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Hungarian Earthquake Bulletin
2019

Tóth L., Mónus P., Kiszely M., Trosits D.

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Budapest

MAGYARORSZÁGI FÖLDRENGÉSEK ÉVKÖNYVE

HUNGARIAN EARTHQUAKE BULLETIN

2019

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Hátsó borító: Földrengések Magyarországon
Történelmi rengések: 456-1994 (szürke)
Műszeresen meghatározott rengések: 1995-2018 (rózsaszín)
Műszeresen meghatározott rengések: 2019 (piros)

Back cover page: Earthquakes in Hungary
Historical earthquakes: 456-1994 (grey)
Instrumental earthquakes: 1995-2018 (pink)
Instrumental earthquakes: 2019 (red)

FÖLDRENGÉS ADATOK FORRÁSAI / SOURCES OF EARTHQUAKE DATA:
Zsíros T.: Magyar földrengés katalógus (456-1995)
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TARTALOMJEGYZÉK

BEVEZETÉS 5

1. ÖSSZEFOGLALÁS 7

2. FÖLDRENGÉS MEGFIGYELŐ ÁLLOMÁSOK MAGYARORSZÁGON 9

Szélessávú lyukszeizmográf állomások 9

Szélessávú felszíni állomások 9

Rövidperiódusú felszíni állomások 9

GeoRisk adatközpont 9

HUN-RENG virtuális szeizmológiai hálózat 10

3. ESEMÉNYLISTA ÉS FÖLDRENGÉS FÉSZEKPARAMÉTEREK 19

A földrengés fészekparaméterek meghatározása 19

Sebességmodell 19

Földrengések listája 21

Robbantások listája 30

Fészekparaméterek és fázisadatok 47

4. JELENTŐS FÖLDRENGÉSEK 2019-BEN 221

2019. február 17. – Somogyszob 223

2019. február 22. – Tenk 225

2019. március 7. – Somogyszob 227

2019. május 17. – Budakeszi 229

2019. július 13. – Sóskút 231

2019. július 22. – Jászberény 233

2019. augusztus 11. – Tenk 235

2019. december 13. – Sóskút 237

HIVATKOZÁSOK 239

A MELLÉKLET: *Európai Makroszeizmikus Skála (EMS)* 241

CONTENTS

INTRODUCTION 6

1. SUMMARY 8

2. SEISMOGRAPH STATIONS IN HUNGARY 11
   - Broadband borehole stations 11
   - Broadband surface stations 11
   - Short period surface stations 11
   - GeoRisk Data Centre 11
   - HUN-RENG virtual seismic network 12

3. LIST OF ORIGINS AND HYPOCENTER PARAMETERS 20
   - Method for hypocenter parameter determination 20
   - Crustal velocity model 20
   - List of earthquakes 21
   - List of explosions 30
   - Phase data 48

4. SIGNIFICANT EARTHQUAKES IN 2019 222
   - 17 February 2019 – Somogyszob 223
   - 22 February 2019 – Tenk 225
   - 7 March 2019 – Somogyszob 227
   - 17 May 2019 – Budakeszi 229
   - 13 July 2019 – Sóskút 231
   - 22 July 2019 – Jászberény 233
   - 11 August 2019 – Tenk 235
   - 13 December 2019 – Sóskút 237

REFERENCES 239

APPENDIX A: *European Macroseismic Scale (EMS)* 242

BEVEZETÉS

A Pannon-medencében a földrengés aktivitás a lemezperemi területekhez képest mérsékelt, a rengések epicentrumainak eloszlása pedig első pillantásra rendszertelennek látszik. Nehéz eldönteni, hogy a földrengések izolált területeken, vagy szeizmikusan aktív vonalak mentén keletkeznek. Mindenesetre felismerhető néhány terület, ahol viszonylag gyakran fordult elő a múltban földrengés. Ilyenek pl. Eger és környéke, ahol 70 év alatt legalább 16 földrengés és több mint 50 nagyobb utórengés történt. Komárom és Mór környékén, Jászberény, Kecskemét és Dunaharaszti közelében szintén jelentős volt az aktivitás egy-egy bizonyos időszakban. Az alacsony szeizmicitás nem feltétlenül jelenti a földrengések méretének csekélységét: komoly épületkárokat okozó földrengésekről van szó, néhány esetben talajfolyósodást is okozó gyorsulásokkal (pl. 1763 Komárom, M 6.2; 1911 Kecskemét, M 5.6; 1956 Dunaharaszti, M 5.6), esetleg a felszínen is megjelenő töréssel (pl. 1834 Érmellék, M 6.2). Ezek a példák azt mutatják, hogy 6.0-6.5 magnitúdójú rengések lehetségesek, de nem gyakoriak a Pannon-medencében (Tóth et al., 2002a).

A földtudományi kutatás fontos eleme a szeizmicitás vizsgálata, annak megismerése, hogy milyen gyakorisággal, hol és mekkora földrengések keletkeznek, továbbá melyek azok a szeizmotektonikai folyamatok, melyek a földrengéseket létrehozzák.

Az általános ismeretszerzésen túlmenően a földrengés elleni védekezéshez is fontos segítséget nyújt a szeizmicitás pontos ismerete. Egy terület földrengés veszélyeztetettségét csak komplex szeizmológiai, geofizikai, geológiai ismeretek alapján lehet meghatározni. A legfontosabb információ, mely mennyiségileg meghatározza a földrengésveszélyességet, a terület földrengés története, illetve a jelenkori rengések ismerete. Ehhez nyújt kardinális fontosságú segítséget a földrengés monitorozás, a földrengések megfigyelése, mérése és paramétereinek meghatározása.

Magyarországon a földrengésmérő állomások száma és minősége 1995-ben érte el azt a szintet, hogy a lakosság által érzékelt valamennyi rengést a hálózat nagy valószínűséggel detektálja. Ez nagyrészt annak a szeizmikus megfigyelő hálózatnak volt köszönhető, melyet a Paksi Atomerőmű létesített az atomerőmű telephely tágabb környezetében. Ekkor vált lehetővé a lokális földrengések hipocentrumának számítása. A mérőhálózat 2016-ban ismét nagyot fejlődött, öt lyukszeizmográf állomás épült és kezdte meg működését.

Jelen kiadványunk célja és tartalma pontosan az, amit a címe is jelez: évkönyv, melyben megtalálható minden olyan adat és ismeret, melyet az év során a magyarországi földrengésekkel kapcsolatban összegyűjtöttünk. A célterület a 45.5-49.0 É szélesség és 16.0-23.0 K hosszúság által határolt földrajzi tartomány. Reméljük, hogy hasznát látják munkánknak mindazok, akik földtudományi kutatásaikban felhasználói a szeizmicitás adatoknak, de azok is, akik csupán egy-egy földrengéssel kapcsolatos kérdésükre keresnek választ kiadványunkban.

INTRODUCTION

Seismicity in the Pannonian basin is relatively low comparing to the peripherals and the distribution of earthquake epicenters shows a rather scattered pattern at the first glance. It is particularly difficult to decide whether the epicenters occur at isolated places or along elongated zones however, at several single places earthquakes occur repeatedly. For example, near to Eger (47.9 N; 20.4 E) at least sixteen earthquakes with more than fifty greater aftershocks occurred over a time interval of some 70 years. Komárom and Mór area (47.4-47.8 N; 18.2 E), Jászberény (47.5 N; 20.0 E), Kecskemét (46.9 N; 19.7 E) and Dunaharaszti (47.4 N; 19.0 E) also produced significant activity over a certain but limited period of time. Moderate seismicity does not necessarily mean moderate size of earthquakes: reports of major earthquakes often refer to heavy building damage, liquefaction (e.g. 1763 Komárom earthquake, M 6.2; 1911 Kecskemét earthquake, M 5.6; 1956 Dunaharaszti earthquake, M 5.6) and sometimes the possibility of surface fault rupture (e.g. 1834 Érmellék earthquake, M 6.2). These observations indicate that magnitude 6.0-6.5 earthquakes are possible but not frequent in the Pannonian basin (Tóth et al., 2002b).

The study of the recent seismicity is an important element of seismotectonic research. Earthquakes represent the sudden release of slowly accumulated strain energy and hence provide direct evidence of active tectonic processes. However, low and moderate seismicity at intraplate areas generally precludes reliable statistical correlation between epicenters and geological features.

Moreover, as one of the chief contributor to seismic hazard at a given area, detailed knowledge of seismicity also plays an important role in earthquake risk reduction. To be useful, accurately located earthquakes are required. While good information about larger historical earthquakes exists for about the past few hundred years, these are not well enough located. Only modern seismic monitoring networks, capable of locating small magnitude local earthquakes provide the necessary information to close this knowledge gap. The developing database of well-located earthquakes can be used, in one hand, to resolve the tectonic framework and required on the other hand to refine our understanding of the level of seismic risk.

1995 was a milestone in the history of Hungarian seismological observations as the Paks Nuclear Power Plant Ltd. installed a network of high quality digital seismographs. For the first time, this network made it possible to detect and locate small magnitude local seismic events in most parts of the country. In 2016, the network significantly developed again, as five new borehole stations were built and began operations.

The present Earthquake Bulletin is a united annual summary report of all Hungarian earthquake monitoring projects. The information in the Bulletin is based on all available earthquake related data provided by different organizations. The geographic region covered is bounded by latitudes 45.5-49.0 N and longitudes 16.0-23.0 E.

1.

ÖSSZEFOGLALÁS

A 2019. év szeizmikus szempontból összességében átlagosan aktív időszaknak tekinthető Magyarországon. Az érezhető rengések száma is az átlagos körüli, nyolc rengés volt érezhető. Az év folyamán 1090 szeizmikus eseményről szereztünk tudomást a 45.5-49.0 É szélességi és 16.0-23.0 K hosszúsági koordináták által határolt területen, amelyek közül 316 volt természetes eredetű földrengés, 774 pedig robbantás.

Az észlelt földrengések mérete a $-0.2 \leq M_L \leq 4.1$ lokális magnitúdó tartományba esett. A fészekmélység minden esetben sekély (0 – 30 km), jellemzően 6 – 12 km közötti.

A kőbányarobbantások szeizmikus magnitúdói a $0.3 \leq M_L \leq 2.7$ tartományban voltak, a fészekmélységük pedig minden esetben nulla.

Az évben összesen nyolc olyan földrengés volt, melyet a lakosság is érzett.

A legnagyobb műszeresen meghatározott magnitúdójú rengés 4.1 M_L, míg a legnagyobb földrengés intenzitás, melyet Magyarország területéről az év folyamán jelentettek 5 EMS fokozatú volt. Földrengés következtében épületkárok nem keletkeztek.

A rengések mindegyike többé-kevésbé ismert forrászónához köthető. A Vértes hegységben, a Komárom – Berhida közé eső területen, a Móri-árok forrászónában most is számos földrengést regisztráltunk. Ennek egyik, nem szeizmotektonikai magyarázata az állomáshálózat fokozott érzékenysége ezen a területen.

Február 17-én délután 2.7 M_L magnitúdójú földrengés pattant ki Somogy megyében, Somogyszob közelében. A rengés az epicentrum térségében érezhető volt, intenzitása elérte a 4 EMS fokot.

Február 22-én este 2.2 M_L magnitúdójú földrengés pattant ki Heves megyében, Tenk térségében. A rengés az epicentrum térségében érezhető volt, intenzitása elérte a 4 EMS fokot.

A február 17-i rengést követően március 7-én este újabb, 4.0 M_L magnitúdójú földrengés volt érezhető Somogy megyében, Somogyszob közelében. A rengés intenzitása az epicentrum térségében elérte az 5 EMS fokot.

Május 17-én reggel 2.7 M_L magnitúdójú földrengés pattant ki Budakeszi közelében. A rengés az epicentrum térségében érezhető volt, intenzitása elérte a 4 EMS fokot.

Július 13-án 2.5 M_L magnitúdójú földrengést éreztek Sóskút – Budaörs környékén. A rengés intenzitása 4 EMS fokra becsülhető az epicentrum környezetében.

Egy kicsi, 2.2 M_L magnitúdójú földrengést éreztek Jászberény térségében helyi idő szerint július 23-án éjjel. A rengés intenzitása 3-4 EMS fokra becsülhető az epicentrum környezetében.

A február 22-i 2.2 M_L magnitúdójú földrengést követően augusztus 11-én éjjel 4.1 M_L magnitúdójú földrengést jeleztek ismét Heves megyéből, Tenk térségéből. A rengés intenzitása 4-5 EMS fokra becsülhető az epicentrum környezetében.

Néhány hónappal a július 13-i 2.5 M_L magnitúdójú földrengést követően december 13-án 2.9 M_L magnitúdójú földrengést jeleztek ismét Sóskút - Törökbálint térségéből. A rengés intenzitása 4 EMS fokra becsülhető az epicentrum környezetében.

1.

SUMMARY

2019 was an average active year for Hungarian seismicity. The number of felt earthquakes was eight, also around the average. Out of the 1090 seismic events located within the area bounded by latitudes 45.5-49.0 N and longitudes 16.0-23.0 E, 316 were identified as natural earthquakes and 774 were known as explosions, mostly quarry blasts.

The magnitude of the earthquakes was in the range of $-0.2 \leq M_L \leq 4.1$. Each of the earthquakes had shallow (0 – 30 km) focal depth, typically in the range of 6 – 12 km.

The seismic magnitude of the quarry blasts was in the range of $0.3 \leq M_L < 2.7$ with zero focal depth.

During the year, eight earthquakes were reported as felt.

The highest magnitude assigned to a shock was 4.1 M_L while the highest intensity reported during the year was 5 EMS. No building damage was reported during the year.

On February 17th, a 2.7 M_L magnitude earthquake occurred in Somogy County, near to Somogyszob. The quake was reported felt from the epicentral area. The maximum intensity was estimated around 4 EMS at the epicentral area.

In the evening of February 22nd, a 2.2 M_L magnitude earthquake occurred in the surroundings of Tenk, Heves County. The quake was reported felt from the epicentral area. The maximum intensity was estimated around 4 EMS at the epicentral area.

Following the February 17th earthquake, another 4.0 M_L quake was reported felt from Somogy County, near to Somogyszob. The quake was somewhat larger than the previous one, the maximum intensity was estimated around 5 EMS at the epicentral area.

On May 17th, a 2.7 M_L magnitude earthquake occurred near to Budakeszi. The quake was reported felt from the epicentral area. The maximum intensity was estimated around 4 EMS at the epicentral area.

In July 13th, a 2.5 M_L magnitude earthquake was felt and reported at Sóskút – Budaörs area. The maximum intensity was estimated 4 EMS.

A small 2.2 M_L magnitude earthquake was felt at Jászberény area around midnight local time of July 23rd. The maximum intensity was estimated 3-4 EMS.

Following the February 22nd 2.2 M_L earthquake, another 4.1 M_L quake was reported felt from Tenk, Heves County in 11th of August. The quake was somewhat larger than the previous one, the maximum intensity was estimated around 4-5 EMS at the epicentral area.

A few months after the July 13th 2.5 M_L earthquake, another 2.9 M_L quake was reported felt from Sóskút – Törökbálint area in 13th of December. The quake was somewhat larger than the previous one, the maximum intensity was estimated around 4 EMS at the epicentral area.

2.

FÖLDRENGÉS MEGFIGYELŐ ÁLLOMÁSOK MAGYARORSZÁGON

2019-ben 32 állandó és elérhető szeizmográf állomás működött Magyarországon, melyek közül öt lyukszeizmográf, huszonhét felszíni állomás. Az állomások közül tizenhetet a GeoRisk Földrengés Mérnöki Iroda Kft., tizenötöt pedig a CSFK Geodéziai és Geofizikai Intézet (CSFK GGI) üzemeltetett (2.1. Táblázat és 2.1. ábra).

Szélessávú lyukszeizmográf állomások

Az év folyamán 5 modern szélessávú lyukszeizmográf állomás működött (PKB1, PKB2, PKB3, PKB4, PKB5). Az állomásokon az érzékelő 3 komponenses szélessávú Nanometrics Trillium Posthole szeizmométer, mely 150 m-es béléscsövezett fúrólyuk aljára van telepítve. A felszíni aknában elhelyezett digitalizáló, adatgyűjtő és kommunikációs egység Nanometrics Centaur CTR-3. Mindegyik állomás internet összeköttetéssel rendelkezik.

Szélessávú felszíni állomások

2019-ben 15 szélessávú felszíni szeizmológiai állomás működött (ABAH, AMBH, BEHE, BSZH, BUD, CSKK, EGYH, KOVH, LTVH, MORH, MPLH, PSZ, SOP, TIH, TRPA). Az állomások nagy részénél az érzékelő 3 komponenses szélessávú Streckeisen STS-2, illetve STS-2.5 szeizmométer; az érzékelő jele EarthData PS-6-24 digitalizáló egységen át jut a SeisComp szoftverrel felszerelt adatgyűjtő számítógépre. Az AMBH, CSKK, EGYH, LTVH és TIH állomásokon Güralp CMG-3T szeizmométer és Güralp CMG-DM24S3-EAM adatgyűjtő egység található. Mindegyik állomás internet összeköttetéssel rendelkezik.

Rövidperiódusú felszíni állomások

A 13 rövidperiódusú felszíni állomás közül tíz teljesen azonos mérőeszközzel van felszerelve. Ezeken Güralp CMG-40T rövidperiódusú, 3 komponenses szeizmométer és Güralp CMG-DM24S3-EAM digitalizáló és adatgyűjtő működik, folyamatos regisztrálással. Egy állomáson (CSKK) Kinemetrics SS-1 szenzor és Güralp CMG-DM24S3-EAM digitalizáló és adatgyűjtő működik. További két állomáson (NADP és PNNH) pedig Lennartz LE-3D szenzor, MARS-88MC digitalizáló és SeisComP PC. Mindegyik állomás internet összeköttetéssel rendelkezik.

GeoRisk adatközpont (www.foldrenges.hu)

Az összes mérőállomáson regisztrált adatot egy felhő alapú adatközpontban gyűjtjük és dolgozzuk fel. Az adatok közel valós időben, egy erre a célra kifejlesztett protokoll (SeedLink) felhasználásával jutnak el az adatközpontba. Az adatok átlagos késése a valós időhöz képest 10 másodperc körüli. Minden állomás digitális adataiból napi szeizmogramok készülnek kép formátumban. A képi szeizmogramok egyrészt az érdeklődők tájékoztatását, másrészt a működés ellenőrzését is szolgálják. Ezek a szeizmogramok is közel valós idejűek.

Az események hullámfázisainak körültekintő manuális kimérése alapján állítjuk össze havonta a fázisadatokat (kimérési adatokat) tartalmazó jelentést. A fázisadatok felhasználásával – a saját adatokat kiegészítve a szomszédos országok szeizmológiai intézményeinek hasonló adataival (2.2. ábra) – havonta eseménylista készül (*Havi Jelentés* és *Havi Földrengés Tájékoztató*), mely a helyi és regionális földrengések hipocentrum adatait tartalmazza.

A mérési adatok, szeizmogramok és a kiértékelés további eredményei nagyrészt nyilvánosan elérhetők az interneten is a *www.foldrenges.hu* oldalon.

Átlagos zaj- (talajnyugtalanság) viszonyokat feltételezve a magyarországi szeizmológiai hálózat jelenlegi észlelési képessége M_L=1.0-2.0 magnitúdó körül van. Az ország középső részén lényegesen alacsonyabb, a határok környékén kissé magasabb az érzékenységi küszöb. Ez azt jelenti, hogy a lakosság által érzékelt valamennyi rengést a hálózat nagy valószínűséggel detektálja.

HUN-Reng virtuális szeizmológiai hálózat

A kommunikáció fejlődése, a valós idejű adatátvitel és az azonos adatátviteli protokoll (SeedLink) Európa-szerte elterjedt használata lehetővé tette, hogy idegen állomások adatait is fogadjuk közel valós időben ugyanúgy, mint a saját állomásainkét (2.2. Táblázat). Az összes elérhető hazai és külföldi állomások mérési adatainak felhasználásával a földrengések paraméterei még pontosabban, megbízhatóbban számíthatók ki. Ezen kívül a nagyszámú állomás adatához való valós idejű hozzáférés lehetővé tette egy automatikus földrengésjelző rendszer elindítását is. Ez a rendszer automatikusan képes felismerni a földrengéseket, és azok paramétereit néhány percen belül kiszámítja, térképen és listán automatikusan meg is jeleníti. Az online földrengés információ elsősorban gyors tájékoztatásul szolgál (*www.foldrenges.hu)*.

2.

SEISMOGRAPH STATIONS IN HUNGARY

In 2019, there were 32 permanent seismograph stations running and available in Hungary: five borehole stations and twenty seven surface stations. Seventeen of the permanent stations were operated by GeoRisk Earthquake Engineering Ltd. and fifteen of them by Geodetic and Geophysical Institute, Research Centre for Astronomy and Earth Sciences (CSFK GGI). (Table 2.1 and Fig. 2.1)

Broadband borehole stations

During the year, five modern broadband borehole stations were in operation (PKB1, PKB2, PKB3, PKB4, PKB5). Nanometrics Trillium Posthole 3-component broadband seismometers are installed in the bottom of a 150 m deep steel cased borehole at the stations. Nanometrics Centaur CTR-3 digitizers and acquisition systems, along with the communication units are arranged in a small pit. Each station has a connection to the Internet.

Broadband surface stations

Fifteen broadband surface stations (ABAH, AMBH, BEHE, BSZH, BUD, CSKK, EGYH, KOVH, LTVH, MORH, MPLH, PSZ, SOP, TIH, TRPA) were running during the year. Most of these stations have Streckeisen STS-2 or STS-2.5 very broadband seismometers as sensors and EarthData PS-6-24 digitizer. Linux PC's with SeisComP software have been used as data acquisition systems. Five stations (AMBH, CSKK, EGYH, LTVH and TIH) are equipped with Güralp CMG-3T seismometer and Güralp CMG-DM24-S3-EAM data acquisition module. Each station has a connection to the Internet.

Short period surface stations

Out of the thirteen short period stations ten have have similar hardware. These stations are equipped with Güralp CMG-40T short period seismometers and Güralp CMG-DM24S3-EAM digital acquisition system. One of the stations, CSKK has Kinemetrics short period SS-1 sensors, and Güralp CMG-DM24S3-EAM digital acquisition system for recording and communication with the Data Centre. Two stations, NADP and PNNH have Lennartz LE-3D sensor, MARS-88MC digital acquisition system and SeisComP PC for recording. Continuous data are recorded at each short period station. Each station has a connection to the Internet.

GeoRisk Data Centre (www.foldrenges.hu)

All recorded data from each station are transmitted to and processed at a cloud based *Data Centre*. Using digitally recorded data, analogue "live seismograms" are calculated for each station. The main purposes of the "live seismograms" are feeding public interests in one hand, and rapid visualization of the operational status and quality check of the stations on the other.

A careful manual offline analysis is used for event identification and picking the phases on each recorded seismogram. Merging the phase data of the Hungarian network and the same kind of available data sets from neighboring countries, preliminary event lists are calculated on monthly schedule. Based on technical and operational statistics of the stations, list of local and regional seismic events and their hypocenter information, *Monthly Reports* are compiled.

Data that are collected by the *Data Centre* are published in a variety of formats on the internet at *www.foldrenges.hu*.

The estimated detection capabilities of the present network with average noise conditions, supposing that at least four stations is needed for origin determination, is typically around 1.0-2.0 M_L, somewhat lower in the middle of the country and a little higher towards the border regions. This means that in most parts of the country it is very unlikely that felt events go undetected.

HUN-Reng Virtual Seismic Network

Development in communication technology and standardized communication protocols, software packages made available to access near real time data of stations beyond the domestic network. SeedLink and SeisComP developed at GEOFON became a kind of standard all over Europe. The larger pool of data provided by an extended, "virtual network" of seismic stations helps to have faster and more accurate earthquake locations and parameter determinations. In addition, near real time access to data from large number of stations makes possible to operate automatic rapid earthquake alarm systems. Automatically generated earthquake lists and epicenter maps are the main product of such systems (*www.foldrenges.hu*). The present configuration of the *HUN-Reng* virtual seismic network is shown in Table 2.2.

