Hungary operated by two different institutions: GGRI and GeoRisk Earthquake Research Institute Ltd. The two institutions share all the measured data. Station PSZ is also belongs to the GEOFON network. Table 1 contains all the important information on the Hungarian seismic stations and Figure 1 shows the areal distribution of them.

Table 1 Seismic stations

<table>
<thead>
<tr>
<th>Code</th>
<th>Location</th>
<th>Latitude (N)</th>
<th>Longitude (E)</th>
<th>Elev. (m)</th>
<th>Station type (1)</th>
<th>Sensor type (2)</th>
<th>Recording equipment (3)</th>
<th>Recording (4)</th>
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<tbody>
<tr>
<td>BEHE</td>
<td>Becsehely</td>
<td>46.470 2</td>
<td>16.775 5</td>
<td>298</td>
<td>3C BB STS-2</td>
<td>PS-6-24+</td>
<td>SeisComP PC</td>
<td>C</td>
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<td>BUD</td>
<td>Budapest</td>
<td>47.483 6</td>
<td>19.023 9</td>
<td>196</td>
<td>3C BB STS-2</td>
<td>PS-6-24+</td>
<td>SeisComP PC</td>
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<tr>
<td>PENC</td>
<td>Penc</td>
<td>47.790 5</td>
<td>19.281 7</td>
<td>250</td>
<td>3C SP LE-3D</td>
<td>MARS-88/OC+</td>
<td>SeisComP PC</td>
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<td>PKS2</td>
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<td>MARS-88/OC</td>
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<td>PKS6</td>
<td>Bócsa</td>
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<td>Kunzentmiklós</td>
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<td>47.918 4</td>
<td>19.894 4</td>
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</table>
Data access

All six broadband stations and two of the short period stations (PENC and PKST) have on-line connection between the field site and the Budapest data center (BUD). Data are transferred via Internet with TCP/IP protocol. All stations use SeedLink protocol for data transfer. The BB stations have (near) real-time connection with an average data latency of several seconds. Data latency of short period stations are larger, it can be up to 30 minutes. Station RHK3 has an even greater latency (up to 60 minutes) as dial-up telephone connection is used.

There are local data recording at the remaining 6 SP stations. Data are collected on a monthly
basis.

**Data storage and availability**

Continuous data of stations BEHE, BUD, PKSM, PSZ, SOP and TRPA are archived at Budapest data centre. Data of stations BEHE, PKSM, PSZ and SOP are archived and distributed also by GEOFON.

Real-time data of our broadband stations are shared by ORFEUS, GEOFON and also by some partner institutions of neighboring countries.

At Budapest Data Centre several months of continuous waveform data are on-line and these are available publicly by the means of AutoDRM system (autodrm@seismology.hu).

Live seismograms are provided on the world-wide web. Data are archived on DVDs.

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*GGRI-HAS*