2.1. Táblázat Magyarországi szeizmológiai állomások, műszerek és alapkőzet

Table 2.1. Seismic stations in Hungary, instrumentation and lithology

Kód Helység Code Location	Szélesség Latitude (N)	Hosszúság Longitude (E)	Magasság Elevation (m)	Alapkőzet Foundation	Állomás típusa Station type (1)	Érzékelő típusa Sensor type (2)	Adatgyűjtő típusa Recording equipment (3)	Szerv. Org. (4)
ABAH Abaújkér	48.2961	21.2395	173	kőzet rock	3C BB	STS-2.5	CMG-DM24S3-EAM	GGI
AMBH Ambrózfalva	46.3501	20.7258	91	üledék alluvium	3C BB	CMG-3T	CMG-DM24S3-EAM	GGI
BEHE Becsehely	46.4704	16.7757	298	üledék alluvium	3C BB	STS-2	PS-6-24+ SeisComP PC	GGI
BSZH Besenyszög	47.2996	20.2670	82	üledék alluvium	3C BB	STS-2.5	PS-6-24 + SeisComP PC	GGI
BUD Budapest	47.4836	19.0239	196	dolomit dolomite	3C BB	STS-2	PS-6-24+ SeisComP PC	GGI
CSKK Csókakő	47.3631	18.2605	319	dolomit dolomite	3C BB	CMG-3T	CMG-DM24S3-EAM	GGI
EGYH Egyházaskesző	47.4171	17.3318	225	kőzet rock	3C BB	CMG-3T	CMG-DM24S3-EAM	GGI
KOVH Kővágótöttös	46.0883	18.0999	270	mészkő limestone	3C BB	STS-2.5	PS-6-24 + SeisComP PC	GGI
LTVH Létavértes	47.3849	21.9007	121	homok sand	3C BB	CMG-3T	CMG-DM24S3-EAM	GGI
MPLH Magyarpolány	47.1702	17.5395	307	kőzet rock	3C BB	STS-2.5	PS-6-24 + SeisComP PC	GGI
MORH Mórágy	46.2149	18.6435	135	gránit granite	3C BB	STS-2	PS-6-24 + SeisComP PC	GGI
NADP* Nadap	47.2577	18.6176	210	kőzet rock	3C SP	LE-3D	MARS-88MC+ SeisComP PC	GR
PENC Penc	47.7905	19.2817	250	üledék alluvium	3C SP	CMG-40T	CMG-DM24S3-EAM	GR
PKS2 Kecel	46.4920	19.2131	106	homok sand	3C SP	CMG-40T	CMG-DM24S3-EAM	GR
PKB1 Előszállás	46.7843	18.7922	178	üledék alluvium	3C BB	TC20-PH2	CTR-3	GR
PKB2 Akasztó	46.6744	19.2419	92	üledék alluvium	3C BB	TC20-PH2	CTR-3	GR
PKB3 Császártöltés	46.4238	19.1949	110	üledék alluvium	3C BB	TC20-PH2	CTR-3	GR
PKB4 Kölesd	46.4963	18.6038	172	üledék alluvium	3C BB	TC20-PH2	CTR-3	GR
PKB5 Pusztahencse	46.5950	18.7356	184	üledék alluvium	3C BB	TC20-PH2	CTR-3	GR
PKS6 Bócsa	46.5998	19.5645	120	homok sand	3C SP	CMG-40T	CMG-DM24S3-EAM	GR
PKS7 Kunszentmiklós	47.0473	19.1609	95	agyag mud	3C SP	CMG-40T	CMG-DM24S3-EAM	GR
PKS9 Tamási	46.5870	18.2789	240	lösz loess	3C SP	CMG-40T	CMG-DM24S3-EAM	GR
PKSG Gánt	47.3918	18.3907	200	dolomit dolomite	3C SP	CMG-40T	CMG-DM24S3-EAM	GR
PKSM Mórágy	46.2119	18.6413	170	gránit granite	3C SP	CMG-40T	CMG-DM24S3-EAM	GR

Kód Helység Code Location	Szélesség Latitude (N)	Hosszúság Longitude (E)	Magasság Elevation (m)	Alapkőzet Foundation	Állomás típusa Station type (1)	Érzékelő típusa Sensor type (2)	Adatgyűjtő típusa Recording equipment (3)	Szerv. Org. (4)
PKSN Nyárlőrinc	46.8970	19.8667	110	homok sand	3C SP	CMG-40T	CMG-DM24S3-EAM	GR
PKST Tés	47.2590	18.0343	473	dolomit dolomite	3C SP	CMG-40T	CMG-DM24S3-EAM	GR
PKSV Villány	45.8885	18.2521	420	mészkő limestone	3C SP	CMG-40T	CMG-DM24S3-EAM	GR
PNNH** Pannonhalma	47.5525	17.7611	280	lösz loess	3C SP	LE-3D	MARS-88MC+ SeisComP PC	GR
PSZ Piszkéstető	47.9184	19.8944	940	andezit andesite	3C BB	STS-2	PS-6-24 + SeisComP PC	GEOFON /GGI
SOP Sopron	47.6833	16.5583	260	gneisz gneiss	3C BB	STS-2	PS-6-24 + SeisComP PC	GGI
TIH Tihany	46.9001	17.8877	183	kőzet rock	3C BB	CMG-3T	CMG-DM24S3-EAM	GGI/MFGI
TRPA Tarpa	48.1304	22.5391	113	andezit andesite	3C BB	STS-2	PS-6-24 + SeisComP PC	GGI

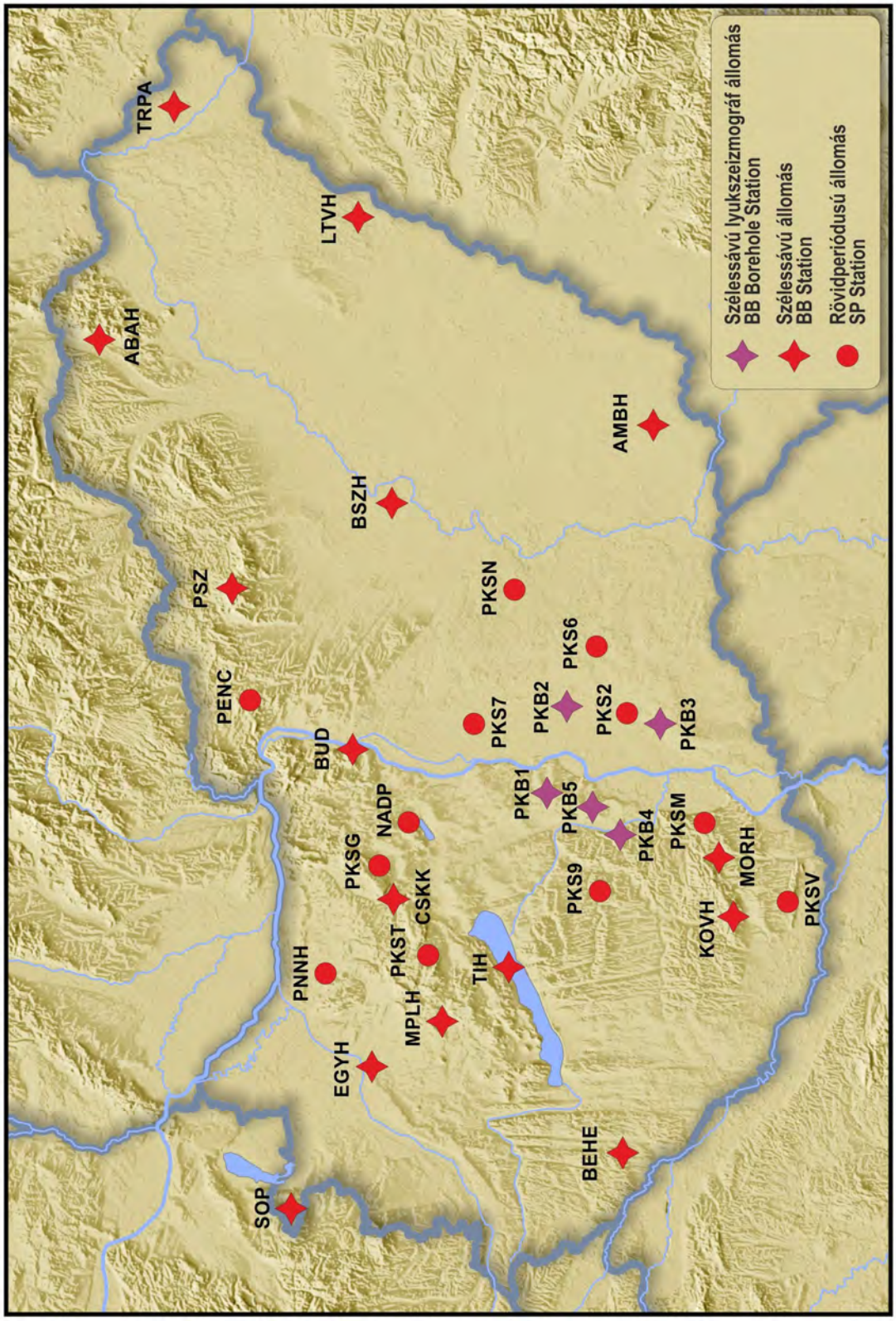
* Működés vége / Close date: 2019.08.15.
** Működés vége / Close date: 2019.03.01.

(1) 3C – 3 komponenses szeizmométer / three component seismometer
SP – rövid periódusú szeizmométer / short period seismometer
BB – széles sávú szeizmométer / broad band seismometer

(2) STS-2 / STS-2.5 – Streckeisen széles sávú szeizmométer / Streckeisen broadband seismometer
CMG-40T – Güralp rövidperiódusú szeizmométer / Güralp short period seismometer
CMG-3T – Güralp széles sávú szeizmométer / Güralp broad band seismometer
TC20-PH2 – Nanometrics Trillium széles sávú lyukszeizmométer /
Nanometrics Trillium Compact Posthole broadband seismometer
LE-3D – Lennartz 3 komponenses 1Hz-es geofon / Lennartz three directional 1Hz geophone

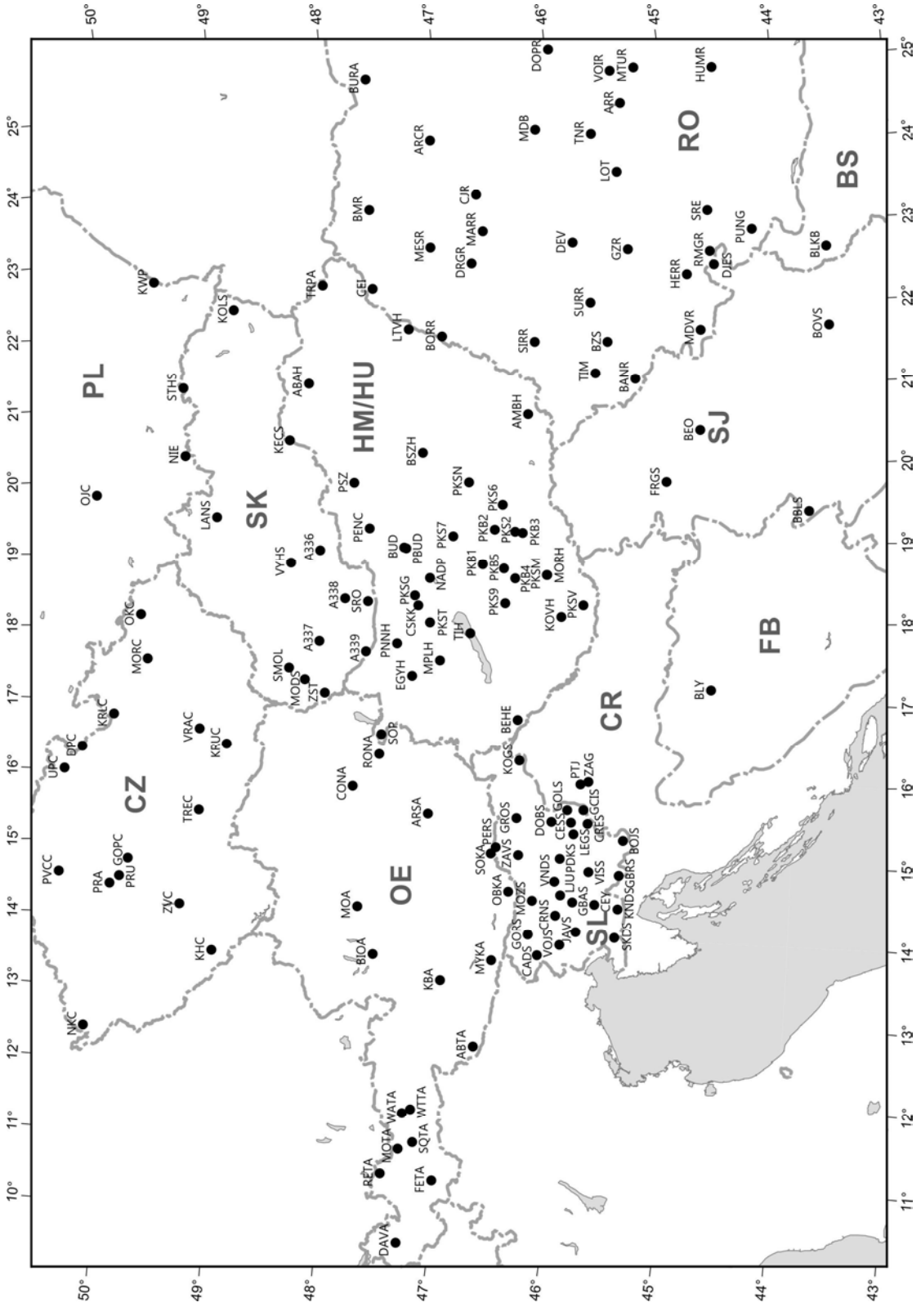
(3) PS-6-24 – Earth Data digitalizáló / Earth Data digitizer
CMG-DM24S3-EAM – Güralp adatgyűjtő / Güralp data acquisition module
SeisComP – GEOFON Seismological Communication Processor
CTR-3 – Nanometrics Centaur adatgyűjtő / Nanometrics Centaur data acquisition module
MARS-88MC – Lennartz adatgyűjtő / Lennartz data acquisition system

(4) GGI – CSFK Geodéziai és Geofizikai Intézet / Geodetic and Geophysical Institute, CSFK
GR – GeoRisk Földrengés Mérnöki Iroda Kft. / GeoRisk Earthquake Engineering Ltd.
GEOFON – GEOFON Program GFZ Potsdam / GEOFON Program GFZ Potsdam
MFGI – Magyar Földtani és Geofizikai Inzézet / Geological and Geophysical Institute of Hungary



2.1. ábra Szeizmológiai állomások Magyarországon 2019-ben (részletek: 2.1. Táblázat)

Figure 2.1. Seismograph stations in Hungary in 2019 (See Table 2.1. for details)



2.2. ábra A hipocentrum meghatározáshoz használt szeizmológiai állomások

Figure 2.2. Seismograph stations used for hypocenter determination

2.2. Táblázat HUN-RENG virtuális szeizmológiai hálózathoz felhasznált fizikai hálózatok
Table 2.2. Physical networks used in HUN-RENG virtual seismic network

Hálózat kódja* Network code*	Az üzembentartó hálózat Operating network
CU	CariUSGS Caribbean Network USGS, Golden, CO
CZ	Czech Seismic Network Geophysical Institute, Czech Academy of Sciences
FB	Seismic Network of Federation of Bosnia and Herzegovina
GE	GEOFON GEOForschungsNetz (Geo Research Network)
GT	Global Telemetered Southern Hemisphere Network USGS Albuquerque Seismological Laboratory
HM	GeoRisk Earthquake Engineering, Hungary
HU	Hungarian National Seismological Network Institute of Geodesy and Geophysics, Research Centre for Astronomy and Earth Sciences
II	IRIS/IDA Network University of California, Scripps Institute of Oceanography
IU	IRIS/USGS Network USGS Albuquerque Seismological Laboratory
JP	Japan Meteorological Agency Seismic Network Japan Meteorological Agency Seismic, Tokyo Japan
MK	Seismological Observatory Skopje, Republic of Macedonia (MK)
MN	MEDNET Instituto Nazionale di Geofisica, Italy
MY	Malaysian National Seismic Network Malaysian Meteorological Service
NZ	New Zealand National Seismograph Network Institute of Geological & Nuclear Sciences, Wellington, New Zealand
OE	Austrian Seismic Network ZAMG - Central Institute for Meteorology and Geodynamics
PL	Polish Seismological Network Polish Academy of Sciences, Warsaw
RO	Romanian Seismic Network National Institute for Earth Physics, Romania
SJ	Serbian Seismological Network Seismological Survey of Serbia
SK	Slovak National Seismic Network Geophysical Institute, Slovak Academy of Sciences
SL	Slovenia Seismic Network Slovenia Geological Survey, Ljubljana

*FDSN (International Federation of Digital Seismograph Networks) kód

3.

ESEMÉNYLISTA

ÉS

FÖLDRENGÉS FÉSZEKPARAMÉTEREK

A FÖLDRENGÉS FÉSZEKPARAMÉTEREK MEGHATÁROZÁSA

A fészekparaméterek rutinszerű kiszámításához a HYPO71PC programot használtuk (Lee and Lahr, 1975). A kimérés és magnitúdó meghatározás a K. Stammler által készített SeismicHandler program segítségével történt.

A fészekparaméterek meghatározásánál mind a magyarországi, mind a szomszédos országok állomásainak adatait felhasználtuk. A számításnál az egyes állomások kimérési adatait az epicentrumtól való távolsággal fordított arányban súlyoztuk. Néhány esetben, amikor elegendő P fázis adat állt rendelkezésre, az S fázis adatokat nem használtuk fel.

SEBESSÉGMODELL

A számításnál felhasznált 3 rétegű sebességmodell több száz helyi és közeli földrengés kéregfázis adatain alapul (Mónus, 1995).

Sebesség (v_P) [km/s]	*Mélység [km]*	*Vastagság [km]*	v_P/v_S
5,60	0,0	20,0	1,78
6,57	20,0	11,0	
8,02	31,0	∞	

3.

LIST OF ORIGINS AND HYPOCENTER PARAMETERS

METHOD FOR HYPOCENTER PARAMETER DETERMINATION

HYPO71PC (Lee and Lahr, 1975) was used for the routine calculation of hypocenter parameters. SeismicHandler software package by K. Stammler has been used for phase picking and magnitude determination.

The hypocenter parameters have been calculated using phase readings of seismological stations from Hungary and from the adjoining countries. However, a distance weighting has been applied, phase data from stations with epicenter distance greater than 450 km have been weighted out. In some cases, when sufficient number of P readings were available, S phase readings were not used in the calculations.

CRUSTAL VELOCITY MODEL

The three-layer crustal velocity model used in the hypocenter calculations has been derived from crustal phase travel times of several hundreds of local earthquakes (Mónus, 1995).

Velocity (v_P) [km/s]	*Depth [km]*	*Thickness [km]*	v_P/v_S
5.60	0.0	20.0	1.78
6.57	20.0	11.0	
8.02	31.0	∞	

FÖLDRENGÉSEK LISTÁJA / LIST OF EARTHQUAKES

Nap	Kipattanási idő UTC óó pp mp	Földrajzi koordináták Lat	Long	Mélys. (km)	ML	I_{MAX} (EMS)	Helyszín
Day	**Origin time UTC hr mn sec**	**Geographic coordinates Lat**	**Long**	**Depth (km)**	**ML**	**I_{MAX} (EMS)**	**Locality or Region**
JANUÁR / JANUARY, 2019							
05	7:27:10.2	47.118N	21.211E	1	2.3	-	Füzesgyarmat
05	7:34:27.3	47.088N	21.129E	20	1.9	-	Füzesgyarmat
06	6:46:18.6	46.600N	22.096E	7	2.2	-	Romania
07	2:05:47.6	46.109N	21.996E	3	2.0	-	Romania
08	1:57:03.3	46.333N	17.590E	7	1.2	-	Gige
09	23:43:44.8	47.845N	18.694E	18	1.1	-	Slovakia
11	22:22:22.0	48.747N	18.819E	16	1.9	-	Slovakia
11	23:10:15.7	45.820N	17.349E	10	1.7	-	Croatia
12	21:05:16.6	48.659N	19.415E	16	1.4	-	Slovakia
13	20:27:17.4	47.284N	18.261E	10	1.0	-	Fehérvárcsurgó
14	9:19:15.2	45.534N	17.917E	16	1.5	-	Croatia
15	1:08:02.4	47.372N	18.253E	2	0.4	-	Mór
15	6:54:49.1	46.092N	16.368E	11	2.0	-	Croatia
15	6:56:10.6	46.104N	16.378E	10	1.6	-	Croatia
18	4:40:50.8	46.193N	16.532E	9	2.1	-	Croatia
18	5:47:22.5	46.175N	16.562E	10	2.1	-	Croatia
19	6:35:27.4	47.353N	18.267E	7	1.3	-	Csókakő
21	15:10:50.4	46.965N	18.552E	8	1.2	-	Sárszentágota
22	8:10:37.3	45.602N	17.782E	10	1.4	-	Croatia
22	19:34:06.1	46.977N	17.524E	14	1.5	-	Taliándörögd
23	13:37:58.5	46.135N	18.071E	2	1.3	-	Abaliget
23	13:40:30.5	46.102N	18.105E	5	1.2	-	Kővágótőttős
27	17:18:42.5	46.328N	18.614E	9	0.7	-	Kakasd
29	7:47:31.7	47.836N	18.615E	6	2.1	-	Slovakia
29	10:35:31.2	47.771N	19.051E	17	1.6	-	Dunabogdány
29	19:59:29.5	47.383N	18.174E	0	0.4	-	Nagyveleg
30	12:45:39.9	46.149N	16.381E	10	2.3	-	Croatia
31	9:25:44.5	46.582N	22.587E	1	1.4	-	Romania
31	11:48:45.3	47.366N	18.396E	5	1.2	-	Gánt
FEBRUÁR / FEBRUARY, 2019							
01	11:45:38.3	46.007N	16.403E	13	2.6	-	Croatia
02	18:57:25.7	47.832N	18.654E	14	1.6	-	Slovakia
04	3:07:49.2	48.361N	22.931E	11	1.5	-	Ukraine
04	20:04:09.1	46.395N	21.278E	1	1.6	-	Romania
05	6:14:50.5	46.960N	21.723E	14	1.7	-	Romania
05	21:39:13.2	47.835N	18.330E	10	1.3	-	Slovakia
06	15:15:45.6	48.649N	19.421E	4	1.0	-	Slovakia
06	15:43:37.9	47.924N	20.740E	10	1.5	-	Vatta
06	15:57:39.8	47.924N	20.737E	3	1.7	-	Vatta
06	19:12:21.1	47.889N	20.782E	4	1.5	-	Vatta
07	3:22:50.2	48.181N	18.952E	10	0.8	-	Slovakia
07	14:34:23.5	46.398N	21.240E	14	1.7	-	Romania
08	1:13:34.8	46.967N	21.696E	10	1.8	-	Romania
08	11:57:36.4	48.653N	19.445E	1	1.4	-	Slovakia
09	2:02:51.2	47.294N	17.725E	0	0.8	-	Bakonykoppány
09	23:42:30.9	46.889N	21.501E	10	1.9	-	Mezőgyán

09	23:45:12.4	48.159N	22.879E	8	2.2	-	Ukraine
10	2:24:37.4	47.381N	18.113E	7	0.2	-	Nagyveleg
13	8:53:20.6	45.603N	17.347E	12	1.9	-	Croatia
15	1:33:30.2	48.308N	18.470E	0	0.6	-	Slovakia
16	5:52:14.8	46.321N	17.288E	14	1.6	-	Somogyszob
16	6:16:38.6	46.303N	17.316E	13	1.8	-	Ötvöskónyi
16	13:52:23.3	46.376N	21.321E	16	2.4	-	Romania
16	21:20:11.6	47.349N	18.181E	2	0.2	-	Nagyveleg
17	14:40:44.3	46.313N	17.296E	16	2.7	4	Somogyszob
17	15:03:50.1	46.310N	17.294E	13	2.0	-	Somogyszob
20	10:11:51.6	45.991N	16.074E	0	1.7	-	Croatia
21	10:35:15.5	45.595N	17.334E	10	2.2	-	Croatia
22	18:57:52.9	47.665N	20.320E	8	2.2	4	Tenk
23	12:56:29.0	47.378N	18.205E	10	1.4	-	Mór
23	12:59:15.5	47.304N	18.252E	5	0.1	-	Fehérvárcsurgó
24	13:44:38.8	47.402N	18.445E	6	1.4	-	Csákvár
24	14:44:33.8	48.681N	19.400E	1	1.6	-	Slovakia
25	0:18:04.4	47.314N	18.321E	10	0.3	-	Söréd
27	9:22:39.1	46.374N	21.546E	3	2.6	-	Romania
27	19:39:53.4	46.819N	18.541E	14	1.1	-	Mezőszilas
28	11:08:03.8	45.629N	17.329E	10	2.0	-	Croatia
28	11:09:15.7	45.574N	17.406E	12	1.7	-	Croatia
28	15:48:51.3	46.098N	21.699E	10	2.0	-	Romania

MÁRCIUS / MARCH, 2019

02	7:16:03.9	46.368N	21.514E	10	1.6	-	Romania
04	21:46:13.7	47.534N	18.942E	12	1.7	-	Budakeszi
06	8:16:54.2	47.128N	17.962E	14	0.9	-	Kádárta
07	19:07:54.2	46.306N	17.303E	18	4.0	5	Somogyszob
07	19:21:16.7	46.261N	17.387E	10	1.0	-	Ötvöskónyi
07	19:38:21.7	46.277N	17.392E	10	1.3	-	Szabás
07	21:06:59.2	47.510N	18.969E	10	1.5	-	Budakeszi
08	0:11:55.3	46.312N	17.315E	16	1.7	-	Ötvöskónyi
08	23:22:20.3	47.352N	18.283E	3	0.1	-	Csákberény
09	0:21:40.1	47.383N	18.261E	8	1.1	-	Mór
09	0:22:23.2	47.376N	18.265E	5	0.5	-	Csókakő
09	0:23:01.7	47.400N	18.245E	2	0.7	-	Pusztavám
09	0:23:24.0	47.396N	18.261E	8	0.8	-	Pusztavám
09	0:24:09.7	47.354N	18.281E	4	0.0	-	Csókakő
09	1:12:45.7	47.383N	18.264E	4	0.2	-	Mór
11	17:45:31.0	46.338N	17.306E	4	1.1	-	Segesd
11	19:08:26.6	47.404N	18.392E	0	2.1	-	Gánt
12	9:56:44.1	45.567N	17.449E	10	1.9	-	Croatia
12	15:02:33.9	48.358N	20.952E	10	2.0	-	Selyeb
12	15:55:50.3	46.107N	21.747E	5	1.9	-	Romania
12	23:23:17.8	45.607N	18.007E	18	1.3	-	Croatia
13	8:58:22.7	47.948N	20.012E	10	1.6	-	Bodony
14	9:48:24.5	45.715N	17.288E	13	1.7	-	Croatia
14	20:02:43.2	46.476N	17.332E	1	1.3	-	Nagyszakácsi
15	10:42:09.1	46.111N	21.730E	9	1.6	-	Romania
16	15:08:16.7	45.663N	17.914E	10	2.4	-	Croatia
20	12:15:27.1	45.565N	17.410E	10	1.4	-	Croatia
27	2:56:23.9	46.301N	18.419E	1	0.6	-	Györe
27	11:31:38.5	45.732N	17.279E	12	1.3	-	Croatia
27	18:10:28.8	46.151N	16.372E	7	1.7	-	Croatia
31	10:10:30.3	47.330N	18.279E	4	0.4	-	Söréd

ÁPRILIS / APRIL, 2019

01	0:34:24.3	45.948N	18.544E	0	0.1	-	Bóly
05	13:52:31.9	46.317N	17.303E	10	2.4	-	Somogyszob

08	4:54:28.6	48.951N	18.372E	10	1.8	-	Slovakia
11	4:10:03.2	46.842N	18.893E	8	1.3	-	Dunaegyháza
13	4:04:02.3	48.785N	19.863E	10	1.5	-	Slovakia
15	3:42:28.2	48.992N	18.442E	6	2.1	-	Slovakia
15	22:14:40.5	45.586N	18.514E	7	2.2	-	Croatia
16	9:17:06.3	45.524N	17.322E	10	2.1	-	Croatia
16	9:51:56.0	48.294N	16.052E	10	2.9	-	Austria
19	10:51:58.2	45.672N	17.268E	10	1.1	-	Croatia
20	1:21:06.3	47.391N	18.229E	10	0.1	-	Mór
20	20:18:54.5	47.411N	18.343E	5	0.9	-	Gánt
22	7:56:15.7	48.302N	19.371E	8	1.4	-	Slovakia
23	20:48:47.3	47.563N	18.921E	12	1.2	-	Solymár
24	14:04:11.0	47.367N	18.290E	9	1.2	-	Csókakő
24	19:32:53.2	46.318N	19.852E	24	1.5	-	Üllés
28	5:52:31.4	48.274N	22.622E	12	1.9	-	Ukraine
29	1:09:51.4	45.757N	17.973E	4	2.0	-	Croatia
30	17:52:21.8	47.377N	18.107E	3	0.5	-	Nagyveleg

MÁJUS / MAY, 2019

01	9:15:11.2	45.639N	16.255E	10	2.6	-	Croatia
03	20:20:09.6	48.789N	19.507E	2	1.7	-	Slovakia
06	4:19:34.4	47.395N	18.258E	5	0.6	-	Mór
06	4:21:30.0	47.401N	18.261E	4	0.4	-	Pusztavám
06	5:34:04.9	47.404N	18.263E	4	0.4	-	Pusztavám
06	16:08:06.0	47.343N	18.295E	5	0.7	-	Csákberény
06	16:11:01.2	47.397N	18.264E	5	0.7	-	Pusztavám
07	0:52:36.5	48.650N	19.426E	4	1.1	-	Slovakia
07	8:33:23.0	45.600N	17.337E	13	1.9	-	Croatia
07	11:51:46.4	48.789N	20.075E	2	1.7	-	Slovakia
07	12:43:43.6	47.898N	19.244E	2	0.8	-	Alsópetény
07	17:52:29.0	47.843N	19.354E	0	1.0	-	Nógrádsáp
08	10:35:28.7	45.529N	17.712E	13	1.5	-	Croatia
09	9:28:14.4	48.843N	20.455E	5	1.8	-	Slovakia
10	5:32:54.5	47.730N	18.078E	10	1.5	-	Komárom
11	20:09:44.1	47.370N	18.248E	3	0.5	-	Mór
16	10:39:36.2	47.413N	18.178E	11	2.3	-	Felsődobos
17	7:00:26.5	47.545N	18.943E	11	2.7	4	Budakeszi
17	10:08:00.4	45.500N	18.038E	1	1.8	-	Croatia
17	13:05:14.4	45.847N	17.365E	14	1.6	-	Croatia
18	1:30:23.9	47.651N	18.451E	10	1.1	-	Tardosbánya
19	11:46:19.0	45.687N	17.881E	6	1.8	-	Croatia
19	15:50:53.1	48.644N	19.450E	5	1.2	-	Slovakia
19	18:53:13.6	48.652N	19.424E	4	1.0	-	Slovakia
19	21:34:43.7	46.442N	18.965E	0	1.9	-	Fajsz
21	23:36:49.5	47.546N	18.934E	10	1.6	-	Budakeszi
24	18:31:22.4	47.832N	18.656E	10	1.1	-	Slovakia
25	0:57:10.2	47.833N	18.640E	14	1.2	-	Slovakia
25	17:49:14.9	48.263N	18.971E	10	-0.2	-	Slovakia
27	8:23:14.1	48.723N	18.806E	5	1.6	-	Slovakia
28	2:53:40.5	47.380N	18.139E	5	0.1	-	Nagyveleg
29	20:09:17.0	47.346N	18.200E	4	0.0	-	Bodajk
29	22:52:19.2	47.816N	17.234E	10	2.1	-	Újrónafő
30	0:25:03.9	46.521N	20.069E	14	1.3	-	Ópusztaszer
30	11:02:21.6	45.556N	17.746E	16	1.3	-	Croatia

JÚNIUS / JUNE, 2019

07	8:10:00.8	47.603N	16.315E	10	1.3	-	Austria
09	8:52:07.0	46.090N	17.024E	11	1.6	-	Croatia
10	14:27:48.1	45.536N	16.151E	8	2.2	-	Croatia
11	8:42:32.6	45.530N	17.832E	10	1.7	-	Croatia

13	12:59:19.2	47.808N	16.250E	15	1.3	-	Austria
13	17:47:05.5	47.803N	16.233E	15	1.6	-	Austria
14	9:59:24.8	47.547N	16.301E	8	1.3	-	Austria
14	10:34:46.5	47.877N	16.323E	10	1.5	-	Austria
14	12:34:11.1	47.760N	16.136E	9	2.3	-	Austria
17	7:52:49.8	45.966N	16.070E	6	1.8	-	Croatia
17	21:05:50.8	47.386N	18.184E	9	1.0	-	Mór
20	8:40:19.1	47.267N	18.435E	13	2.0	-	Pátka
22	20:57:29.7	47.674N	20.289E	8	2.3	-	Erdőtelek
23	12:04:17.6	45.961N	17.218E	30	1.8	-	Croatia
23	14:09:44.3	47.680N	20.259E	6	2.5	-	Tarnabod
24	2:37:44.1	47.862N	17.281E	9	1.6	-	Mosonmagyaróvár
24	3:08:53.3	47.823N	17.311E	13	2.2	-	Máriakálnok
30	21:13:08.2	45.525N	17.942E	16	1.0	-	Croatia
30	23:02:51.2	46.009N	21.040E	8	1.5	-	Romania

JÚLIUS / JULY, 2019

04	10:18:37.8	46.206N	16.063E	16	2.2	-	Croatia
05	7:27:22.4	46.215N	16.057E	0	2.3	-	Croatia
05	20:06:01.9	45.915N	16.004E	8	1.7	-	Croatia
06	0:38:21.9	48.368N	22.879E	12	2.1	-	Ukraine
10	11:13:16.6	48.505N	22.772E	10	2.2	-	Ukraine
11	22:05:02.3	46.032N	16.129E	10	1.7	-	Croatia
13	7:27:37.1	46.696N	21.091E	7	2.0	-	Mezőmegyer
13	12:37:40.5	47.500N	18.819E	6	1.2	-	Páty
13	12:41:12.6	47.435N	18.849E	11	2.5	4	Sóskút
13	12:42:30.9	47.448N	18.843E	11	1.2	-	Biatorbágy
13	12:46:40.5	47.457N	18.833E	10	0.8	-	Biatorbágy
13	13:13:23.7	47.354N	18.176E	10	1.1	-	Nagyveleg
14	5:17:04.0	46.036N	16.138E	8	1.5	-	Croatia
15	9:01:35.0	45.620N	17.320E	10	2.0	-	Croatia
15	14:42:22.3	48.572N	20.805E	2	1.7	-	Tornanádaska
18	11:58:11.4	45.993N	16.033E	1	1.7	-	Croatia
19	10:18:53.8	45.974N	22.687E	3	1.9	-	Romania
19	13:06:01.5	46.132N	21.708E	10	1.4	-	Romania
19	23:28:30.3	47.377N	18.140E	4	0.1	-	Nagyveleg
20	15:50:44.6	47.462N	18.836E	10	1.2	-	Biatorbágy
20	19:43:50.6	47.364N	18.233E	3	0.0	-	Mór
22	23:14:05.0	47.460N	19.869E	12	2.2	3.5	Jászberény
22	23:15:06.1	47.502N	19.804E	10	1.5	-	Jászfelsőszentgyörgy
28	7:23:02.7	46.222N	16.648E	7	1.9	-	Croatia
28	22:59:04.1	47.921N	16.991E	10	1.6	-	Austria
30	6:21:43.5	47.402N	18.272E	10	0.8	-	Pusztavám

AUGUSZTUS / AUGUST, 2019

02	17:50:26.4	47.822N	18.340E	10	1.6	-	Slovakia
02	22:34:31.7	45.903N	17.196E	10	1.9	-	Croatia
05	1:27:25.2	47.400N	18.117E	1	0.5	-	Aka
06	17:33:18.8	47.199N	18.373E	2	1.1	-	Székesfehérvár
07	9:14:11.5	48.597N	21.427E	1	1.8	-	Slovakia
11	23:29:46.8	47.644N	20.330E	14	4.1	4.5	Tenk
12	2:44:25.1	47.696N	20.338E	0	1.1	-	Erdőtelek
12	3:03:38.6	47.671N	20.346E	10	1.4	-	Tenk
13	3:14:32.8	47.706N	20.430E	5	1.0	-	Besenyőtelek
13	3:53:01.7	47.656N	20.326E	5	1.2	-	Tenk
13	12:49:43.2	47.663N	20.342E	11	2.3	-	Tenk
14	7:17:28.8	47.626N	20.347E	10	1.6	-	Tenk
14	9:47:36.3	47.643N	20.316E	11	1.3	-	Tenk
15	8:57:19.3	46.174N	18.293E	7	1.0	-	Zobákpuszta
15	9:02:26.8	47.229N	18.270E	1	0.7	-	Iszkaszentgyörgy

15	9:05:16.2	48.528N	20.771E	7	2.1	-	Tornaszentandrás
15	10:39:53.5	47.518N	18.561E	10	1.3	-	Nagyegyháza
16	6:58:09.5	46.025N	22.818E	3	1.5	-	Romania
16	22:11:33.5	47.636N	20.353E	10	1.0	-	Tenk
17	18:00:45.1	47.636N	20.324E	9	1.4	-	Tenk
17	21:54:30.4	47.639N	20.291E	2	1.0	-	Heves
18	3:06:54.4	47.674N	20.336E	5	1.0	-	Tenk
18	20:27:11.1	47.313N	18.310E	9	-0.1	-	Söréd
19	0:49:32.3	47.585N	20.288E	4	1.2	-	Heves
19	20:32:31.7	47.610N	20.289E	5	1.0	-	Heves
20	9:44:23.7	45.636N	18.111E	8	1.7	-	Croatia
21	0:45:44.9	47.635N	20.284E	2	1.2	-	Heves
21	2:19:07.6	47.629N	20.296E	0	1.1	-	Heves
21	4:52:39.5	48.514N	17.638E	1	1.5	-	Slovakia
21	13:39:41.6	47.498N	19.827E	10	2.2	-	Jászfelsőszentgyörgy
21	20:16:21.8	47.632N	20.309E	2	1.0	-	Heves
23	10:26:34.7	45.920N	17.655E	10	1.5	-	Potony
24	4:36:01.0	46.750N	21.255E	14	1.8	-	Doboz
26	21:09:16.5	45.958N	17.911E	5	0.8	-	Sumony
26	21:24:18.1	45.931N	17.915E	11	1.2	-	Okorág
26	21:55:52.0	47.639N	20.310E	2	0.8	-	Tenk
30	15:14:55.6	48.537N	22.851E	12	2.3	-	Ukraine
30	21:06:54.7	46.116N	16.601E	10	1.8	-	Croatia
30	22:14:55.3	46.128N	16.578E	10	1.5	-	Croatia
30	22:17:25.0	46.090N	16.633E	12	1.5	-	Croatia
30	22:19:21.3	46.127N	16.606E	10	1.6	-	Croatia
30	22:41:22.0	46.097N	16.630E	10	1.5	-	Croatia
31	0:53:37.5	46.120N	16.651E	10	1.9	-	Croatia
31	7:58:34.1	46.113N	16.656E	13	3.4	-	Croatia
31	8:18:29.5	46.113N	16.623E	10	2.1	-	Croatia
31	8:47:46.9	47.684N	20.380E	3	1.3	-	Tenk
31	13:50:05.8	47.675N	20.383E	4	1.0	-	Tenk

SZEPTEMBER / SEPTEMBER, 2019

01	11:37:40.8	47.686N	18.179E	16	1.3	-	Mocsa
02	10:45:11.2	45.619N	20.528E	13	2.8	-	Croatia
05	21:51:13.4	48.570N	22.432E	1	1.9	-	Ukraine
07	10:57:29.5	46.210N	18.916E	8	1.7	-	Baja
13	17:40:40.9	46.146N	16.648E	11	3.2	-	Croatia
13	22:29:35.0	46.131N	16.603E	14	1.6	-	Croatia
14	20:26:26.2	45.936N	21.777E	8	2.5	-	Romania
15	9:09:59.7	46.462N	16.404E	12	2.2	-	Croatia
16	15:33:20.1	45.795N	17.981E	18	1.2	-	Vejti
16	23:24:29.4	45.734N	17.263E	16	1.2	-	Croatia
16	23:39:48.3	45.888N	17.174E	16	1.5	-	Croatia
17	9:07:59.5	45.691N	17.443E	17	1.8	-	Croatia
21	10:57:24.0	47.481N	18.306E	10	0.3	-	Oroszlány
24	18:40:09.3	47.411N	18.243E	0	0.2	-	Pusztavám
24	20:48:08.6	47.396N	18.253E	9	0.9	-	Mór
24	23:02:26.1	47.334N	18.279E	4	0.8	-	Söréd
25	0:32:14.1	48.782N	19.900E	0	1.5	-	Slovakia
25	7:45:57.0	47.498N	16.298E	1	1.3	-	Austria
25	11:47:19.3	47.357N	18.264E	2	0.6	-	Csókakő
26	0:57:05.1	45.815N	21.083E	12	2.7	-	Romania
26	23:35:37.9	47.391N	18.241E	0	0.6	-	Mór
27	8:44:48.4	47.567N	16.312E	7	1.5	-	Austria
29	6:26:06.9	47.296N	18.210E	7	0.6	-	Bodajk
29	7:30:26.8	47.411N	18.099E	1	0.4	-	Aka
29	19:52:54.5	47.231N	17.818E	5	0.6	-	Pénzesgyőr
29	20:07:00.5	47.278N	17.923E	7	0.7	-	Nagyesztergár

29	21:24:23.1	47.289N	17.968E	1	0.5	-	Bakonynána

OKTÓBER / OCTOBER, 2019

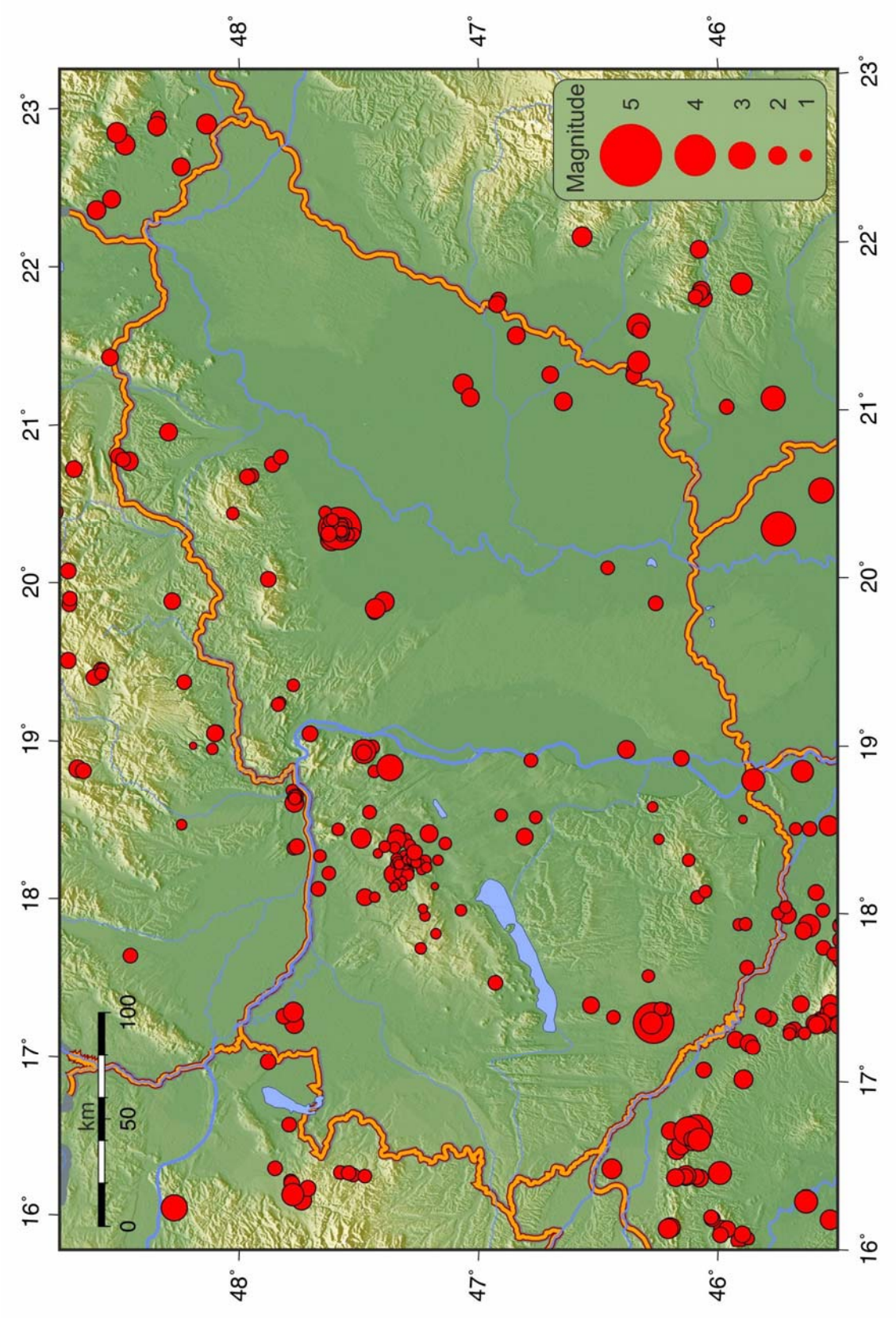
01	16:10:08.2	47.347N	18.362E	13	0.8	-	Zámoly
02	16:07:22.4	47.276N	18.224E	6	0.6	-	Kincsesbánya
02	21:06:12.9	47.735N	16.210E	10	1.7	-	Austria
03	12:50:48.3	45.923N	16.977E	6	2.1	-	Croatia
05	9:55:43.3	47.337N	18.277E	4	1.5	-	Csákberény
07	9:24:44.4	48.551N	20.782E	1	1.5	-	Tornanádaska
07	21:57:05.7	47.725N	18.284E	16	1.2	-	Almásfüzitő
09	1:18:50.7	47.359N	18.271E	10	0.4	-	Csókakő
09	4:13:31.4	47.336N	18.272E	0	0.9	-	Csákberény
09	9:07:27.3	48.758N	20.726E	10	1.8	-	Slovakia
10	1:35:07.4	46.193N	16.364E	10	1.9	-	Croatia
13	13:21:20.4	47.320N	18.253E	2	0.6	-	Fehérvárcsurgó
13	23:15:48.5	47.425N	18.855E	8	0.2	-	Sóskút
14	20:25:01.7	45.876N	16.018E	7	1.1	-	Croatia
17	22:17:03.6	47.452N	18.350E	7	0.8	-	Oroszlány
23	4:34:42.1	48.167N	19.052E	11	1.6	-	Slovakia
26	2:08:59.1	47.797N	16.165E	4	2.4	-	Austria
27	1:57:54.6	45.764N	18.021E	10	1.2	-	Croatia
30	19:49:53.4	47.824N	16.600E	2	1.4	-	Austria

NOVEMBER / NOVEMBER, 2019

05	5:12:41.4	48.095N	20.431E	3	1.2	-	Szilvásvárad
09	0:57:01.3	47.240N	18.109E	13	-0.2	-	Várpalota
10	8:31:28.6	45.701N	18.841E	4	2.5	-	Croatia
12	5:46:22.3	47.551N	18.397E	8	2.3	-	Tatabánya
14	2:56:50.1	45.667N	18.493E	10	1.4	-	Croatia
18	11:16:37.4	48.859N	20.627E	7	2.0	-	Slovakia
19	7:33:52.5	46.866N	18.423E	5	1.8	-	Dég
26	4:10:49.1	46.101N	16.601E	10	2.6	-	Croatia
26	7:25:31.7	47.533N	18.032E	11	1.8	-	Kisbér
28	23:25:42.0	48.022N	20.663E	11	1.3	-	Kisgyőr
29	10:10:59.0	47.492N	18.032E	0	0.6	-	Kisbér
30	16:04:12.7	48.013N	20.666E	10	1.5	-	Kisgyőr

DECEMBER / DECEMBER, 2019

06	19:03:49.2	47.906N	19.231E	8	1.3	-	Romhány
08	7:51:35.9	46.572N	17.403E	15	1.8	-	Marcali
10	15:21:59.3	48.171N	19.050E	12	1.8	-	Slovakia
12	10:34:37.3	48.353N	19.878E	10	1.8	-	Slovakia
12	13:14:55.8	47.691N	20.292E	1	1.7	-	Erdőtelek
13	16:57:44.2	47.436N	18.842E	9	2.9	4	Sóskút
17	0:28:07.5	45.800N	20.299E	11	3.6	-	Serbia
21	14:51:47.5	48.637N	22.366E	2	2.1	-	Ukraine
27	0:03:00.6	45.901N	16.042E	9	1.8	-	Croatia
27	1:01:13.9	45.726N	18.491E	0	1.0	-	Croatia
29	4:33:55.8	48.030N	20.659E	10	1.6	-	Kisgyőr
29	21:02:45.7	47.327N	18.317E	12	1.6	-	Söréd
31	3:13:25.3	45.906N	18.785E	6	2.6	-	Homorúd



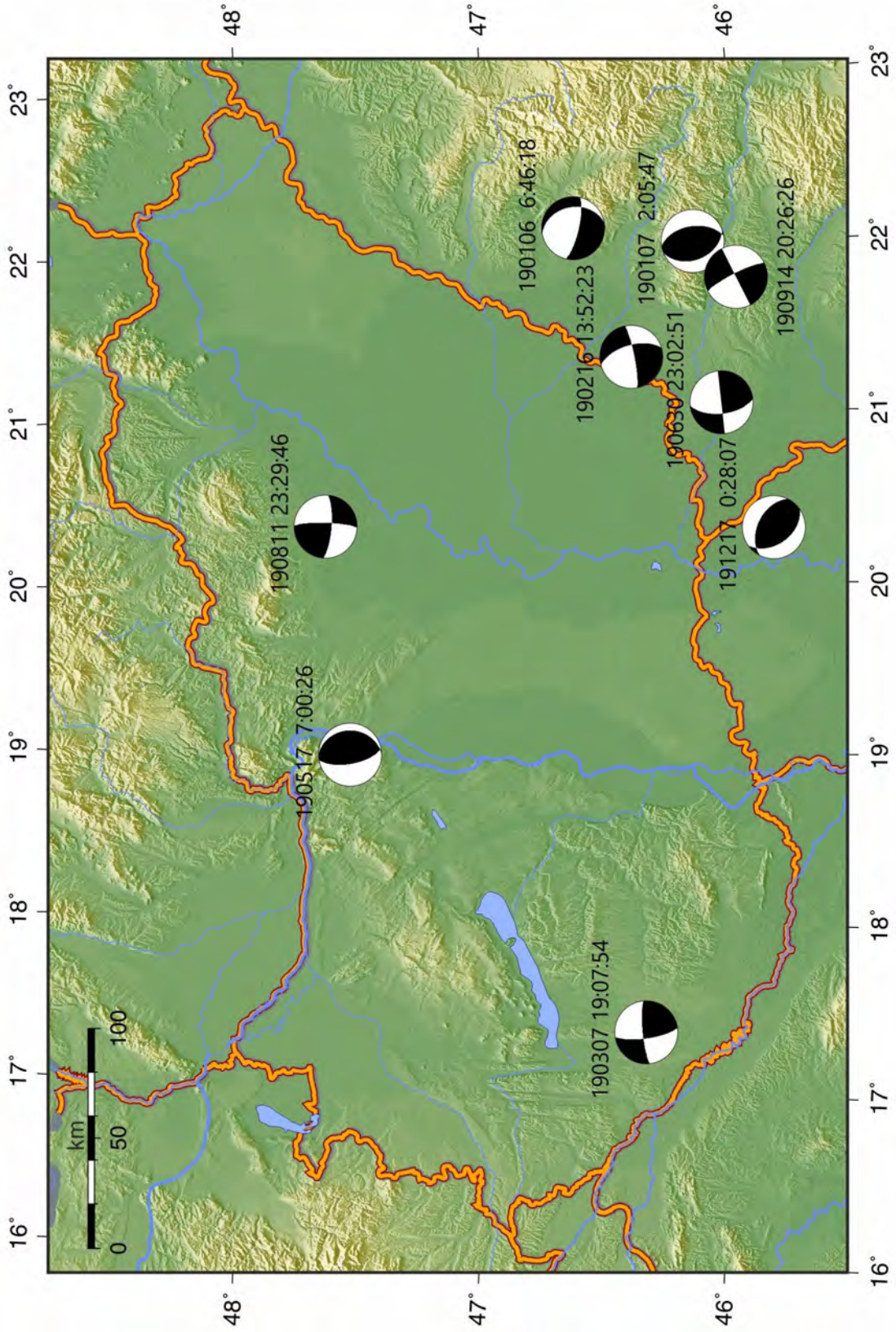
3.1. ábra A 2019-ben regisztrált földrengések epicentrumai

Figure 3.1. Epicenters of 2019 earthquakes

A 2019-ben regisztrált földrengések fészekmechanizmusai

Fault plane sulutions of 2019 earthquakes

No	Date	Time	Epicentre		1st nodal plane			P axis		T axis		
			Lat	Lon	Strike	Dip	Rake	Azim	Plunge	Azim	Plunge	
1	2019.01.06.	06:46:18	46.60	22.09	105	75	-120	341	51	218	24	
2	2019.01.07.	02:05:47	46.11	22.00	160	40	80	77	5	307	82	
	2019.02.16.	13:52:23	46.37	21.32	345	60	-10	307	27	209	14	
4	2019.03.07.	19:07:54	46.30	17.30	170	75	170	36	4	127	18	
5	2019.05.17.	07:00:26	47.54	18.94	0	25	100	262	20	70	69	
6	2019.06.30.	23:02:51	46.01	21.04	85	90	-30	36	21	134	21	
7	2019.08.11.	23:29:46	47.64	20.33	95	75	10	49	4	318	18	
8	2019.09.14.	20:26:26	45.93	21.78	65	90	-170	290	7	200	7	
9	2019.12.17.	00:28:07	45.80	20.30	145	45	110	41	2	138	76	



3.2. ábra A 2019-ben regisztrált földrengések fészekmechanizmusai

Figure 3.2. Fault plane solutions of 2019 earthquakes

ROBBANTÁSOK LISTÁJA / LIST OF EXPLOSIONS

Nap	Kipattanási idő UTC óó pp mp	Földrajzi koordináták Lat	Long	ML	Helyszín
Day	**Origin time UTC hr mn sec**	**Geographic coordinates Lat**	**Long**	**ML**	**Locality or Region**
JANUÁR / JANUARY, 2019					
04	9:03:04.5	48.582N	20.747E	1.5	Slovakia
07	9:29:16.1	48.516N	20.858E	1.8	Becskeháza
08	9:06:30.8	48.589N	20.760E	1.9	Slovakia
08	9:14:38.9	47.110N	17.747E	1.5	Szentgál
09	10:33:28.8	47.232N	18.240E	0.8	Iszkaszentgyörgy
10	9:02:56.3	45.846N	18.453E	0.9	Villány
10	9:12:51.8	48.615N	20.765E	1.6	Slovakia
11	9:08:12.8	48.547N	20.773E	2.1	Komjáti
11	10:17:42.1	47.175N	18.314E	1.0	Székesfehérvár
14	9:46:49.7	47.541N	18.459E	1.6	Tatabánya
14	10:29:24.6	47.214N	18.317E	1.1	Moha
14	10:42:04.3	48.604N	20.760E	1.6	Slovakia
15	8:15:18.6	47.335N	18.408E	1.7	Zámoly
15	10:14:09.2	47.209N	18.258E	0.6	Csór
16	10:26:21.6	48.597N	20.764E	1.9	Slovakia
17	9:04:06.3	47.359N	18.389E	1.5	Gánt
17	9:18:45.2	47.320N	18.392E	1.5	Zámoly
17	10:18:22.2	47.209N	18.287E	1.2	Iszkaszentgyörgy
21	10:57:54.9	48.605N	20.761E	1.9	Slovakia
21	11:06:36.4	47.102N	17.927E	1.4	Kádárta
22	8:55:52.8	47.320N	18.427E	2.0	Zámoly
22	10:38:39.0	47.230N	18.274E	1.3	Iszkaszentgyörgy
24	8:11:13.1	47.360N	18.390E	1.5	Gánt
24	9:31:26.7	46.165N	18.304E	0.7	Zobákpuszta
24	9:58:48.3	48.615N	20.775E	1.8	Slovakia
24	10:12:31.6	47.222N	18.283E	0.9	Iszkaszentgyörgy
24	10:46:15.6	47.291N	18.318E	1.2	Magyaralmás
24	11:02:54.7	48.204N	21.233E	2.1	Rátka
28	9:40:36.8	47.110N	18.014E	1.1	Királyszentistván
28	9:59:18.8	47.372N	18.424E	2.0	Gánt
29	9:11:15.5	48.616N	20.789E	1.4	Slovakia
30	10:27:17.6	47.208N	18.308E	1.0	Székesfehérvár
30	13:17:33.6	46.126N	18.028E	1.1	Hetvehely
31	8:29:48.3	47.311N	17.644E	1.3	Homokbödöge
31	8:39:52.2	47.343N	18.414E	1.4	Zámoly
31	10:04:30.9	48.613N	20.781E	1.6	Slovakia
31	10:28:20.3	47.207N	18.285E	1.0	Iszkaszentgyörgy
FEBRUÁR / FEBRUARY, 2019					
01	9:44:49.7	46.167N	18.297E	0.6	Zobákpuszta
04	8:30:24.8	47.854N	19.861E	1.6	Gyöngyösoroszi
04	9:24:57.8	48.627N	20.748E	1.5	Slovakia
04	11:14:52.5	47.216N	18.308E	1.2	Moha
05	9:07:27.1	47.130N	18.253E	1.0	Nádasdladány
05	10:58:50.0	47.367N	18.396E	1.7	Gánt
05	11:12:56.3	47.325N	18.413E	2.0	Zámoly

06	9:48:30.2	48.610N	20.756E	1.6	Slovakia
06	9:51:21.8	47.715N	18.647E	1.8	Tokod
07	8:10:45.7	47.068N	18.005E	0.6	Balatonfűzfő
07	9:52:48.1	48.500N	17.389E	2.1	Slovakia
07	9:55:50.0	47.844N	19.129E	1.5	Szendehely
07	9:57:14.5	48.601N	20.782E	1.6	Slovakia
07	11:41:36.0	46.125N	18.037E	1.2	Bükkösd
08	8:30:51.5	47.122N	18.119E	1.0	Berhida
08	9:01:13.0	48.618N	20.757E	1.6	Slovakia
08	9:10:09.9	46.988N	22.267E	1.8	Romania
08	9:16:09.9	47.361N	18.423E	1.9	Gánt
08	11:58:30.5	47.532N	18.517E	1.3	Szárliget
11	9:18:27.7	48.599N	20.738E	1.4	Slovakia
11	11:00:05.9	47.854N	19.166E	1.5	Ősagárd
11	14:23:10.7	48.598N	21.510E	1.6	Slovakia
12	12:23:35.6	48.603N	20.797E	1.6	Slovakia
13	8:04:12.3	48.022N	16.586E	1.8	Austria
13	9:02:30.8	47.876N	19.166E	1.7	Nőtincs
13	9:25:33.2	47.304N	17.634E	1.2	Homokbödöge
13	9:31:16.0	47.313N	17.630E	1.3	Homokbödöge
13	10:37:10.5	47.330N	18.449E	1.6	Zámoly
13	10:56:14.0	47.336N	18.443E	1.3	Zámoly
13	10:59:34.0	48.146N	16.873E	1.9	Austria
13	13:15:20.4	46.125N	18.042E	1.1	Hetvehely
14	11:01:37.7	47.938N	19.456E	1.3	Szanda
14	11:34:23.6	47.928N	19.404E	1.7	Becske
14	11:52:39.8	48.387N	18.432E	1.5	Slovakia
15	4:42:59.9	48.451N	17.231E	2.1	Slovakia
15	8:25:35.5	47.008N	22.238E	2.2	Romania
15	10:11:30.0	47.340N	18.400E	1.6	Zámoly
15	11:22:27.1	47.220N	18.279E	1.1	Iszkaszentgyörgy
18	9:07:21.6	47.570N	18.414E	1.1	Tatabánya
19	9:34:42.4	47.306N	18.328E	1.4	Magyaralmás
19	9:47:29.4	47.337N	18.437E	1.6	Zámoly
19	9:48:17.1	46.182N	18.273E	0.9	Mánfa
19	10:06:25.4	48.628N	20.741E	1.8	Slovakia
19	10:22:06.1	47.217N	18.280E	1.1	Iszkaszentgyörgy
20	8:06:01.2	47.208N	18.175E	0.9	Bakonykúti
20	8:14:33.5	47.224N	18.163E	1.1	Bakonykúti
20	10:24:34.0	47.210N	18.262E	0.6	Csór
21	7:28:50.4	47.111N	18.013E	0.8	Királyszentistván
21	9:12:44.1	47.329N	18.443E	1.4	Zámoly
21	9:17:19.7	48.684N	19.946E	1.5	Slovakia
21	9:32:14.2	48.579N	20.785E	1.6	Tornanádaska
21	9:54:56.5	47.852N	19.149E	1.5	Ősagárd
21	10:18:02.3	46.979N	22.237E	2.2	Romania
22	9:06:51.9	46.031N	22.823E	1.6	Romania
22	10:51:06.6	47.194N	18.296E	1.4	Székesfehérvár
25	9:46:15.7	48.267N	21.541E	2.5	Sárazsadány
25	11:03:01.9	48.182N	16.899E	2.1	Austria
25	11:10:04.9	47.222N	18.295E	1.4	Moha
25	12:39:47.9	48.368N	19.864E	1.7	Slovakia
26	9:14:30.6	47.353N	18.406E	1.8	Gánt
26	9:15:10.5	48.558N	20.778E	1.8	Tornanádaska
26	9:25:07.9	47.331N	18.466E	1.7	Lovasberény
26	10:49:49.3	47.211N	18.276E	0.6	Iszkaszentgyörgy
27	10:26:52.2	47.207N	18.291E	1.1	Iszkaszentgyörgy
28	9:42:37.2	48.308N	21.576E	1.8	Sárospatak
28	10:33:18.7	48.576N	20.776E	1.6	Tornanádaska

MÁRCIUS / MARCH, 2019

01	9:45:39.2	47.178N	18.302E	1.1	Sárkeszi
01	9:54:43.5	47.871N	19.190E	1.7	Ősagárd
01	10:17:12.6	47.686N	18.558E	2.0	Nagysáp
01	10:34:13.4	47.327N	18.399E	1.3	Zámoly
04	7:29:40.0	47.235N	18.159E	0.9	Bakonykúti
04	7:32:31.7	47.196N	18.198E	0.8	Csór
04	8:53:16.5	48.658N	20.759E	1.6	Slovakia
04	10:43:58.5	47.294N	18.420E	1.8	Zámoly
04	11:00:31.7	48.176N	16.867E	2.1	Austria
04	11:54:14.6	46.109N	17.973E	1.4	Dinnyeberki
04	12:45:45.4	47.182N	18.309E	1.2	Székesfehérvár
05	9:51:26.2	48.516N	17.473E	1.7	Slovakia
05	9:54:58.3	47.515N	18.557E	1.4	Nagyegyháza
05	10:02:29.0	48.588N	20.771E	1.9	Slovakia
06	8:15:02.2	48.442N	19.120E	0.8	Slovakia
06	10:56:15.4	48.607N	20.757E	1.6	Slovakia
06	11:25:56.5	48.320N	21.295E	2.0	Sima
06	11:55:15.3	47.220N	18.258E	0.6	Iszkaszentgyörgy
07	8:30:47.4	46.917N	22.816E	1.6	Romania
07	9:18:27.6	47.349N	18.427E	1.8	Gánt
07	10:04:58.8	47.855N	19.156E	1.4	Ősagárd
07	10:26:17.1	46.106N	18.024E	1.2	Bükkösd
07	11:21:01.8	46.136N	18.003E	1.2	Hetvehely
08	8:11:13.0	48.080N	20.694E	1.4	Miskolctapolca
08	8:32:01.3	48.328N	18.991E	1.4	Slovakia
08	8:42:28.2	47.450N	18.733E	1.4	Etyek
08	9:34:00.3	47.519N	18.615E	1.5	Bicske
08	10:16:45.8	47.000N	22.257E	1.9	Romania
08	10:35:23.7	46.057N	22.747E	1.8	Romania
08	14:04:50.7	47.103N	18.122E	1.0	Berhida
09	9:31:21.7	46.181N	18.289E	0.7	Zobákpuszta
11	10:34:52.4	47.857N	19.829E	1.5	Gyöngyöspata
11	10:49:13.8	48.302N	18.617E	2.0	Slovakia
11	11:01:01.4	48.180N	16.915E	2.0	Austria
11	11:16:13.5	47.027N	17.798E	1.5	Tótvázsony
11	11:40:16.2	47.327N	18.412E	2.1	Zámoly
12	9:36:50.0	48.596N	20.770E	1.6	Slovakia
12	10:13:24.5	46.247N	18.236E	0.9	Mecsekpölöske
12	10:17:49.0	47.094N	18.357E	0.8	Kőszárhegy
12	10:44:51.7	48.230N	21.264E	2.2	Tállya
12	13:00:05.8	48.511N	19.798E	2.0	Slovakia
13	9:30:49.5	46.176N	18.298E	1.0	Zobákpuszta
13	9:41:20.1	47.897N	20.067E	1.9	Parád
13	11:56:04.6	47.334N	18.383E	1.7	Zámoly
13	12:04:35.4	47.233N	18.271E	1.0	Iszkaszentgyörgy
14	9:43:31.4	46.847N	17.321E	1.9	Lesencefalu
15	9:09:05.2	48.550N	20.758E	1.5	Komjáti
15	9:26:53.7	47.003N	22.311E	1.9	Romania
15	10:51:08.1	48.472N	22.602E	1.9	Ukraine
15	10:52:43.6	48.478N	22.631E	1.5	Ukraine
15	10:59:58.2	48.136N	16.924E	1.9	Austria
15	13:50:05.9	46.096N	21.765E	1.3	Romania
18	8:39:49.6	46.055N	22.784E	1.8	Romania
18	11:45:15.7	46.141N	18.049E	1.2	Hetvehely
19	9:24:06.3	47.332N	18.394E	2.0	Zámoly
20	8:54:15.7	47.286N	17.641E	1.2	Homokbödöge
20	9:05:01.5	46.822N	22.874E	1.7	Romania
20	10:25:28.1	47.212N	18.284E	1.3	Iszkaszentgyörgy
21	10:17:36.1	47.292N	17.663E	1.8	Bakonykoppány

21	11:35:32.0	48.227N	21.230E	2.2	Tállya
21	11:37:39.3	46.135N	18.027E	1.1	Hetvehely
25	9:40:43.8	47.889N	19.186E	1.5	Felsőpetény
25	9:47:30.9	47.106N	18.021E	0.9	Királyszentistván
25	10:54:51.1	47.452N	18.710E	1.5	Etyek
26	10:40:53.8	47.203N	18.276E	0.7	Csór
26	11:23:08.4	47.326N	18.459E	1.4	Pátka
27	9:12:42.2	47.512N	18.368E	1.5	Vértessomló
27	9:27:04.3	47.798N	19.909E	1.3	Gyöngyös
27	10:06:16.9	48.615N	20.729E	1.5	Slovakia
28	9:36:58.5	47.336N	18.474E	1.2	Lovasberény
29	10:36:12.4	47.847N	19.116E	1.6	Szendehely
30	10:06:36.0	46.153N	18.304E	1.0	Vasas

ÁPRILIS / APRIL, 2019

02	7:55:38.9	48.578N	20.777E	1.4	Tornanádaska
02	9:11:19.9	47.229N	18.244E	0.6	Iszkaszentgyörgy
02	10:31:24.5	48.247N	21.294E	2.5	Erdőbénye
03	8:40:25.5	47.329N	18.456E	1.8	Pátka
03	9:30:30.6	46.826N	17.249E	1.8	Rezi
03	10:23:24.1	47.187N	18.287E	0.6	Sárkeszi
04	8:48:03.2	46.234N	18.243E	0.7	Komló
04	9:22:44.7	48.572N	20.749E	1.3	Tornanádaska
05	6:08:12.0	47.156N	18.190E	1.0	Ősi
05	8:12:45.5	47.884N	19.432E	1.8	Bercel
05	9:39:50.6	48.489N	18.714E	1.5	Slovakia
08	8:05:43.6	48.603N	20.751E	1.4	Slovakia
08	9:12:22.3	47.574N	18.504E	1.3	Tarján
09	6:03:45.7	47.307N	18.305E	1.1	Söréd
09	8:37:33.2	48.422N	18.997E	1.1	Slovakia
09	9:13:17.0	48.361N	18.514E	1.3	Slovakia
09	9:25:10.8	47.890N	19.181E	1.4	Felsőpetény
09	9:42:15.1	47.359N	18.409E	1.8	Gánt
10	8:56:10.5	46.199N	18.275E	1.2	Komló
10	9:27:54.1	47.334N	18.422E	1.5	Zámoly
10	11:03:03.5	48.651N	20.730E	1.4	Slovakia
10	11:09:55.6	48.417N	20.765E	1.4	Galvács
11	7:08:49.4	48.591N	20.781E	1.5	Slovakia
11	8:50:50.1	47.212N	18.286E	1.5	Iszkaszentgyörgy
11	9:35:19.7	47.202N	18.307E	0.8	Székesfehérvár
11	11:52:35.0	46.126N	18.093E	0.9	Abaliget
12	6:20:07.7	47.230N	18.214E	0.7	Bakonykúti
12	8:07:35.7	47.332N	18.410E	2.0	Zámoly
12	9:43:14.8	46.029N	18.120E	1.1	Pellérd
12	10:00:41.8	48.155N	16.914E	1.4	Austria
12	10:18:25.2	48.266N	21.208E	1.9	Abaújszántó
12	10:31:58.7	46.117N	18.063E	1.3	Bükkösd
15	8:37:25.3	48.567N	20.747E	1.5	Komjáti
15	8:42:17.5	47.362N	18.395E	1.4	Gánt
15	10:10:31.1	47.187N	18.312E	1.2	Székesfehérvár
16	8:17:36.3	45.879N	18.381E	1.1	Kisharsány
16	9:08:03.0	48.585N	20.718E	1.5	Slovakia
16	9:48:45.8	47.318N	18.402E	1.6	Zámoly
17	7:24:07.2	47.888N	19.415E	1.0	Bercel
17	9:30:56.3	48.588N	20.741E	1.5	Slovakia
17	11:16:13.7	47.914N	20.168E	1.5	Sirok
18	8:58:23.1	47.845N	19.109E	1.6	Szendehely
18	12:49:04.8	47.208N	19.085E	1.4	Áporka
23	8:02:43.4	47.108N	18.041E	1.0	Királyszentistván
23	8:26:09.1	48.270N	21.238E	1.8	Tállya

23	9:10:33.8	47.134N	18.037E	1.2	Hajmáskér
24	9:19:32.6	47.212N	18.273E	0.7	Iszkaszentgyörgy
24	9:32:44.5	48.431N	19.523E	1.5	Slovakia
25	7:50:13.4	48.597N	20.751E	1.5	Slovakia
25	8:03:42.2	47.860N	19.156E	1.6	Ősagárd
25	8:39:10.1	47.311N	18.327E	0.6	Magyaralmás
25	9:00:09.0	47.320N	18.314E	0.8	Söréd
25	9:33:41.3	46.127N	18.044E	0.9	Hetvehely
25	9:52:38.1	47.440N	18.412E	1.9	Várgesztes
25	10:01:30.2	48.360N	19.853E	1.7	Slovakia
26	6:24:44.7	47.208N	18.202E	0.6	Csór
26	6:29:00.4	47.201N	18.164E	0.6	Pétfürdő
26	7:35:12.1	47.526N	18.493E	1.4	Szárliget
26	10:14:49.7	48.556N	20.774E	2.0	Tornanádaska
29	7:50:05.9	47.360N	18.407E	1.5	Gánt
29	8:01:36.8	47.836N	19.901E	1.9	Gyöngyösoroszi
29	8:31:48.3	48.421N	19.121E	1.5	Slovakia
29	9:51:50.3	48.234N	21.235E	2.4	Tállya
29	10:00:14.9	48.172N	16.889E	1.6	Austria
30	7:17:03.9	47.978N	20.018E	1.5	Mátraballa
30	9:10:05.5	48.091N	20.606E	1.6	Lillafüred
30	9:14:46.7	46.089N	17.871E	1.4	Zsibót
30	10:08:55.0	47.944N	20.024E	1.8	Bodony
30	10:14:41.9	48.635N	21.416E	1.5	Slovakia

MÁJUS / MAY, 2019

01	9:03:53.0	45.528N	18.199E	1.7	Croatia
02	7:18:47.2	48.577N	20.756E	1.6	Tornanádaska
02	8:29:23.5	47.897N	19.403E	1.6	Bercel
02	8:47:15.7	47.861N	19.116E	1.6	Szendehely
02	10:11:40.5	48.443N	20.711E	1.5	Szalonna
03	8:04:05.6	48.588N	20.735E	1.4	Slovakia
03	9:53:39.0	47.463N	18.724E	1.5	Etyek
03	10:24:09.9	48.363N	19.874E	1.6	Slovakia
04	8:52:13.4	46.158N	18.291E	0.9	Vasas
06	10:01:09.3	47.350N	18.476E	1.7	Lovasberény
07	7:12:36.7	47.304N	17.675E	1.3	Bakonykoppány
07	8:12:24.3	48.584N	20.791E	1.4	Slovakia
07	8:27:10.0	47.324N	18.441E	1.9	Zámoly
07	9:56:20.4	47.199N	18.287E	1.0	Csór
07	11:18:30.2	47.349N	18.427E	1.5	Gánt
08	9:44:23.2	47.051N	17.887E	1.3	Veszprémfajsz
08	10:34:07.7	47.235N	18.263E	0.8	Iszkaszentgyörgy
09	9:00:18.2	46.113N	18.071E	1.2	Bakonya
09	9:45:48.1	47.252N	17.679E	1.9	Németbánya
10	9:35:48.7	48.242N	21.273E	2.4	Tállya
10	9:57:18.7	47.308N	18.329E	1.3	Magyaralmás
10	10:03:48.6	48.610N	20.786E	1.5	Slovakia
10	11:37:07.3	47.845N	19.121E	1.3	Szendehely
10	17:01:35.2	48.567N	20.792E	1.6	Tornanádaska
11	9:02:26.0	46.264N	18.208E	0.4	Kisvaszar
13	7:57:32.3	48.600N	20.713E	1.5	Slovakia
13	9:28:01.5	47.218N	18.267E	0.8	Iszkaszentgyörgy
13	9:38:13.9	46.174N	18.287E	1.0	Zobákpuszta
14	6:53:45.7	47.324N	18.424E	1.4	Zámoly
14	9:21:57.5	48.620N	20.725E	1.5	Slovakia
14	11:52:17.9	48.283N	19.775E	1.6	Slovakia
15	8:02:01.9	48.597N	20.729E	1.4	Slovakia
15	8:09:30.0	48.331N	19.025E	1.8	Slovakia
15	8:48:01.4	46.870N	17.184E	2.3	Vindornyafok

15	9:00:58.9	47.915N	20.083E	1.7	Parád
15	9:32:44.2	46.105N	18.084E	1.0	Kővágótőttős
15	12:45:34.3	47.161N	19.241E	1.9	Bugyi (10 km)
16	7:08:53.7	47.298N	18.329E	1.0	Magyaralmás
16	9:27:43.4	48.598N	20.745E	1.4	Slovakia
16	9:46:05.5	47.231N	18.269E	1.1	Iszkaszentgyörgy
16	10:08:00.1	48.246N	21.247E	2.3	Tállya
16	10:24:12.4	47.213N	18.286E	1.0	Iszkaszentgyörgy
16	10:53:18.4	47.325N	18.461E	1.7	Pátka
17	8:24:01.6	46.131N	18.058E	1.2	Hetvehely
17	9:38:40.3	47.180N	18.295E	0.6	Sárkeszi
17	10:38:11.1	47.324N	18.461E	1.6	Pátka
17	11:49:04.7	47.701N	18.547E	1.5	Bajót
18	8:25:09.9	48.594N	20.764E	1.7	Slovakia
20	8:42:03.8	48.618N	20.763E	1.5	Slovakia
20	9:37:59.1	47.197N	18.294E	0.8	Székesfehérvár
20	10:09:13.8	46.998N	22.263E	2.0	Romania
21	7:20:21.3	47.331N	18.423E	1.3	Zámoly
21	8:15:13.4	48.617N	20.730E	1.7	Slovakia
21	8:34:00.8	48.543N	19.366E	1.9	Slovakia
21	12:23:11.5	48.579N	18.809E	1.5	Slovakia
22	7:33:40.2	47.336N	18.479E	1.5	Lovasberény
22	9:06:42.0	47.215N	18.278E	0.9	Iszkaszentgyörgy
22	10:08:03.4	48.416N	19.129E	1.7	Slovakia
22	10:25:23.3	47.512N	18.589E	1.5	Óbarok
23	9:13:26.3	46.169N	18.288E	1.0	Zobákpuszta
24	8:08:28.1	46.110N	18.012E	1.2	Bükkösd
24	8:37:07.9	48.283N	21.277E	2.2	Sima
24	9:22:33.5	47.192N	18.307E	1.0	Székesfehérvár
27	9:57:23.9	47.861N	19.154E	1.7	Nőtincs
27	9:57:56.1	47.950N	20.143E	1.8	Szajla
27	12:55:29.4	48.545N	20.796E	1.3	Bódvalenke
28	7:13:30.3	47.932N	19.204E	1.2	Bánk
28	8:32:49.7	48.606N	20.737E	1.5	Slovakia
28	9:10:31.3	47.191N	18.292E	1.1	Sárkeszi
28	9:32:06.4	47.887N	19.758E	1.5	Szurdokpüspöki
29	7:51:06.6	46.943N	17.275E	1.3	Sümegprága
29	7:59:58.3	48.612N	20.758E	1.4	Slovakia
29	8:28:58.0	47.328N	18.451E	1.9	Zámoly
29	8:59:02.5	47.905N	19.402E	1.4	Becske
30	7:43:20.0	47.563N	18.462E	1.2	Tatabánya
30	8:05:29.3	48.310N	21.469E	1.7	Tolcsva
30	8:25:10.5	45.881N	18.385E	1.2	Kisharsány
30	9:51:09.8	48.550N	20.773E	2.0	Komjáti
30	11:25:43.3	47.566N	18.434E	1.2	Tatabánya
31	8:34:00.7	48.492N	18.762E	1.8	Slovakia
31	8:41:03.5	47.303N	17.643E	1.2	Homokbödöge
31	9:54:03.0	46.130N	18.031E	1.0	Hetvehely
31	9:55:36.0	46.132N	17.984E	1.1	Dinnyeberki
31	10:43:22.6	47.197N	18.289E	0.9	Sárkeszi

JÚNIUS / JUNE, 2019

03	8:09:30.9	47.294N	17.645E	2.0	Homokbödöge
03	9:48:02.9	48.247N	21.225E	2.1	Tállya
03	11:00:30.0	48.882N	20.931E	1.9	Slovakia
04	8:20:11.3	47.874N	19.843E	1.7	Mátraszentimre
04	9:01:41.0	48.591N	20.781E	1.5	Slovakia
04	9:50:17.2	47.199N	18.303E	0.9	Székesfehérvár
04	10:59:22.0	48.891N	20.974E	2.0	Slovakia
04	11:05:28.3	47.052N	18.028E	1.4	Balatonfűzfő

05	8:55:48.8	48.585N	20.764E	1.6	Slovakia
05	9:38:37.7	47.230N	18.273E	0.7	Iszkaszentgyörgy
05	10:11:26.9	48.678N	19.931E	1.4	Slovakia
06	5:57:31.8	47.291N	18.351E	1.2	Magyaralmás
06	7:57:34.2	48.521N	19.317E	1.5	Slovakia
06	8:20:00.7	48.595N	20.747E	1.5	Slovakia
06	8:30:53.1	46.022N	18.098E	1.3	Zók
06	8:46:35.0	47.324N	18.449E	1.3	Zámoly
06	10:46:47.3	48.508N	18.674E	1.4	Slovakia
07	7:54:52.0	47.728N	18.497E	1.8	Lábatlan
07	9:28:41.5	47.232N	18.250E	1.0	Iszkaszentgyörgy
07	10:21:59.7	48.608N	20.821E	1.7	Slovakia
07	11:00:30.3	48.875N	20.907E	1.7	Slovakia
08	10:09:55.2	48.051N	19.641E	1.4	Sóshartyán
08	10:11:32.6	48.034N	19.648E	1.3	Lucfalva
10	7:36:08.9	48.616N	20.736E	1.4	Slovakia
11	8:45:37.4	48.604N	20.769E	1.8	Slovakia
11	9:23:26.8	47.313N	18.441E	1.5	Zámoly
11	10:53:46.8	48.342N	19.836E	1.5	Slovakia
11	11:11:09.3	47.100N	18.028E	0.9	Királyszentistván
12	10:00:51.9	47.207N	18.257E	1.0	Csór
12	10:48:51.4	48.251N	21.242E	2.2	Tállya
13	7:55:26.6	47.310N	18.313E	0.8	Söréd
14	6:52:21.9	46.045N	18.344E	1.3	Magyarsarlós
14	7:47:19.0	48.774N	19.333E	1.2	Slovakia
14	9:28:07.9	47.195N	18.288E	0.9	Sárkeszi
17	7:59:31.6	47.322N	17.621E	1.2	Ugod
17	9:53:05.1	48.545N	20.780E	1.4	Komjáti
18	6:32:39.0	47.993N	19.994E	1.1	Mátraballa
18	7:09:23.0	46.864N	17.257E	1.7	Zalaszántó
18	8:50:51.3	48.620N	20.704E	1.5	Slovakia
18	8:59:54.4	47.946N	19.892E	1.6	Dorogháza
18	11:20:43.0	46.835N	17.451E	1.6	Kisapáti
19	8:39:52.0	48.341N	19.003E	1.8	Slovakia
19	9:34:53.5	48.407N	18.465E	1.3	Slovakia
19	9:44:39.0	47.330N	18.435E	1.5	Zámoly
19	10:04:03.0	47.309N	18.462E	1.7	Pátka
20	6:49:38.5	47.572N	18.404E	1.2	Tatabánya
20	6:54:59.6	47.326N	18.459E	2.0	Pátka
21	8:49:12.1	46.181N	18.285E	1.1	Zobákpuszta
21	9:13:45.8	47.214N	18.289E	1.2	Iszkaszentgyörgy
24	8:29:46.2	46.132N	18.059E	1.2	Hetvehely
24	8:38:40.1	48.613N	20.741E	1.5	Slovakia
24	8:58:03.0	46.161N	18.314E	1.1	Zobákpuszta
24	9:16:26.3	47.238N	18.239E	0.8	Iszkaszentgyörgy
24	10:30:12.4	47.820N	19.082E	1.3	Verőce
25	7:17:53.0	47.295N	17.651E	1.5	Homokbödöge
25	7:32:56.5	47.863N	19.149E	1.1	Nőtincs
25	8:28:52.0	47.906N	19.414E	2.1	Becske
25	11:41:30.2	48.609N	20.754E	1.5	Slovakia
26	7:16:29.9	47.229N	18.275E	0.8	Iszkaszentgyörgy
26	8:55:09.1	48.340N	18.545E	1.5	Slovakia
26	9:09:35.2	48.606N	20.625E	1.4	Slovakia
26	11:38:36.3	47.322N	18.447E	1.7	Zámoly
27	7:29:14.4	46.156N	18.311E	0.9	Vasas
27	7:42:07.7	46.139N	18.044E	1.2	Hetvehely
27	8:02:43.1	47.209N	18.277E	1.1	Iszkaszentgyörgy
27	9:05:05.3	47.543N	18.499E	1.3	Szárliget
27	9:49:06.4	48.609N	20.559E	1.4	Slovakia
27	12:59:01.9	47.104N	19.348E	1.7	Tatárszentgyörgy

27	13:18:42.2	47.082N	19.435E	1.8	Tatárszentgyörgy
27	13:35:38.7	47.078N	19.416E	1.5	Tatárszentgyörgy
28	11:01:40.2	47.327N	18.434E	1.8	Zámoly

JÚLIUS / JULY, 2019

01	7:36:39.6	47.200N	18.295E	1.1	Székesfehérvár
01	8:00:49.6	48.275N	21.277E	2.2	Sima
01	8:19:52.4	48.655N	18.605E	1.2	Slovakia
02	7:12:04.0	48.566N	20.693E	1.5	Bódvaszilas
02	7:39:00.0	47.293N	18.334E	0.3	Magyaralmás
02	7:46:18.2	47.292N	18.324E	1.1	Magyaralmás
02	7:54:28.7	47.856N	19.138E	1.6	Szendehely
02	9:09:00.9	47.837N	19.875E	1.1	Gyöngyösoroszi
02	9:25:47.8	47.210N	18.284E	0.9	Iszkaszentgyörgy
03	5:43:57.9	47.803N	19.954E	1.2	Gyöngyössolymos
03	7:56:18.7	47.057N	18.093E	1.0	Balatonkenese
03	8:25:30.0	47.304N	18.462E	1.9	Pátka
03	8:38:21.9	47.252N	18.252E	0.6	Kincsesbánya
03	8:57:09.6	48.540N	19.341E	1.8	Slovakia
04	6:07:19.4	47.336N	18.460E	1.5	Lovasberény
04	7:43:36.5	47.354N	18.503E	2.2	Lovasberény
04	7:57:39.1	48.230N	21.242E	2.3	Tállya
04	8:01:19.7	48.240N	18.768E	1.9	Slovakia
04	8:03:53.7	48.571N	20.761E	1.4	Tornanádaska
04	8:26:53.4	46.177N	18.285E	1.2	Zobákpuszta
04	9:11:45.2	47.212N	18.276E	1.0	Iszkaszentgyörgy
04	13:10:15.9	46.792N	17.330E	1.5	Keszthely
04	17:49:51.2	48.550N	20.839E	1.8	Hidvégardó
05	7:04:42.9	47.514N	18.612E	1.6	Bicske
05	7:39:15.9	47.318N	17.657E	1.8	Bakonykoppány
05	7:41:49.9	47.109N	18.004E	1.0	Litér
05	7:50:45.6	48.241N	21.256E	2.0	Tállya
06	8:49:32.3	46.210N	18.236E	1.2	Komló
08	8:09:50.8	46.066N	18.061E	1.4	Boda
08	8:28:29.3	48.569N	20.720E	1.3	Komjáti
08	8:49:48.6	47.873N	18.839E	1.3	Márianosztra
09	6:24:22.3	47.497N	18.634E	1.1	Bicske
09	7:29:07.8	47.799N	19.066E	1.4	Verőce
09	8:53:36.6	47.878N	19.184E	1.1	Felsőpetény
09	9:29:36.8	47.203N	18.289E	1.1	Csór
10	6:29:42.7	47.301N	18.330E	1.3	Magyaralmás
10	7:31:54.0	45.856N	18.407E	1.2	Nagyharsány
11	6:24:05.8	48.160N	21.323E	1.7	Bodrogkeresztúr
11	8:36:47.1	47.200N	18.259E	0.8	Csór
11	9:18:33.8	46.994N	22.244E	2.0	Romania
11	9:20:27.5	48.589N	20.764E	1.1	Slovakia
12	7:12:00.1	47.334N	18.458E	1.5	Lovasberény
12	7:45:12.6	47.904N	19.412E	1.6	Becske
12	9:06:48.4	47.049N	17.766E	2.0	Tótvázsony
15	8:20:22.1	47.514N	18.572E	1.5	Nagyegyháza
16	7:44:41.5	47.671N	18.527E	1.9	Héreg
16	10:36:48.0	47.301N	18.343E	1.4	Magyaralmás
17	6:31:48.5	47.353N	18.433E	1.9	Gánt
17	6:42:37.4	47.303N	17.656E	1.5	Bakonykoppány
17	7:15:30.3	48.704N	18.858E	0.7	Slovakia
17	8:10:31.0	48.205N	21.217E	2.4	Rátka
17	8:13:40.0	48.342N	21.571E	1.6	Károlyfalva
17	9:05:25.3	48.565N	20.719E	1.3	Komjáti
18	7:12:05.5	48.569N	19.361E	1.4	Slovakia
18	7:24:53.0	46.129N	18.048E	1.0	Hetvehely

18	9:18:34.7	46.951N	22.247E	1.9	Romania
18	10:10:49.9	47.863N	19.160E	1.4	Ősagárd
19	8:13:39.7	47.194N	18.311E	1.2	Székesfehérvár
19	8:31:40.3	48.237N	21.285E	2.1	Tállya
22	7:12:37.8	47.951N	20.064E	1.7	Mátraderecske
22	7:28:46.1	48.312N	18.922E	1.6	Slovakia
22	9:29:25.0	48.838N	20.083E	1.5	Slovakia
22	10:46:17.4	47.326N	18.439E	1.7	Zámoly
23	8:10:51.8	45.855N	18.409E	1.3	Nagyharsány
24	5:53:35.4	47.883N	19.397E	1.2	Bercel
24	7:23:01.3	47.323N	18.419E	1.6	Zámoly
24	9:20:10.5	47.220N	18.228E	0.7	Csór
25	8:29:33.7	48.446N	19.122E	1.6	Slovakia
25	8:51:41.7	47.870N	19.181E	1.6	Ősagárd
27	6:29:07.8	46.110N	18.043E	1.3	Bükkösd
29	7:36:59.3	47.072N	17.857E	2.2	Nemesvámos
29	10:29:00.3	47.085N	17.890E	1.5	Veszprém
30	9:07:34.1	47.187N	18.308E	1.3	Székesfehérvár
30	9:32:34.3	48.604N	20.736E	1.4	Slovakia
31	6:46:21.4	47.332N	18.465E	2.0	Lovasberény
31	6:47:09.6	47.411N	18.344E	1.2	Gánt
31	8:17:47.7	47.335N	18.397E	2.0	Zámoly
31	10:01:40.0	47.177N	18.296E	1.3	Sárkeszi
31	10:30:55.9	47.390N	18.451E	1.3	Csákvár
31	11:04:53.5	48.525N	20.799E	1.5	Bódvalenke

AUGUSZTUS / AUGUST, 2019

01	7:14:50.0	47.197N	18.214E	1.0	Csór
01	7:23:08.4	47.175N	18.223E	1.2	Csór
01	8:11:52.8	48.576N	20.738E	1.2	Tornanádaska
01	12:14:16.8	48.250N	21.255E	1.8	Tállya
02	7:54:52.7	48.287N	21.517E	2.1	Bodrogolaszi
02	8:35:17.9	48.361N	19.854E	1.5	Slovakia
02	8:44:49.0	46.184N	18.279E	1.1	Zobákpuszta
02	9:38:58.8	46.122N	18.084E	1.8	Abaliget
02	10:28:44.7	47.188N	18.306E	2.0	Székesfehérvár
02	12:14:49.5	48.324N	21.543E	1.6	Hercegkút
05	8:09:43.2	47.906N	19.414E	1.7	Becske
05	9:51:57.5	48.571N	20.385E	1.7	Slovakia
06	8:12:29.8	48.604N	20.753E	1.3	Slovakia
06	11:04:22.5	47.840N	20.151E	1.6	Kisnána
07	8:16:20.2	47.784N	19.032E	1.8	Dunabogdány
07	8:37:37.5	48.615N	20.741E	1.4	Slovakia
07	9:51:29.3	48.597N	20.877E	1.4	Slovakia
08	5:57:18.3	47.865N	19.986E	1.3	Mátraháza
08	6:50:58.0	47.360N	18.424E	1.5	Gánt
08	11:19:38.8	47.858N	19.140E	1.5	Nőtincs
09	8:17:45.0	46.098N	18.054E	1.3	Bakonya
09	8:51:31.8	48.559N	20.767E	1.8	Tornanádaska
12	6:28:02.7	47.292N	18.310E	0.9	Magyaralmás
12	7:22:41.7	47.303N	17.685E	2.0	Bakonykoppány
12	9:26:45.9	48.373N	19.860E	1.5	Slovakia
13	8:54:00.9	48.604N	20.749E	1.4	Slovakia
13	8:55:25.0	48.239N	21.240E	1.9	Tállya
13	9:01:40.3	47.200N	18.299E	0.6	Székesfehérvár
13	10:58:05.1	47.109N	17.990E	1.6	Litér
14	10:04:05.2	47.267N	18.261E	0.9	Kincsesbánya
14	10:27:44.3	48.884N	20.505E	1.5	Slovakia
14	10:40:02.8	48.756N	20.402E	1.2	Slovakia
16	6:11:10.4	47.872N	19.387E	1.5	Bercel

16	7:29:56.5	47.852N	19.118E	1.5	Szendehely
16	8:21:14.3	47.008N	22.326E	1.6	Romania
16	8:29:50.2	48.221N	21.251E	2.7	Tállya
16	8:41:53.0	46.084N	18.083E	1.3	Kővágótőttős
16	10:00:58.6	47.565N	16.354E	1.4	Austria
19	7:49:24.6	48.699N	18.665E	1.3	Slovakia
21	8:21:42.8	47.850N	19.141E	1.8	Szendehely
21	8:31:43.8	47.114N	17.992E	1.5	Litér
21	10:33:37.4	48.472N	19.549E	1.6	Slovakia
22	7:38:42.2	47.319N	18.420E	0.7	Zámoly
22	9:39:29.3	47.194N	18.275E	0.8	Csór
23	9:25:53.2	48.213N	21.274E	2.5	Mád
24	8:55:55.3	48.035N	19.644E	1.4	Lucfalva
26	8:17:18.6	47.336N	18.444E	1.2	Zámoly
26	9:14:06.3	48.637N	20.851E	1.7	Slovakia
26	9:14:43.7	48.585N	20.785E	1.7	Slovakia
27	8:09:37.8	47.843N	19.874E	1.6	Gyöngyösoroszi
27	9:13:08.7	48.588N	20.743E	1.5	Slovakia
27	9:53:55.2	47.208N	18.293E	0.7	Moha
27	11:36:28.1	48.584N	20.721E	1.6	Slovakia
28	8:57:36.8	48.359N	19.823E	1.7	Slovakia
28	9:49:35.8	47.236N	18.330E	0.9	Moha
28	10:03:21.1	47.872N	19.135E	1.6	Nőtincs
29	7:47:52.4	47.300N	18.429E	1.1	Zámoly
29	8:22:25.6	46.126N	18.060E	1.3	Hetvehely
29	8:33:53.1	48.235N	21.244E	2.0	Tállya
29	8:54:36.1	46.167N	18.288E	0.9	Zobákpuszta
30	6:06:12.5	47.188N	18.199E	0.9	Csór
30	7:43:18.0	47.083N	17.902E	1.3	Veszprém
30	7:47:05.3	47.860N	19.103E	1.1	Szendehely
30	7:56:52.5	47.546N	18.491E	1.1	Szárliget

SZEPTEMBER / SEPTEMBER, 2019

02	6:51:21.5	47.966N	19.446E	1.7	Terény
02	8:37:36.2	47.093N	18.062E	1.4	Vilonya
02	11:00:31.6	48.637N	20.139E	1.9	Slovakia
03	8:43:35.7	48.600N	20.747E	1.6	Slovakia
04	7:52:00.3	48.595N	20.768E	1.5	Slovakia
04	8:12:20.1	47.873N	19.148E	1.6	Nőtincs
04	8:46:45.1	47.109N	17.955E	1.8	Kádárta
04	11:04:55.2	47.228N	18.241E	0.8	Iszkaszentgyörgy
05	6:19:02.5	47.320N	18.423E	1.7	Zámoly
05	7:19:10.7	48.074N	20.667E	1.2	Bükkszentlászló
05	7:28:00.6	48.585N	20.759E	1.6	Slovakia
05	9:05:34.7	47.323N	18.450E	2.0	Zámoly
05	9:07:53.5	48.646N	19.936E	1.7	Slovakia
05	9:16:07.5	47.745N	18.704E	1.2	Dorog
05	9:44:25.1	47.196N	18.289E	1.2	Sárkeszi
06	7:18:17.8	48.165N	21.229E	2.4	Szerencs
06	11:04:21.2	48.375N	19.862E	1.8	Slovakia
07	10:51:05.6	48.025N	19.663E	1.3	Lucfalva
07	11:11:48.7	48.040N	19.659E	1.2	Lucfalva
09	6:52:35.7	48.100N	21.369E	1.7	Tokaj
09	8:57:08.1	46.197N	18.280E	1.2	Komló
10	7:34:42.3	47.269N	17.617E	2.0	Nagytevel
10	9:41:50.2	47.240N	18.254E	0.5	Iszkaszentgyörgy
10	14:25:58.5	47.120N	19.341E	1.8	Örkény
11	8:18:41.7	48.611N	20.770E	1.7	Slovakia
11	8:30:13.1	47.928N	20.113E	1.9	Recsk
11	11:10:06.2	47.197N	18.277E	1.0	Csór

12	7:07:38.6	47.346N	18.446E	1.9	Gánt
12	8:12:52.1	46.119N	18.070E	1.1	Abaliget
12	9:04:50.1	48.570N	20.756E	1.6	Tornanádaska
12	9:13:28.9	48.327N	21.228E	2.0	Boldogkőújfalu
12	9:52:21.6	47.216N	18.274E	1.1	Iszkaszentgyörgy
12	9:58:15.3	48.389N	18.588E	1.8	Slovakia
13	9:59:43.2	47.561N	18.589E	1.8	Gyermely
14	9:55:46.0	47.318N	16.344E	2.0	Austria
16	8:59:02.3	46.848N	17.310E	2.1	Vállus
16	9:22:32.3	48.366N	19.851E	1.5	Slovakia
16	9:23:39.5	47.242N	18.225E	0.8	Bakonykúti
17	9:17:37.8	47.214N	18.290E	1.0	Iszkaszentgyörgy
17	10:21:58.1	47.329N	18.412E	2.0	Zámoly
17	10:39:36.6	47.336N	18.458E	1.8	Lovasberény
18	7:48:39.1	46.099N	18.037E	1.2	Bükkösd
18	9:04:09.0	47.200N	18.275E	1.0	Csór
18	9:18:48.4	47.192N	18.295E	1.0	Sárkeszi
19	6:31:33.3	47.192N	18.163E	0.9	Pétfürdő
19	6:33:43.8	47.190N	18.191E	1.0	Csór
19	8:23:39.8	47.904N	19.412E	1.9	Bercel
20	6:40:04.2	48.050N	20.686E	1.2	Kisgyőr
20	9:53:46.7	48.671N	20.713E	1.7	Slovakia
21	8:46:40.0	46.170N	18.301E	1.0	Zobákpuszta
24	8:32:23.0	45.861N	18.417E	1.3	Villány
24	8:51:25.6	46.116N	18.017E	1.2	Bükkösd
24	9:38:55.2	48.370N	19.808E	1.8	Slovakia
24	11:06:29.8	47.201N	18.286E	0.7	Csór
24	13:58:41.9	48.535N	20.746E	1.8	Bódvaszilas
25	6:31:48.9	47.897N	19.423E	1.8	Bercel
25	9:03:00.5	47.845N	19.057E	1.8	Verőce
25	9:13:32.7	45.723N	17.267E	1.9	Croatia
25	9:31:14.1	47.213N	18.267E	0.9	Iszkaszentgyörgy
25	9:58:00.4	47.085N	17.966E	1.5	Litér
26	8:49:21.5	48.609N	20.766E	1.5	Slovakia
26	10:14:37.7	48.645N	21.383E	2.2	Slovakia
26	11:09:35.9	47.333N	18.451E	1.9	Zámoly
27	11:06:01.2	48.199N	21.211E	2.1	Ond
28	8:32:19.7	46.140N	18.320E	0.9	Vasas
30	7:32:18.8	47.909N	19.410E	1.9	Becske
30	9:23:40.2	48.600N	20.722E	1.6	Slovakia
30	10:47:43.2	47.208N	18.303E	0.5	Székesfehérvár

OKTÓBER / OCTOBER, 2019

01	8:00:36.8	48.000N	20.354E	1.4	Szarvaskő
02	6:25:56.3	47.300N	18.328E	1.0	Magyaralmás
02	7:30:16.0	47.339N	18.432E	1.5	Zámoly
02	10:05:33.5	48.604N	20.770E	1.6	Slovakia
03	8:32:00.1	48.251N	18.796E	2.2	Slovakia
03	8:35:57.7	46.233N	18.222E	1.2	Mecsekpölöske
04	7:43:06.9	48.110N	21.336E	1.6	Tarcal
04	8:23:25.1	48.588N	20.762E	1.8	Slovakia
04	9:57:50.0	47.185N	18.301E	0.9	Sárkeszi
04	10:08:25.2	47.594N	16.343E	1.5	Austria
04	11:13:23.1	48.230N	21.247E	2.1	Tállya
07	11:08:54.0	47.888N	19.184E	1.4	Felsőpetény
08	7:09:27.2	47.300N	18.328E	0.9	Magyaralmás
08	9:22:31.0	48.589N	20.717E	1.5	Slovakia
08	9:41:35.0	47.201N	18.292E	0.8	Székesfehérvár
09	8:03:44.0	47.323N	18.428E	1.7	Zámoly
09	9:30:23.3	47.193N	18.297E	0.7	Székesfehérvár

09	10:48:14.3	48.305N	21.170E	1.8	Gibárt
10	7:02:24.5	47.183N	18.201E	0.8	Csór
10	8:16:47.1	46.851N	17.290E	2.1	Vállus
10	8:44:32.1	46.175N	18.306E	1.2	Zobákpuszta
10	9:12:58.0	48.573N	20.795E	1.5	Tornanádaska
10	9:27:13.7	47.331N	18.448E	1.8	Zámoly
10	9:36:44.3	47.202N	18.278E	1.0	Csór
11	9:59:13.2	46.815N	17.310E	2.2	Vállus
14	7:12:13.8	47.583N	18.484E	1.5	Vértestolna
14	10:03:44.7	48.583N	20.789E	1.5	Tornanádaska
14	10:05:27.7	47.858N	19.153E	1.6	Ősagárd
15	7:57:46.0	47.167N	17.747E	1.5	Herend
15	8:48:09.0	47.206N	18.299E	1.2	Székesfehérvár
15	9:41:32.6	47.231N	18.247E	0.8	Iszkaszentgyörgy
15	9:42:26.1	47.973N	20.049E	1.4	Mátraballa
15	9:45:58.7	48.370N	19.820E	1.3	Slovakia
16	7:05:52.4	47.341N	18.434E	1.5	Zámoly
16	8:25:16.8	47.307N	18.450E	1.8	Pátka
16	8:37:36.2	46.136N	18.044E	1.5	Hetvehely
16	8:53:04.7	45.914N	18.347E	1.0	Vokány
16	9:01:46.7	48.548N	20.745E	1.3	Komjáti
16	9:59:49.7	46.977N	22.318E	1.7	Romania
16	10:43:09.0	47.049N	18.354E	1.0	Tác
17	8:36:42.4	46.178N	18.292E	1.3	Zobákpuszta
18	8:43:18.4	48.577N	20.768E	1.7	Tornanádaska
18	9:16:52.9	47.244N	18.245E	0.8	Iszkaszentgyörgy
18	9:59:43.1	47.534N	18.530E	1.6	Nagyegyháza
21	8:49:13.0	47.734N	18.965E	1.5	Pilisszentlászló
21	8:52:03.6	48.567N	20.763E	1.8	Tornanádaska
21	9:13:22.9	46.157N	18.302E	1.3	Vasas
21	9:14:11.0	46.111N	18.062E	1.1	Bakonya
22	7:48:41.2	45.862N	18.404E	1.2	Nagyharsány
22	9:04:00.1	47.985N	20.412E	1.6	Felsőtárkány
22	9:47:51.9	48.211N	21.231E	2.2	Rátka
22	10:04:19.9	47.102N	17.963E	1.2	Kádárta
23	9:50:11.7	48.582N	20.767E	1.7	Slovakia
24	8:25:30.9	47.676N	18.519E	1.8	Héreg
24	14:30:42.1	47.137N	19.305E	1.9	Örkény
25	9:07:47.0	47.415N	18.712E	1.5	Pusztazámor
25	9:36:38.2	47.222N	18.286E	0.8	Iszkaszentgyörgy
26	7:06:15.9	48.402N	18.653E	2.0	Slovakia
28	8:13:03.7	47.359N	18.406E	2.0	Gánt
28	10:33:20.2	47.194N	18.286E	1.1	Sárkeszi
28	12:27:58.3	46.117N	18.075E	1.4	Abaliget
29	7:34:52.0	47.293N	18.322E	1.0	Magyaralmás
29	9:30:14.9	47.303N	18.451E	1.8	Pátka
29	10:08:07.7	48.718N	19.941E	1.4	Slovakia
29	11:12:24.3	48.550N	20.770E	1.5	Komjáti
30	10:31:01.5	47.714N	18.522E	1.9	Lábatlan
30	12:18:21.1	48.234N	21.243E	2.5	Tállya
31	9:34:13.5	47.078N	17.855E	1.5	Nemesvámos
31	9:58:28.8	48.181N	19.840E	1.6	Slovakia
31	10:16:58.3	47.926N	19.395E	1.6	Becske
31	10:18:55.8	46.149N	18.294E	1.0	Vasas

NOVEMBER / NOVEMBER, 2019

02	9:34:27.1	46.187N	18.288E	1.1	Zobákpuszta
04	9:15:07.1	48.576N	20.760E	1.6	Tornanádaska
04	9:48:12.2	47.218N	18.303E	1.1	Moha
05	10:38:14.8	48.350N	19.865E	1.7	Slovakia

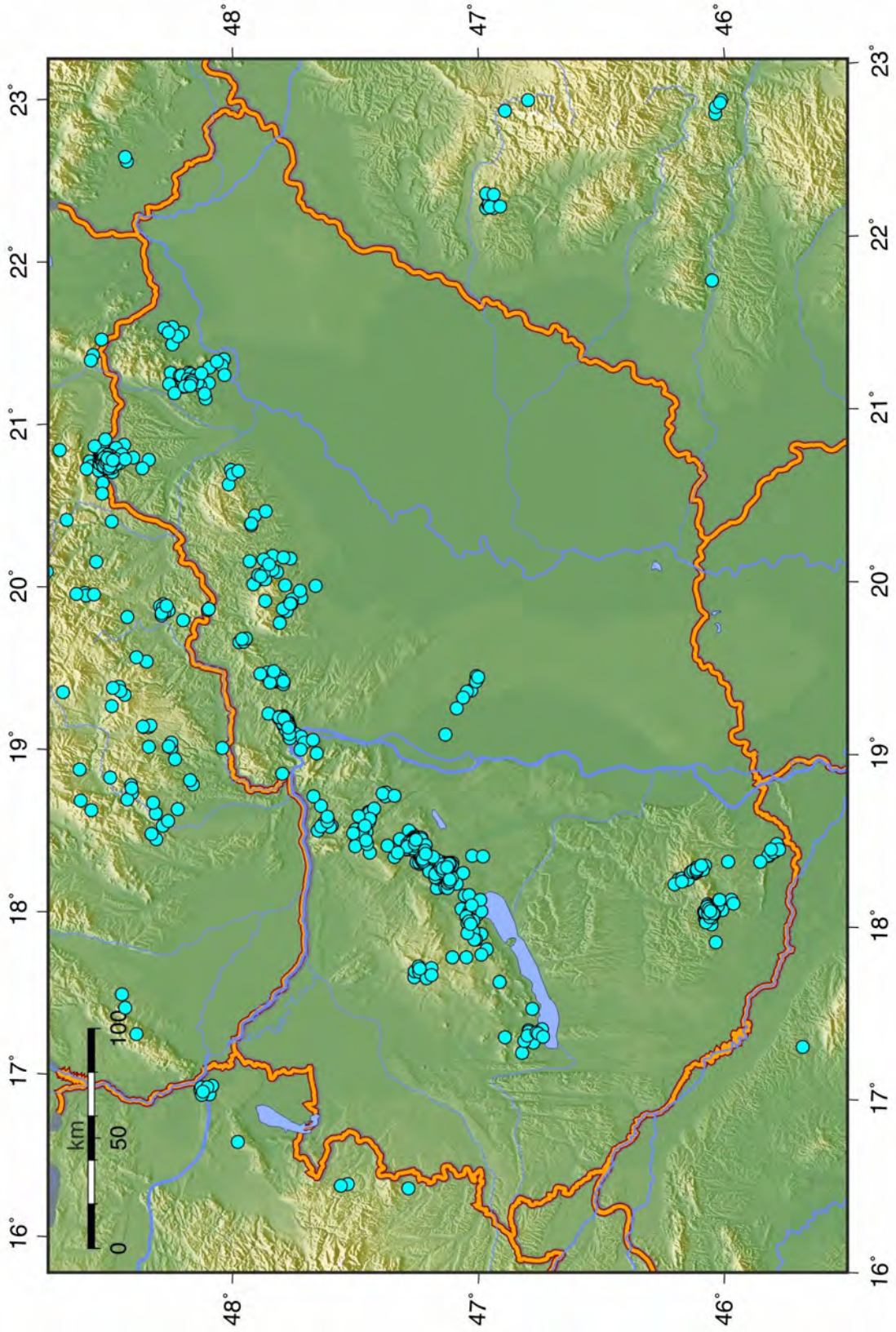
06	9:26:28.5	48.588N	20.747E	1.6	Slovakia
06	11:02:07.6	46.129N	18.077E	1.0	Abaliget
07	10:47:41.1	47.213N	18.265E	0.6	Iszkaszentgyörgy
07	11:12:13.3	46.807N	17.302E	1.6	Keszthely
07	13:36:40.2	48.480N	20.777E	1.4	Martonyi
08	9:09:44.3	48.568N	20.743E	1.7	Komjáti
08	9:47:16.4	47.213N	18.281E	1.0	Iszkaszentgyörgy
08	9:57:24.5	48.178N	21.133E	2.3	Legyesbénye
08	12:01:38.3	47.523N	18.419E	1.4	Vértessomló
11	8:48:44.7	47.329N	18.426E	1.4	Zámoly
11	8:50:02.0	48.130N	21.359E	1.7	Tarcal
12	7:32:43.6	47.107N	17.892E	1.4	Veszprém
12	9:19:08.5	46.173N	18.292E	1.1	Zobákpuszta
12	9:32:59.6	48.512N	20.769E	1.5	Tornaszentandrás
13	8:54:07.1	46.122N	18.038E	1.5	Bükkösd
13	11:19:26.3	47.847N	19.128E	1.9	Szendehely
14	8:26:31.9	47.285N	18.417E	1.3	Zámoly
14	8:39:15.2	48.606N	20.749E	1.5	Slovakia
14	8:41:03.3	47.851N	19.118E	1.5	Szendehely
14	8:59:15.8	45.839N	18.422E	1.6	Nagyharsány
14	10:04:59.5	47.870N	19.401E	1.6	Bercel
14	10:32:11.6	47.188N	18.307E	0.6	Székesfehérvár
14	10:54:18.2	48.600N	20.805E	1.7	Slovakia
14	12:18:57.6	48.237N	21.230E	2.1	Tállya
15	10:01:06.1	47.398N	18.371E	1.4	Gánt
18	10:53:16.4	47.963N	20.044E	1.8	Mátraballa
18	11:39:25.7	47.183N	18.214E	0.8	Csór
18	13:28:11.6	47.869N	20.158E	1.6	Tarnaszentmária
18	14:38:58.7	47.084N	19.403E	1.6	Tatárszentgyörgy
19	9:22:54.4	48.585N	20.799E	1.3	Tornanádaska
19	10:16:09.0	47.940N	20.440E	1.4	Noszvaj
19	13:28:53.7	47.074N	19.430E	1.6	Tatárszentgyörgy
20	8:04:41.5	47.325N	18.450E	1.9	Zámoly
20	8:07:21.1	48.263N	21.211E	1.8	Abaújszántó
20	8:34:21.0	46.078N	18.121E	1.7	Cserkút
20	10:50:08.7	48.596N	20.730E	1.6	Slovakia
21	7:30:45.5	47.295N	18.334E	0.8	Magyaralmás
21	10:30:54.3	48.240N	21.214E	2.3	Tállya
21	12:30:44.6	48.121N	18.996E	2.0	Slovakia
22	9:30:46.6	48.099N	21.275E	1.5	Taktabáj
22	10:04:17.3	48.599N	20.782E	1.7	Slovakia
25	9:50:56.5	47.800N	18.989E	1.7	Kisoroszi
26	10:07:43.4	46.175N	18.286E	1.5	Zobákpuszta
26	11:33:03.1	48.584N	20.769E	1.5	Slovakia
27	8:39:10.4	47.286N	18.384E	2.1	Zámoly
27	8:42:08.7	47.846N	19.083E	1.9	Szendehely
28	8:32:05.7	46.971N	17.605E	1.9	Vigántpetend
28	11:43:41.8	48.182N	21.162E	1.9	Szerencs
28	12:10:02.6	48.193N	21.289E	2.1	Mád
29	9:42:37.9	47.687N	18.553E	1.7	Nagysáp
30	10:14:58.2	46.174N	18.296E	1.1	Zobákpuszta

DECEMBER / DECEMBER, 2019

02	10:00:16.3	48.601N	20.728E	1.8	Slovakia
02	11:40:02.9	47.750N	19.047E	1.8	Tahitótfalu
03	9:21:51.9	46.103N	18.039E	1.5	Bükkösd
03	9:53:29.0	47.196N	18.286E	0.8	Sárkeszi
03	9:58:03.2	48.579N	20.715E	1.7	Slovakia
04	10:29:20.6	48.573N	20.771E	1.8	Tornanádaska
04	10:43:27.7	47.869N	19.176E	1.4	Ősagárd

04	13:23:40.5	46.788N	17.285E	1.7	Keszthely
05	8:42:04.9	45.870N	18.419E	1.2	Villány
05	10:49:11.2	48.858N	20.529E	2.0	Slovakia
05	11:22:55.0	48.490N	18.743E	1.6	Slovakia
05	13:14:09.3	47.911N	19.464E	1.7	Szanda
06	7:50:05.2	47.254N	18.347E	0.7	Sárkeresztes
09	10:05:02.6	48.593N	20.751E	1.7	Slovakia
09	12:16:52.3	48.008N	20.134E	1.5	Pétervására
10	9:42:13.8	46.155N	18.320E	1.1	Vasas
10	10:36:33.0	48.586N	20.760E	1.9	Slovakia
11	8:20:02.5	47.251N	17.637E	1.5	Németbánya
11	10:08:38.3	47.851N	19.122E	1.7	Szendehely
11	10:13:03.4	47.738N	19.981E	1.0	Karácsond
11	11:38:17.7	48.176N	19.846E	1.9	Somoskő
12	7:40:47.1	47.299N	17.673E	1.2	Bakonykoppány
12	9:44:57.9	48.000N	20.364E	1.3	Szarvaskő
12	10:21:25.9	48.573N	20.726E	1.6	Komjáti
12	10:25:01.0	47.689N	18.582E	1.9	Nagysáp
12	12:02:31.7	46.121N	18.063E	1.6	Bükkösd
12	12:14:58.5	46.114N	18.051E	1.5	Bükkösd
13	11:33:53.5	47.528N	18.441E	1.4	Vértessomló
16	10:43:54.4	47.095N	17.947E	1.2	Kádárta
16	12:04:16.3	48.593N	20.894E	1.5	Slovakia
17	7:24:35.1	47.285N	18.367E	0.6	Magyaralmás
17	12:26:15.8	48.574N	19.249E	1.6	Slovakia
18	10:07:01.6	48.582N	20.783E	1.8	Tornanádaska
19	8:52:15.1	48.585N	20.779E	1.7	Slovakia
20	10:11:22.7	48.563N	20.765E	1.5	Tornanádaska
20	12:21:57.3	48.780N	20.834E	1.8	Slovakia
23	6:56:30.8	46.036N	22.810E	2.0	Romania07 11:25:28.8
48.237N	21.257E	1.8	Tállya		
07	12:30:11.4	48.369N	19.837E	1.6	Slovakia
10	10:09:34.3	47.242N	18.274E	0.7	Iszkaszentgyörgy
10	12:16:58.5	47.588N	18.434E	1.6	Tatabánya
11	7:45:52.2	47.299N	18.334E	1.2	Magyaralmás
11	8:47:30.7	47.936N	19.351E	1.1	Magyarnándor
11	8:59:37.5	46.092N	22.684E	1.6	Romania
11	9:28:31.5	48.545N	20.809E	1.4	Bódvalenke
11	9:50:44.8	47.237N	18.269E	1.3	Iszkaszentgyörgy
11	16:32:02.8	48.419N	17.279E	2.0	Slovakia
12	11:01:10.8	48.173N	16.876E	1.8	Austria
12	11:07:20.9	48.576N	20.799E	1.3	Tornanádaska
12	13:30:32.8	48.245N	21.244E	2.1	Tállya
13	8:12:01.3	47.857N	19.150E	1.7	Ősagárd
13	9:30:02.3	47.113N	18.049E	1.2	Vilonya
13	10:01:09.4	45.912N	18.335E	1.0	Vokány
13	10:30:37.0	47.848N	19.136E	1.7	Szendehely
13	10:48:59.6	48.604N	20.760E	1.7	Slovakia
13	11:45:23.9	48.550N	20.779E	1.5	Komjáti
14	8:18:17.7	47.195N	18.163E	1.1	Pétfürdő
14	8:28:13.5	47.165N	18.213E	0.5	Ősi
14	8:36:04.0	47.142N	18.107E	0.3	Öskü
14	11:02:32.0	48.607N	20.753E	1.5	Slovakia
14	11:05:29.5	46.801N	17.360E	1.5	Balatonederics
15	10:44:41.5	48.036N	19.628E	1.3	Nagylóc
15	10:53:11.6	48.045N	19.638E	1.3	Sóshartyán
17	10:57:23.6	45.866N	18.403E	1.7	Kisharsány
17	10:59:53.8	46.822N	17.243E	1.6	Cserszegtomaj
17	11:43:42.9	46.119N	18.054E	1.1	Bükkösd
18	10:18:16.2	48.591N	20.792E	1.6	Slovakia

18	10:30:58.1	48.118N	18.885E	1.6	Slovakia
18	10:37:41.4	47.599N	18.493E	1.5	Tarján
18	11:19:07.1	48.632N	20.864E	1.8	Slovakia
19	10:23:53.7	47.856N	19.129E	1.3	Szendehely
19	10:44:19.1	48.588N	20.759E	1.4	Slovakia
19	11:14:45.4	48.617N	20.801E	1.5	Slovakia
19	11:46:23.9	48.700N	19.924E	1.5	Slovakia
20	9:00:53.1	48.525N	20.740E	1.3	Bódvaszilas
21	9:01:50.0	48.604N	20.808E	1.3	Slovakia
28	9:26:08.5	47.867N	19.150E	1.4	Nőtincs



3.3. ábra A 2019-ben regisztrált robbantások epicentrumai

Figure 3.3. Epicenters of 2019 explosions

FÉSZEKPARAMÉTEREK ÉS FÁZISADATOK

A listában alkalmazott jelek és rövidítések magyarázata:

time: Az esemény kipattanásának ideje (óra:perc:másodperc; UTC).
ML: A rengés Richter-féle lokális magnitúdója.
lat: Az esemény földrajzi szélessége (fok).
lon: Az esemény földrajzi hosszúsága (fok).
h: A fészek mélysége (km).
erh: Horizontális hiba km-ben. ($erh = \sqrt{SDX^2 + SDY^2}$, ahol *SDX* és *SDY* az epicentrum földrajzi szélességének és hosszúságának meghatározási hibái.) Ha *erh* = ---, a kevés rendelkezésre álló adat miatt *erh* nem volt meghatározható.
erz: A fészekmélység meghatározásának hibája (km). *erz* = --- azt jelzi, hogy *erz* nem volt meghatározható a kevés rendelkezésre álló adat miatt.
nr: A számításnál felhasznált fázisadatok száma. Azonos állomásról származó P és S beérkezések 2 adatnak számítanak.
gap: Az állomások közötti legnagyobb irányeltérés (fok).
rms: A számított beérkezési idők átlagnégyzetes hibája (mp). ($rms = \sqrt{\sum R_i^2 / nr}$, ahol R_i az *i* –edik állomás időhibája (reziduál).)
Locality: A rengés földrajzi helyének megnevezése, általában a legközelebbi település neve.
Comments: Az eseménnyel kapcsolatos egyéb közlemény (pl. epicentrális intenzitás).
sta: Az állomás neve. (L. 2. fejezet.)
dist: Az állomás távolsága az epicentrumtól (km).
azm: Az állomás irányszöge az epicentrumból az északi iránytól számítva (fok).
phase: Fázis azonosító; az első betű a kezdetet jellemzi: *e* = lassan emelkedő *i* = hirtelen kitérő; a második és harmadik betű a fázis megnevezése pl. Pn, Pg, Sn, Sg; a negyedik a kitérési irányt jelzi: C=kompresszió/fel, D=dilatáció/le. A *-gal jelzett fázisok nem lettek használva a hipocentrum számításhoz.
hr mn sec: A fázis beérkezési ideje (óra, perc, másodperc).
res: Reziduál (másodperc). ($res = T_{obs} - T_{cal}$, ahol T_{obs} a mért, és T_{cal} a számított menetidő.)

Minden rengésnél, ahol elegendő számú első kitérési adat állt rendelkezésre, megkíséreltük a fészekmechanizmus meghatározását. Az ábrákon az alsó félteke sztereografikus képe látható, **P** a maximális, **T** a minimális feszültségtengely iránya. A fészekmechanizmusokat a 3.3. ábra foglalja össze.

PHASE DATA

Key to phase data encoding

time:	Time of occurrence of event in hours, mins and secs (UTC).
ML:	Richter local magnitude of the earthquake.
lat:	Latitude of the event in degrees.
lon:	Longitude of the event in degrees.
h:	Depth of the hypocenter in km.
erh:	Standard error of the epicenter in km. ($erh = \sqrt{SDX^2 + SDY^2}$, where *SDX* and *SDY* are the standard errors in latitude and longitude respectively, of the epicenter.) If *erh* = ---, this means that *erh* could not be computed because of insufficient data.
erz:	Standard error of the focal depth in km. If *erz* = ---, this means that *erz* could not be computed either because focal depth is fixed in the solution or because of insufficient data.
nr:	Number of station readings used in locating the earthquake. P and S arrivals for the same stations are regarded as 2 readings.
gap:	Largest azimuthal separation in degrees between stations.
rms:	Root mean square error of time residuals in seconds. ($rms = \sqrt{\sum R_i^2 / nr}$, where R_i is the time residual of the ith station.
Locality:	A geographical indication of the epicenter area, usually the nearest settlement.
Comments:	Additional comments about the event, eg. maximum EMS intensity
sta:	Station name. (For details see Chapter 2.)
dist:	Distance from earthquake epicenter to station in km.
azm:	Azimuthal angle between epicenter to station measured from North in degrees.
phase:	Phase identifier; the first letter characterizes onset *e* = emergent *i* = impulsive, the second and third indicate the phase eg. Pn, Pg, Sn and Sg, the fourth indicates the polarity C=compression/up D=dilatation/down. Phases signed by * are not used for hypocenter calculaton.
hr mn sec:	Arrival time of the phase from input data.
res:	Residual of the phase in secs. ($res = T_{obs} - T_{cal}$, where T_{obs} is the observed and T_{cal} is the calculated travel time respectively.

Fault plane solutions were attempted for each event where any information for the stress field could be drawn. Stereographic projections of the lower focal hemisphere are shown, **P** and **T** are the main compression and tension axes respectively. Strike, dip and slip values of the nodal planes are also indicated. Calculations were carried out by computer program FPFIT (Reasenberg and Oppenheimer, 1985). The results are summarized in Fig. 3.3.

1.

```
 2019-01-04  time:  9:03:04.54 UTC  ML= 1.5
   lat: 48.582N  lon: 20.747E  h=  0.0 km
                 erh= 1.8km    erz= 2.2km
   nr= 13        gap= 90       rms=0.51
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.2 240    Pg    9:03:09.01    0.51
                  Sg      03:11.73    0.14
ABAH  48.4 131    Pg    9:03:12.85   -0.33
                  Sg      03:19.12   -0.80
PSZ   97.2 221    Pg    9:03:22.24    0.34
                  Sg      03:35.77    0.33
NIE   98.3 341    Pg    9:03:22.10    0.00
LANS 113.1 304    Pg    9:03:24.31   -0.43
KOLS 118.8  71   ePg    9:03:27.30    1.54
A336 135.1 253    Pn    9:03:28.40   -0.02
                  Sn      03:46.68   -0.36
VYHS 141.4 266    Pn    9:03:29.20   -0.01
                  Sn      03:47.58   -0.87
```

2.

```
 2019-01-05  time:  7:27:10.24 UTC  ML= 2.3
   lat: 47.118N  lon: 21.211E  h=  0.8 km
                 erh= 1.7km    erz= 1.9km
   nr= 44        gap= 73       rms=0.93
   Locality: Füzesgyarmat
   Comments:

sta   dist azm  phase  hr mn  sec     res
SIRR 100.6 160    PgC   7:27:28.41    0.22
                  Sg      27:41.10   -1.10
PKSN 105.0 257    Pg    7:27:28.45   -0.54
                  Sg      27:43.38   -0.25
DRGR 119.9 108    Pg    7:27:31.79    0.15
                  Sg      27:47.05   -1.28
ABAH 131.0   1    Pn    7:27:32.77   -0.74
                  Sn      27:50.04   -1.62
MESR 132.0  88    PnC   7:27:35.02    1.39
                  Sn      27:53.00    1.13
PSZ  133.2 312    Pn    7:27:32.27   -1.51
PKS6 138.1 245    Pn    7:27:34.21   -0.18
                  Sn      27:51.62   -1.61
TRPA 150.5  42    Pn    7:27:36.45    0.51
                  Sn      27:54.68   -1.30
MARR 153.5 109    PnC   7:27:36.81    0.50
                  Sn      27:57.70    1.05
PKS7 155.9 267    Pn    7:27:37.21    0.61
                  Sn      27:56.27   -0.90
PKB2 157.9 252    Pn    7:27:36.96    0.10
                  Sn      27:57.61   -0.02
KECS 161.2 340    Pn    7:27:37.67    0.40
                  Sn      27:57.07   -1.30
PENC 163.6 297    Sn    7:27:58.05   -0.83
SURR 167.1 155    PnD   7:27:37.61   -0.39
                  Sn      27:58.10   -1.56
PKS2 167.6 245    Pn    7:27:38.87    0.80
                  Sn      27:59.66   -0.12
BZS  169.8 169    Pn    7:27:39.02    0.68
                  Sn      28:01.31    1.05
PKB3 172.2 243    Pn    7:27:39.72    1.08
                  Sn      28:00.26   -0.54
BMR  183.3  70    Sn    7:28:05.30    2.03
PKB5 197.5 253    Pn    7:27:43.65    1.86
A336 207.3 307    Sn    7:28:08.92    0.34
PKSG 215.6 278    Sn    7:28:10.25   -0.19
KOLS 216.9  21    Sn    7:28:09.96   -0.75
MORH 220.5 243    Sn    7:28:12.52    1.00
PKSM 220.9 243    Sn    7:28:12.94    1.33
CSKK 225.0 277    Sn    7:28:14.58    2.06
GZR  226.6 148    PnD   7:27:45.99    0.57
                  Sn      28:10.70   -2.16
VYHS 234.6 311    Sn    7:28:15.55    0.90
A339 279.4 286    Sn    7:28:23.49   -1.10
BURA 307.6  80    PnC   7:27:57.41    1.88*
VOIR 350.0 122    PnD   7:28:01.68    0.87*
```

3.

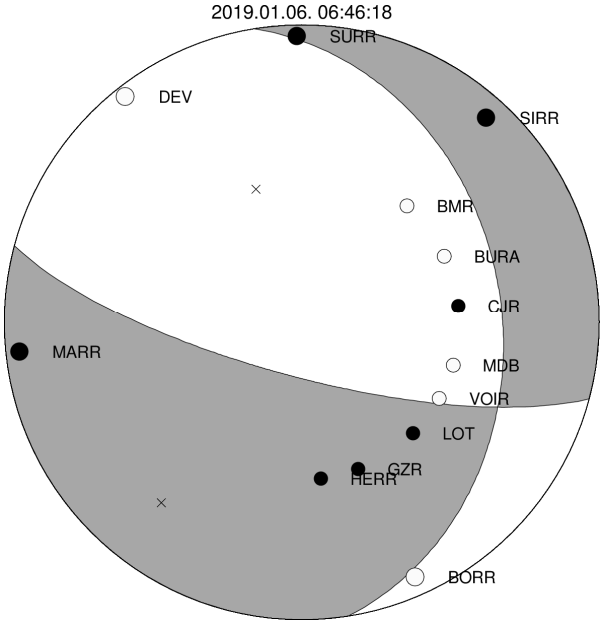
```
 2019-01-05  time:  7:34:27.29 UTC  ML= 1.9
   lat: 47.088N  lon: 21.129E  h= 20.1 km
                 erh= 3.0km    erz= 4.3km
   nr=  5        gap=210       rms=0.14
   Locality: Füzesgyarmat
   Comments:

sta   dist azm  phase  hr mn  sec     res
DRGR 124.9 105    Pn    7:34:47.51    0.17
                  Sn      35:02.79   -0.18
PSZ  131.0 315    Sn    7:35:04.30   -0.03
ABAH 134.6   4    Pn    7:34:48.42   -0.12
                  Sn      35:05.26    0.14
```

4.

```
 2019-01-06  time:  6:46:18.61 UTC  ML= 2.2
   lat: 46.600N  lon: 22.096E  h=  7.3 km
                 erh= 2.1km    erz= 2.0km
   nr= 35        gap= 59       rms=1.14
   Locality: Romania
   Comments:

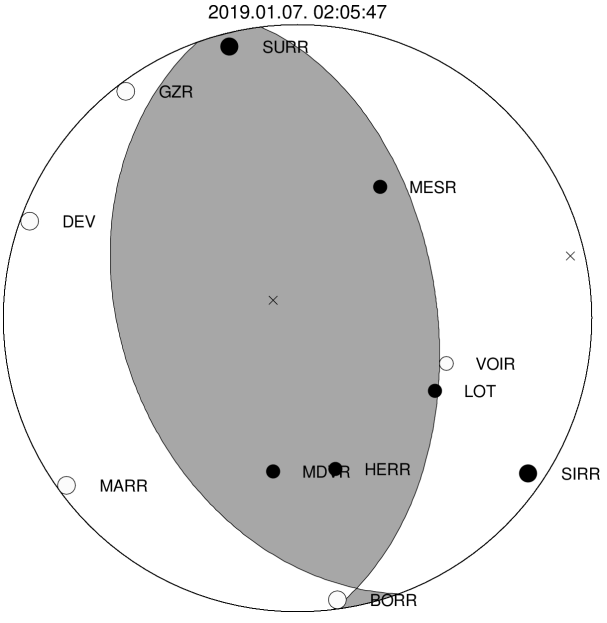
sta   dist azm  phase  hr mn  sec     res
SIRR  49.9 222    PgC   6:46:28.81    1.19
                  Sg      46:34.00   -0.65
DRGR  51.6  66    Pg    6:46:28.01    0.08
                  Sg      46:33.75   -1.44
BORR  59.4 336    PgD   6:46:29.85    0.55
                  Sg      46:36.80   -0.84
MARR  78.8  84    PgC   6:46:32.75    0.01
                  Sg      46:41.80   -1.95
SURR  94.1 179    PgC   6:46:35.93    0.47
                  Sg      46:47.10   -1.50
DEV  101.1 142    PgD   6:46:37.13    0.41
                  Sg      46:48.60   -2.23
BZS  115.4 199    Pn    6:46:39.10   -0.01
                  Sn      46:52.47   -2.62
CJR  115.6  84    PnC   6:46:39.41    0.27
                  Sn      46:52.40   -2.74
GZR  144.1 159    PnC   6:46:44.18    1.49
                  Sn      47:00.90   -0.56
BMR  159.7  42    PnD   6:46:45.22    0.59
                  Sn      47:05.40    0.47
TRPA 173.4  11    Pn    6:46:46.01   -0.33
PKSN 173.5 281    Sn    6:47:06.30   -1.68
ARCR 180.5  73    Pn    6:46:48.45    1.23
                  Sn      47:10.89    1.36
LOT  182.2 135    PnC   6:46:49.07    1.64
                  Sn      47:10.80    0.89
MDB  183.0 106    PnD   6:46:48.90    1.37
                  Sn      47:10.90    0.81
HERR 192.7 173    PnC   6:46:49.59    0.85
                  Sn      47:13.80    1.56
ABAH 199.3 341    Pn    6:46:48.74   -0.83
                  Sn      47:13.14   -0.58
PSZ  221.9 311    Pn    6:46:51.45   -0.94
BURA 262.4  65    PnD   6:46:58.90    1.47
VOIR 262.7 119    PnD   6:46:59.04    1.57
```



5.

```
 2019-01-07  time:  2:05:47.61 UTC  ML= 2.0
   lat: 46.109N  lon: 21.996E  h=  3.3 km
                 erh= 1.8km    erz= 2.3km
   nr= 31        gap= 69       rms=1.04
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
SIRR  31.3 304    PgC   2:05:54.20    0.96
                  Sg      05:57.70    0.07
SURR  40.7 166    PgC   2:05:56.17    1.26
                  Sg      06:01.10    0.49
BZS   62.2 208    Pg    2:05:59.37    0.64
                  Sg      06:06.99   -0.41
TIM   73.0 235    Sg    2:06:09.70   -1.14
DEV   74.7 110    PgD   2:06:01.27    0.31
                  Sg      06:10.50   -0.87
DRGR  93.7  36    Pg    2:06:04.50    0.15
                  Sg      06:15.16   -2.25
GZR  100.1 143    PgD   2:06:05.95    0.45
                  Sg      06:17.70   -1.76
BANR 104.9 220    Sg    2:06:20.20   -0.78
MARR 106.9  54    PgD   2:06:06.93    0.21
                  Sg      06:19.40   -2.22
BORR 110.2 352    PgD   2:06:07.66    0.36
                  Sg      06:21.00   -1.66
MESR 136.8  32    PnC   2:06:11.55    0.27
                  Sn      06:28.40   -1.34
HERR 140.4 166    PnC   2:06:12.55    0.82
                  Sn      06:29.80   -0.74
MDVR 149.2 189    PnC   2:06:14.27    1.44
                  Sn      06:31.00   -1.49
LOT  156.3 118    PnC   2:06:14.21    0.50
                  Sn      06:33.50   -0.57
BMR  208.1  33    Sn    2:06:45.80    0.24
ARCR 210.8  59    Pn    2:06:23.05    2.55
                  Sn      06:48.81    2.66
VOIR 249.0 107    PnD   2:06:26.43    1.16
                  Sn      06:54.90    0.26
```



6.

```
 2019-01-07  time:  9:29:16.09 UTC  ML= 1.8
   lat: 48.516N  lon: 20.858E  h=  0.0 km
                 erh= 5.0km    erz= 8.4km
   nr=  7        gap=115       rms=1.16
   Locality: Becskeháza
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  27.8 262    Pg    9:29:21.16    0.11
                  Sg      29:24.77   -0.15
ABAH  37.4 131    Pg    9:29:21.23   -1.53
                  Sg      29:27.75   -0.21
PSZ   97.7 227    Sg    9:29:48.77    1.62
STHS 104.0  16   ePg    9:29:36.10    1.43
VYHS 149.5 269    Sn    9:30:00.13   -1.65
```

7.

```
 2019-01-08  time:  1:57:03.32 UTC  ML= 1.2
   lat: 46.333N  lon: 17.590E  h=  6.6 km
                 erh= 2.6km    erz=23.3km
   nr= 12        gap=150       rms=0.58
   Locality: Gige
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOVH  47.9 125    PgD   1:57:12.21    0.26
                  Sg      57:18.82    0.14
PKS9  59.9  62    Sg    1:57:23.62    1.13
BEHE  64.5 284    Sg    1:57:23.32   -0.60
PKSV  71.2 134    Pg    1:57:16.53    0.44
PKB4  80.0  77    Pg    1:57:18.22    0.56
                  Sg      57:28.39   -0.45
PKSM  82.2  99    Pg    1:57:18.19    0.15
                  Sg      57:28.75   -0.77
MORH  82.3  99    Pg    1:57:18.25    0.18
                  Sg      57:28.63   -0.93
PKB5  92.7  72    Sg    1:57:31.92   -0.93
```

8.

```
 2019-01-08  time:  9:06:30.81 UTC  ML= 1.9
   lat: 48.589N  lon: 20.760E  h=  0.0 km
                 erh= 1.9km    erz= 2.1km
   nr= 12        gap=110       rms=0.61
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.4 240    Pg    9:06:35.46    0.47
                  Sg      06:38.12   -0.13
NIE   97.9 341    Pg    9:06:48.96    0.67
                  Sg      07:00.96   -0.97
PSZ   98.4 221    Sg    9:07:02.42    0.32
STHS  98.6  21   ePg    9:06:48.40   -0.02
KOLS 117.7  71    Sg    9:07:08.39    0.17
A336 136.2 253    Sn    9:07:12.61   -0.95
TRPA 141.4 111    Pn    9:06:55.64    0.17
                  Sn      07:12.76   -1.95
VYHS 142.4 266    Pn    9:06:56.14    0.54
                  Sn      07:14.57   -0.37
```

9.

```
 2019-01-08  time:  9:14:38.86 UTC  ML= 1.5
   lat: 47.110N  lon: 17.747E  h=  0.0 km
                 erh= 7.1km    erz= ***km
   nr=  9        gap=236       rms=0.76
   Locality: Szentgál
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  17.1 293    Pg    9:14:41.19   -0.72
                  Sg      14:44.75    0.46
PKST  27.4  53    Pg    9:14:44.00    0.25
                  Sg      14:48.67    1.10
EGYH  46.4 317    Pg    9:14:47.76    0.61
                  Sg      14:53.36   -0.25
CSKK  48.0  54    Sg    9:14:52.38   -1.75
PKSG  58.0  57    Pg    9:14:49.67    0.46
                  Sg      14:56.40   -0.88
```

10.

```
 2019-01-09  time: 10:33:28.80 UTC  ML= 0.8
   lat: 47.232N  lon: 18.240E  h=  0.0 km
                 erh= 1.4km    erz= 420km
   nr=  8        gap=116       rms=0.31
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  14.6   6    Pg   10:33:31.10   -0.31
                  Sg      33:33.80    0.35
PKST  15.8 281    Pg   10:33:31.59   -0.04
                  Sg      33:34.70    0.87
PKSG  21.1  33    Pg   10:33:32.25   -0.32
                  Sg      33:35.53    0.02
NADP  28.8  84    Sg   10:33:38.17    0.22
PKSM 117.5 165    Pg   10:33:49.73   -0.07
```

11.

```
 2019-01-09  time: 23:43:44.81 UTC  ML= 1.1
   lat: 47.845N  lon: 18.694E  h= 17.7 km
                 erh= 3.6km    erz= 2.6km
   nr= 11        gap=157       rms=0.72
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
SRO   28.7 263   ePg   23:43:51.70    0.87
A338  31.8 307    Pg   23:43:51.55    0.25
                  Sg      43:55.85   -0.52
A336  48.8  28    Pg   23:43:54.84    0.76
                  Sg      44:00.58   -0.74
PKSG  55.3 204    Pg   23:43:55.48    0.31
                  Sg      44:01.86   -1.39
NADP  65.5 185    S*   23:44:05.78   -0.48
VYHS  73.0   8    P*   23:43:58.81    0.81
                  S*      44:07.22   -1.07
EGYH 112.8 245    Pn   23:44:03.26   -0.39
```

12.

```
 2019-01-10  time:  9:02:56.25 UTC  ML= 0.9
   lat: 45.846N  lon: 18.453E  h=  0.0 km
                 erh= 1.4km    erz= 223km
   nr=  8        gap=267       rms=0.16
   Locality: Villány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSV  16.3 287    Pg    9:02:59.03   -0.13
                  Sg      03:01.36   -0.07
KOVH  38.4 314    Pg    9:03:03.55    0.44
                  Sg      03:08.39   -0.06
PKSM  43.2  20    Pg    9:03:03.92   -0.04
                  Sg      03:09.95   -0.02
MORH  43.7  20    Pg    9:03:03.97   -0.08
                  Sg      03:10.23    0.10
```

13.

```
 2019-01-10  time:  9:12:51.80 UTC  ML= 1.6
   lat: 48.615N  lon: 20.765E  h=  0.0 km
                 erh= 2.8km    erz= 2.3km
   nr= 11        gap=168       rms=0.81
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  25.3 235    Pg    9:12:57.04    0.72
                  Sg      13:00.01    0.17
ABAH  49.9 135    Pg    9:13:01.35    0.65
                  Sg      13:06.90   -0.74
PSZ  100.9 220    Pg    9:13:10.27    0.46
KOLS 116.3  72    Sg    9:13:28.77   -0.01
A336 137.5 252    Sn    9:13:33.39   -1.44
TRPA 142.0 112    Pn    9:13:16.57    0.03
                  Sn      13:33.99   -1.85
VYHS 143.1 265    Pn    9:13:17.47    0.80
                  Sn      13:34.74   -1.33
```

14.

```
 2019-01-11  time:  9:08:12.77 UTC  ML= 2.1
   lat: 48.547N  lon: 20.773E  h=  0.0 km
                 erh= 2.0km    erz= 3.0km
   nr= 10        gap=148       rms=0.44
   Locality: Komjáti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.4 252    Pg    9:08:17.24    0.48
                  Sg      08:20.07    0.19
ABAH  44.4 129    Pg    9:08:20.43   -0.26
                  Sg      08:26.85   -0.03
PSZ   95.6 223    Pg    9:08:30.24    0.39
                  Sg      08:42.24   -0.93
NIE  102.6 341    Pg    9:08:31.00   -0.09
A336 136.0 255    Pn    9:08:37.12    0.37
VYHS 143.2 268    Pn    9:08:37.57   -0.09
                  Sn      08:55.60   -1.47
```

15.

```
 2019-01-11  time: 10:17:42.14 UTC  ML= 1.0
   lat: 47.175N  lon: 18.314E  h=  0.0 km
                 erh= 0.6km    erz=80.0km
   nr=  6        gap=280       rms=0.05
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  21.3 349    Pg   10:17:45.95    0.00
                  Sg      17:48.98    0.06
PKST  23.2 294    Pg   10:17:46.27   -0.01
                  Sg      17:49.46   -0.05
PKSG  24.8  13    Pg   10:17:46.62    0.05
                  Sg      17:49.94   -0.09
```

16.

```
 2019-01-11  time: 22:22:21.96 UTC  ML= 1.9
   lat: 48.747N  lon: 18.819E  h= 16.3 km
                 erh= 5.6km    erz= 4.1km
   nr= 11        gap=120       rms=0.74
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
VYHS  28.1 177    Pg   22:22:28.31    0.54
                  Sg      22:32.18   -0.11
A336  58.7 167    Pg   22:22:32.29   -0.54
                  Sg      22:40.56   -0.75
LANS  65.4  47    Pg   22:22:35.23    1.24
                  Sg      22:42.88   -0.50
A338  88.4 203    P*   22:22:38.51    0.88
MORC 147.5 321    Pn   22:22:44.27   -1.03
                  Sn      23:03.18   -0.33
CSKK 159.4 195    Pn   22:22:46.14   -0.65
                  Sn      23:06.74    0.59
```

17.

```
 2019-01-11  time: 23:10:15.69 UTC  ML= 1.7
   lat: 45.820N  lon: 17.349E  h= 10.0 km
                 erh= 3.4km    erz= 2.9km
   nr= 12        gap=103       rms=0.81
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOVH  65.4  63    Pg   23:10:28.18    0.68
                  Sg      10:35.93   -0.78
PKSV  70.5  84    Pg   23:10:29.01    0.60
                  Sg      10:37.65   -0.69
PKSM 109.1  66    Pn   23:10:34.69   -0.36
                  Sn      10:49.17   -0.98
KOGS 109.9 309    Sn   23:10:48.88   -1.45
BLY  119.8 186    Pn   23:10:36.37   -0.01
                  Sn      10:52.29   -0.23
PKB4 122.6  52    Sn   23:10:53.49    0.34
CRES 147.1 270    Pn   23:10:41.61    1.83
                  Sn      10:58.78    0.21
```

18.

```
 2019-01-12  time: 21:05:16.57 UTC  ML= 1.4
   lat: 48.659N  lon: 19.415E  h= 16.3 km
                 erh= 5.2km    erz= 6.0km
   nr= 11        gap=117       rms=0.89
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
VYHS  46.5 247    Pg   21:05:25.70    0.33
                  Sg      05:30.82   -1.41
LANS  54.8   4    Pg   21:05:28.01    1.22
                  Sg      05:33.94   -0.82
A336  56.4 213    Pg   21:05:27.61    0.55
                  Sg      05:34.34   -0.91
KECS  81.4 104    P*   21:05:32.04    0.87
                  S*      05:41.43   -1.13
PSZ   89.7 157    P*   21:05:33.24    0.81
                  S*      05:44.09   -0.71
NIE  107.1  38    Sn   21:05:48.36   -0.77
```

19.

```
 2019-01-13  time: 20:27:17.35 UTC  ML= 1.0
   lat: 47.284N  lon: 18.261E  h= 10.0 km
                 erh= 4.7km    erz= 2.1km
   nr= 12        gap=193       rms=0.64
   Locality: Fehérvárcsurgó
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   8.8 360    Pg   20:27:19.51   -0.22
                  Sg      27:21.19   -0.40
PKSG  15.5  39    Pg   20:27:20.70    0.06
                  Sg      27:22.92   -0.29
PKB5  84.7 155    Pg   20:27:33.51    0.93
                  Sg      27:44.63    0.18
PKB4  91.4 163    Sg   20:27:46.55   -0.02
PKB3 119.2 143    Sn   20:27:54.24    0.19
MORH 122.3 166    Pn   20:27:39.69    1.34
                  Sn      27:53.77   -0.97
PKSM 122.7 166    Pn   20:27:38.12   -0.28
                  Sn      27:53.61   -1.21
```

20.

```
 2019-01-14  time:  9:19:15.17 UTC  ML= 1.5
   lat: 45.534N  lon: 17.917E  h= 16.2 km
                 erh= 2.5km    erz= 1.1km
   nr=  9        gap=271       rms=0.24
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  47.3  34    Pg    9:19:24.18    0.07
                  Sg      19:31.93    0.85
KOVH  63.3  13    Pg    9:19:26.61   -0.24
                  Sg      19:35.68   -0.27
PKSM  94.1  37    P*    9:19:31.79    0.08
                  S*      19:44.67    0.06
MORH  94.6  37    P*    9:19:31.80    0.01
                  S*      19:44.50   -0.25
KOGS 164.3 308    Sn    9:20:00.75    0.28
```

21.

```
 2019-01-14  time:  9:46:49.71 UTC  ML= 1.6
   lat: 47.541N  lon: 18.459E  h=  0.0 km
                 erh= 3.2km    erz= 4.3km
   nr=  9        gap=241       rms=0.47
   Locality: Tatabánya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  17.4 197    Pg    9:46:52.63   -0.19
                  Sg      46:55.40    0.16
CSKK  24.8 217    Pg    9:46:53.70   -0.45
                  Sg      46:57.55   -0.05
NADP  33.7 159    Pg    9:46:55.71   -0.02
                  Sg      47:00.73    0.31
BUD   43.0  99    Sg    9:47:03.16   -0.22
PKSM 148.4 175    Pn    9:47:16.17    0.92
                  Sn      47:31.82   -3.35
```

22.

2019-01-14 time: 10:29:24.62 UTC ML= 1.1
lat: 47.214N lon: 18.317E h= 0.0 km
erh= 6.4km erz= 722km
nr= 6 gap=178 rms=0.42
Locality: Moha
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	17.2	346	Sg	10:29:29.91	-0.18
PKSG	20.6	16	Pg	10:29:28.32	0.02
			Sg	29:31.19	0.02
MORH	113.7	167	Pg	10:29:45.37	0.44
PKSM	114.1	167	Pg	10:29:45.13	0.14
			Sg	29:59.60	-1.28

23.

2019-01-14 time: 10:42:04.35 UTC ML= 1.6
lat: 48.604N lon: 20.760E h= 0.0 km
erh= 3.1km erz= 3.0km
nr= 6 gap=229 rms=0.37
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	24.3	236	Pg	10:42:08.94	0.25
			Sg	42:12.06	-0.02
ABAH	49.3	134	Pg	10:42:13.27	0.11
			Sg	42:19.71	-0.31
VYHS	142.6	265	Pn	10:42:29.37	0.21
			Sn	42:47.16	-1.35

24.

2019-01-15 time: 1:08:02.41 UTC ML= 0.4
lat: 47.372N lon: 18.253E h= 2.2 km
erh= 0.4km erz= 0.2km
nr= 7 gap=205 rms=0.04
Locality: Mór
Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	1.1	150	PgU	1:08:02.87	0.02
			Sg	08:03.15	-0.04
PKSG	10.6	78	PgD	1:08:04.31	-0.04
			Sg	08:05.92	0.06
PKST	20.8	233	Pg	1:08:06.12	-0.02
			Sg	08:09.09	0.04
NADP	30.3	115	Sg	1:08:12.08	0.00

25.

2019-01-15 time: 6:54:49.09 UTC ML= 2.0
lat: 46.092N lon: 16.368E h= 11.2 km
erh= 1.3km erz= 1.1km
nr= 32 gap=126 rms=0.52
Locality: Croatia
Comments:

sta	dist	azm	phase	hr mn sec	res
PTJ	38.3	236	Pg	6:54:56.15	-0.07
			Sg	55:01.31	-0.47
KOGS	40.6	347	iPg	6:54:56.74	0.13
			iSg	55:02.17	-0.30
ZAG	41.2	225	Pg	6:54:57.17	0.45
			Sg	55:03.71	1.04
BEHE	52.4	37	Pg	6:54:58.93	0.27
			Sg	55:05.92	-0.21
GOLS	58.3	261	iPg	6:55:00.02	0.33
			iSg	55:07.52	-0.44
GCIS	62.6	246	iPg	6:55:00.71	0.26
			eSg	55:08.51	-0.81
DOBS	69.8	275	iPgD	6:55:01.67	-0.04
			iSg	55:10.55	-1.01
CESS	71.3	259	iPg	6:55:02.33	0.35
			iSg	55:11.36	-0.68
CRES	76.6	247	iPg	6:55:02.93	0.01
LEGS	82.9	259	iPg	6:55:03.95	-0.08
PERS	113.7	302	Pn	6:55:09.05	0.19
			Sn	55:24.32	0.03
SOKA	121.6	302	Pn	6:55:10.41	0.56
			Sn	55:25.60	-0.45
KOVH	133.9	90	Pn	6:55:10.95	-0.43
			Sn	55:26.89	-1.88
ARSA	144.1	333	Pn	6:55:14.51	1.86
			Sn	55:30.24	-0.79
OBKA	147.6	288	Pn	6:55:14.37	1.28
PKSV	147.7	99	Sn	6:55:31.53	-0.30
PKSM	176.1	86	Pn	6:55:16.17	-0.47
MORH	176.3	86	Pn	6:55:16.14	-0.53
RONA	178.8	358	Pn	6:55:18.04	1.07
			Sn	55:38.79	0.07

26.

2019-01-15 time: 6:56:10.57 UTC ML= 1.6
lat: 46.104N lon: 16.378E h= 10.0 km
erh= 1.6km erz= 1.4km
nr= 18 gap=133 rms=0.50
Locality: Croatia
Comments:

sta	dist	azm	phase	hr mn sec	res
KOGS	39.5	346	ePg	6:56:18.29	0.45
			iSg	56:23.57	0.06
PTJ	39.7	235	Pg	6:56:17.54	-0.33
			Sg	56:22.74	-0.83
ZAG	42.7	224	Pg	6:56:18.61	0.22
			Sg	56:24.22	-0.28
BEHE	50.9	37	Sg	6:56:26.12	-0.95
GOLS	59.2	260	iPg	6:56:21.94	0.65
			iSg	56:29.90	0.24
GCIS	63.8	246	iPg	6:56:22.23	0.13
			iSg	56:30.51	-0.59
PERS	113.6	301	Pn	6:56:30.91	0.42
			Sn	56:46.01	-0.02
SOKA	121.6	302	Pn	6:56:31.22	-0.26
			Sn	56:45.44	-2.35*
KOVH	133.2	91	Pn	6:56:33.68	0.75
			Sn	56:50.47	0.10
ARSA	143.2	333	Sn	6:56:51.72	-0.88

27.

2019-01-15 time: 8:15:18.57 UTC ML= 1.7
lat: 47.335N lon: 18.408E h= 0.0 km
erh= 2.7km erz= ***km
nr= 13 gap= 95 rms=0.96
Locality: Zámoly
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.4	348	PgU	8:15:19.74	0.02
			Sg	15:20.31	-0.30
CSKK	11.6	285	Pg	8:15:21.26	0.62
			Sg	15:22.87	0.62
NADP	18.1	119	Pg	8:15:23.02	1.22
			Sg	15:25.88	1.57
PKST	29.5	253	Pg	8:15:24.45	0.61
			Sg	15:27.24	-0.72
A336	109.2	24	Sg	8:15:51.45	-1.83
MORH	125.8	172	Pg	8:15:40.58	-0.45
			Sg	15:57.20	-1.35
PKSM	126.2	172	Pg	8:15:41.03	-0.07
			Sg	15:56.78	-1.90

28.

2019-01-15 time: 10:14:09.16 UTC ML= 0.6
lat: 47.209N lon: 18.258E h= 0.0 km
erh= 2.1km erz= 826km
nr= 10 gap=123 rms=0.64
Locality: Csór
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	17.1	1	Pg	10:14:12.40	0.19
			Sg	14:13.66	-0.93
PKST	17.8	288	Pg	10:14:12.67	0.33
			Sg	14:14.44	-0.38
PKSG	22.6	26	Pg	10:14:13.71	0.52
			Sg	14:16.89	0.55
NADP	27.7	79	Sg	10:14:18.70	0.73
BUD	65.4	62	Sg	10:14:28.59	-1.35
MORH	114.3	165	Sg	10:14:44.64	-0.86
PKSM	114.7	165	Sg	10:14:45.91	0.29

29.

2019-01-16 time: 10:26:21.61 UTC ML= 1.9
lat: 48.597N lon: 20.764E h= 0.0 km
erh= 1.6km erz= 2.1km
nr= 16 gap= 91 rms=0.66
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	24.1	238	Pg	10:26:26.35	0.43
			Sg	26:29.12	-0.16
ABAH	48.5	134	Pg	10:26:30.51	0.23
			Sg	26:37.26	0.22
NIE	97.2	340	Pg	10:26:39.13	0.17
			Sg	26:51.39	-1.11
PSZ	99.3	221	Pg	10:26:39.75	0.41
			Sg	26:52.87	-0.30
KOLS	117.1	71	Pg	10:26:43.21	0.69
			Sg	26:58.34	-0.49
A336	136.8	253	Pn	10:26:46.43	0.73
			Sn	27:03.54	-0.94
TRPA	141.4	112	Pn	10:26:46.43	0.16
			Sn	27:03.61	-1.90
VYHS	142.8	265	Pn	10:26:46.85	0.40
			Sn	27:04.44	-1.38

30.

2019-01-17 time: 9:04:06.32 UTC ML= 1.5
lat: 47.359N lon: 18.389E h= 0.0 km
erh= 2.4km erz= 5.5km
nr= 11 gap= 98 rms=0.86
Locality: Gánt
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	3.7	2	PgU	9:04:07.41	0.43
			Sg	04:07.96	0.47
CSKK	9.7	273	Pg	9:04:08.57	0.50
			Sg	04:09.52	0.10
NADP	20.6	123	Sg	9:04:14.13	1.26
PKST	29.0	248	Pg	9:04:12.15	0.64
			Sg	04:15.65	0.09
A336	107.4	25	Sg	9:04:39.07	-1.40
MORH	128.5	171	Sg	9:04:45.72	-1.46
PKSM	128.9	171	Sg	9:04:45.75	-1.56
VYHS	130.6	15	Sn	9:04:47.04	-0.78

31.

2019-01-17 time: 9:18:45.20 UTC ML= 1.5
lat: 47.320N lon: 18.392E h= 0.0 km
erh= 2.3km erz= 827km
nr= 10 gap=113 rms=0.66
Locality: Zámoly
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	8.0	359	PgU	9:18:46.07	-0.55
			Sg	18:46.67	-1.06
CSKK	11.1	296	Pg	9:18:47.51	0.34
			Sg	18:49.13	0.42
NADP	18.4	112	Sg	9:18:52.46	1.41
PKST	27.9	256	Pg	9:18:50.55	0.37
			Sg	18:53.56	-0.51
MORH	124.3	171	Sg	9:19:24.12	-0.57
PKSM	124.7	171	Pg	9:19:08.02	0.56
			Sg	19:24.22	-0.60

32.

2019-01-17 time: 10:18:22.18 UTC ML= 1.2
lat: 47.209N lon: 18.287E h= 0.0 km
erh= 1.6km erz= 4.5km
nr= 11 gap= 99 rms=0.50
Locality: Iszkaszentgyörgy
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	17.3	353	Pg	10:18:24.93	-0.33
			Sg	18:27.39	-0.28
PKST	19.9	286	Pg	10:18:25.28	-0.45
			Sg	18:28.36	-0.15
PKSG	21.8	21	Sg	10:18:29.16	0.05
NADP	25.6	78	Sg	10:18:30.89	0.57
MPLH	56.8	266	Pg	10:18:32.62	0.30
			Sg	18:40.89	0.66
PKSM	114.1	166	Sg	10:18:57.82	-0.62
VYHS	148.7	16	Pn	10:18:48.41	0.66
			Sn	19:05.13	-2.57

33.

2019-01-18 time: 4:40:50.75 UTC ML= 2.1
lat: 46.193N lon: 16.532E h= 8.6 km
erh= 1.4km erz= 1.3km
nr= 26 gap=122 rms=0.53
Locality: Croatia
Comments:

sta	dist	azm	phase	hr mn sec	res
KOGS	35.7	323	Pg	4:40:57.90	0.59
			Sg	41:02.67	0.24
BEHE	36.1	31	Pg	4:40:57.33	-0.04
			Sg	41:02.06	-0.48
PTJ	55.1	234	Pg	4:41:00.04	-0.66
			Sg	41:08.03	-0.44
ZAG	58.1	226	Pg	4:41:01.97	0.74
			Sg	41:08.94	-0.47
GOLS	73.0	254	iPg	4:41:03.33	-0.55
DOBS	82.2	267	iPg	4:41:05.62	0.11
GROS	84.8	291	Pg	4:41:05.87	-0.09
			Sg	41:16.77	-1.06
CRES	92.7	244	Pg	4:41:07.56	0.18
			Sg	41:20.48	0.13
LEGS	97.8	254	iPg	4:41:08.23	-0.05
			iSg	41:21.95	0.00
PERS	119.5	294	Pn	4:41:12.25	0.67
			Sn	41:27.40	-0.43
PDKS	119.5	263	iPn	4:41:12.37	0.79
SOKA	127.3	295	Pn	4:41:13.42	0.87
			Sn	41:27.60	-1.96
MPLH	133.2	35	Pn	4:41:13.29	-0.01

```
PKSV 137.4 104    Sn    4:41:30.05   -1.75
ARSA 140.6 327    Sn    4:41:32.45   -0.08
PKSM 162.8  89    Sn    4:41:37.24   -0.21
MORH 163.0  89    Sn    4:41:37.69    0.19
```

34.

```
 2019-01-18  time:  5:47:22.52 UTC  ML= 2.1
   lat: 46.175N  lon: 16.562E  h= 10.0 km
                 erh= 1.9km    erz= 1.7km
   nr= 20        gap=133       rms=0.68
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  36.7  27    Pg    5:47:29.64    0.33
                  Sg      47:34.23   -0.37
KOGS  38.7 322    Pg    5:47:30.06    0.40
                  Sg      47:35.05   -0.18
PTJ   55.9 237    Pg    5:47:33.01    0.35
                  Sg      47:40.26   -0.31
GROS  87.7 291    Pg    5:47:37.83   -0.44
                  Sg      47:48.79   -1.77
CRES  94.0 246    Pg    5:47:39.98    0.57
                  Sg      47:52.76    0.18
KOVH 119.2  95    Pn    5:47:42.71   -0.43
                  Sn      47:56.88   -2.34
PERS 122.4 295    Pn    5:47:43.31   -0.23
                  Sn      47:59.58   -0.35
MPLH 133.5  34    Pn    5:47:45.11    0.19
PKSV 134.6 104    Sn    5:48:01.97   -0.68
ARSA 143.6 326    Pn    5:47:47.79    1.62
                  Sn      48:04.50   -0.12
PKSM 160.5  89    Sn    5:48:09.74    1.35
MORH 160.7  88    Sn    5:48:08.74    0.30
```

35.

```
 2019-01-19  time:  6:35:27.38 UTC  ML= 1.3
   lat: 47.353N  lon: 18.267E  h=  6.5 km
                 erh= 1.9km    erz= 1.3km
   nr=  9        gap=100       rms=0.23
   Locality: Csókakő
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   1.3 339    Pg    6:35:28.36   -0.21
                  Sg      35:28.60   -0.89
PKSG  10.3  65    Pg    6:35:29.73    0.17
                  Sg      35:31.38    0.11
PKST  20.4 239    Pg    6:35:31.38    0.17
                  Sg      35:34.34    0.15
NADP  28.6 112    Sg    6:35:36.71    0.01
MORH 129.6 167    Sn    6:36:07.06   -0.12
PKSM 130.0 167    Sn    6:36:07.21   -0.06
```

36.

```
 2019-01-21  time: 10:57:54.94 UTC  ML= 1.9
   lat: 48.605N  lon: 20.761E  h=  0.0 km
                 erh= 2.2km    erz= 2.2km
   nr= 17        gap= 86       rms=0.78
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.5 236    Pg   10:57:59.22   -0.21
                  Sg      58:02.31   -0.62
ABAH  49.3 134    Pg   10:58:04.30    0.50
                  Sg      58:10.61   -0.11
STHS  96.9  21    Pg   10:58:12.50    0.23
                  Sg      58:24.02   -1.77
PSZ   99.9 220    Pg   10:58:13.18    0.38
                  Sg      58:25.67   -1.07
LANS 112.6 303    Pg   10:58:14.97   -0.10
KOLS 117.0  72    Pn   10:58:17.37    1.55
                  Sn      58:30.85   -1.26
A336 136.9 252    Pn   10:58:18.98    0.68
                  Sn      58:36.34   -0.18
TRPA 141.9 112    Pn   10:58:19.25    0.32
                  Sn      58:36.27   -1.37
VYHS 142.7 265    Pn   10:58:19.87    0.84
                  Sn      58:37.95    0.13
```

37.

```
 2019-01-21  time: 11:06:36.42 UTC  ML= 1.4
   lat: 47.102N  lon: 17.927E  h=  0.0 km
                 erh= 2.2km    erz= 932km
   nr= 18        gap=101       rms=0.82
   Locality: Kádárta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  19.2  25    Pg   11:06:39.88    0.02
TIH   22.6 187    Pg   11:06:40.88    0.42
                  Sg      06:44.44    0.83
MPLH  30.3 284    Pg   11:06:42.61    0.77
                  Sg      06:45.30   -0.77
CSKK  38.5  41    Pg   11:06:43.37    0.08
                  Sg      06:48.49   -0.16
PKSG  47.6  47    Pg   11:06:44.92   -0.01
PKB1  74.8 118    Pg   11:06:48.79   -0.98
                  Sg      07:01.52    1.33
PKB5  83.6 132    Pg   11:06:51.45    0.10
                  Sg      07:02.82   -0.17
PKB4  84.9 142    Pg   11:06:52.88    1.30
                  Sg      07:04.33    0.92
MORH 112.8 151    Pg   11:06:56.00   -0.57
                  Sg      07:10.53   -1.75
PKSM 113.1 151    Pg   11:06:55.79   -0.83
                  Sg      07:10.00   -2.37
```

38.

```
 2019-01-21  time: 15:10:50.36 UTC  ML= 1.2
   lat: 46.965N  lon: 18.552E  h=  8.3 km
                 erh= 2.2km    erz= 2.5km
   nr= 16        gap=152       rms=0.56
   Locality: Sárszentágota
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKB1  27.2 138    Pg   15:10:55.30   -0.13
                  Sg      10:59.30   -0.09
PKB5  43.4 161    Pg   15:10:59.45    1.20
                  Sg      11:03.94   -0.47
PKS9  46.9 206    Sg   15:11:05.79    0.31
PKSG  49.0 346    Pg   15:10:58.96   -0.28
                  Sg      11:05.46   -0.71
PKST  51.1 310    Pg   15:10:59.94    0.33
                  Sg      11:06.82    0.00
PKB4  52.2 176    Sg   15:11:06.73   -0.43
MORH  83.5 175    Pg   15:11:05.62    0.27
                  Sg      11:16.51   -0.53
PKSM  84.0 175    Pg   15:11:05.59    0.17
                  Sg      11:16.71   -0.46
PKSV 121.8 191    Pn   15:11:12.60    1.09
                  Sn      11:26.96   -1.06
```

39.

```
 2019-01-22  time:  8:10:37.28 UTC  ML= 1.4
   lat: 45.602N  lon: 17.782E  h= 10.0 km
                 erh= 9.1km    erz= 6.4km
   nr=  7        gap=198       rms=0.48
   Locality: Croatia
   Comments:
```

sta	dist	azm	phase	hr mn sec	res
PKSV	48.5	49	Pg	8:10:46.97	0.85
			Sg	10:52.56	-0.45
PKSM	95.0	45	Pg	8:10:54.54	0.19
			Sg	11:07.23	-0.43
MORH	95.5	44	Pg	8:10:54.74	0.31
			Sg	11:07.38	-0.43
BLY	105.9	206	P*	8:10:55.78	-0.42

40.

2019-01-22 time: 8:55:52.75 UTC ML= 2.0
lat: 47.320N lon: 18.427E h= 0.0 km
erh= 3.2km erz= 846km
nr= 7 gap=191 rms=0.57
Locality: Zámoly
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	8.5	341	Pg	8:55:54.42	0.16
			Sg	55:54.95	-0.49
CSKK	13.5	291	Pg	8:55:55.74	0.59
			Sg	55:57.36	0.33
PKST	30.5	257	Sg	8:56:02.78	0.35
MPLH	69.2	256	Sg	8:56:13.43	-1.32
PKSM	124.3	172	Sg	8:56:31.85	-0.39

41.

2019-01-22 time: 10:38:38.96 UTC ML= 1.3
lat: 47.230N lon: 18.274E h= 0.0 km
erh= 1.9km erz= 3.7km
nr= 12 gap=127 rms=0.56
Locality: Iszkaszentgyörgy
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	14.9	356	Pg	10:38:41.71	0.09
			Sg	38:43.67	-0.02
PKST	18.4	280	Pg	10:38:41.95	-0.30
			Sg	38:44.92	0.10
PKSG	20.1	26	Pg	10:38:42.48	-0.07
			Sg	38:45.82	0.48
MPLH	56.0	263	Pg	10:38:49.23	0.26
PKB5	78.8	154	Pg	10:38:53.80	0.76
MORH	116.2	166	Pg	10:38:59.21	-0.50
			Sg	39:14.40	-1.50
VYHS	146.7	17	Pn	10:39:04.89	0.60
			Sn	39:22.61	-1.44

42.

2019-01-22 time: 19:34:06.14 UTC ML= 1.5
lat: 46.977N lon: 17.524E h= 13.8 km
erh= 2.0km erz= 1.4km
nr= 13 gap=228 rms=0.36
Locality: Taliándörögd
Comments:

sta	dist	azm	phase	hr mn sec	res
MPLH	21.5	3	Pg	19:34:10.36	-0.34
			Sg	34:13.53	-0.73
TIH	29.3	107	Pg	19:34:11.69	-0.24
			Sg	34:16.20	-0.24
PKST	49.8	51	Pg	19:34:15.71	0.35
			Sg	34:22.88	0.32
CSKK	70.4	52	Pg	19:34:19.24	0.29
			Sg	34:28.98	0.04
PKB4	98.3	123	S*	19:34:37.11	-0.01
PKB1	99.0	102	S*	19:34:36.80	-0.50
MORH	120.5	135	Pn	19:34:26.89	0.46
			Sn	34:41.93	-0.33
PKSM	120.7	135	Pn	19:34:26.87	0.42

43.

2019-01-23 time: 13:37:58.46 UTC ML= 1.3
lat: 46.135N lon: 18.071E h= 2.3 km
erh= 2.0km erz= 4.8km
nr= 10 gap=241 rms=0.29
Locality: Abaliget
Comments:

sta	dist	azm	phase	hr mn sec	res
KOVH	5.7	157	Pg	13:37:59.45	-0.11
			Sg	38:00.61	0.20
PKSV	30.8	153	Pg	13:38:03.79	-0.19
			Sg	38:08.26	-0.03
PKSM	44.9	79	Pg	13:38:06.61	0.12
			Sg	38:12.48	-0.26
MORH	45.2	79	Pg	13:38:06.76	0.22
			Sg	38:12.71	-0.13
PKB5	72.3	45	Pg	13:38:12.05	0.67
PKB1	91.0	38	Pg	13:38:14.29	-0.42

44.

2019-01-23 time: 13:40:30.51 UTC ML= 1.2
lat: 46.102N lon: 18.105E h= 5.1 km
erh= 2.1km erz= 2.1km
nr= 12 gap=200 rms=0.35
Locality: Kővágótöttős
Comments:

sta	dist	azm	phase	hr mn sec	res
KOVH	1.6	195	Pg	13:40:31.05	-0.42
			Sg	40:32.46	0.24
PKSV	26.4	154	Pg	13:40:35.00	-0.31
			Sg	40:39.64	0.59
PKSM	43.2	74	Pg	13:40:37.91	-0.36
			Sg	40:44.23	-0.10
MORH	43.5	73	Pg	13:40:38.58	0.25
			Sg	40:44.21	-0.22
PKB4	58.3	41	Pg	13:40:40.94	-0.01
PKB5	73.2	42	Pg	13:40:43.98	0.37
			Sg	40:54.48	0.65
PKB1	92.4	35	Sg	13:40:59.62	-0.30

45.

2019-01-24 time: 8:11:13.14 UTC ML= 1.5
lat: 47.360N lon: 18.390E h= 0.0 km
erh= 2.2km erz= 903km
nr= 11 gap=109 rms=0.74
Locality: Gánt
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	3.6	1	PgU	8:11:14.05	0.28
			Sg	11:14.60	0.33
CSKK	9.8	272	Pg	8:11:15.28	0.40
			Sg	11:16.55	0.31
NADP	20.6	123	Sg	8:11:20.67	0.97
PKST	29.1	247	Pg	8:11:18.73	0.40
			Sg	11:22.23	-0.16
MORH	128.6	171	Pg	8:11:36.19	0.08
			Sg	11:52.74	-1.28
PKSM	129.0	171	Sg	8:11:52.67	-1.48
VYHS	130.5	15	Sg	8:11:52.81	-1.79

46.

2019-01-24 time: 9:31:26.74 UTC ML= 0.7
lat: 46.165N lon: 18.304E h= 0.0 km
erh= 0.8km erz= 165km
nr= 8 gap=196 rms=0.12
Locality: Zobákpuszta
Comments: probably explosion

```
sta   dist azm  phase  hr mn  sec     res
KOVH  18.0 241    Pg    9:31:30.05    0.11
                  Sg      31:32.17   -0.27
PKSM  26.6  79    Pg    9:31:31.42   -0.06
                  Sg      31:35.23    0.05
MORH  26.9  78    Pg    9:31:31.56    0.03
                  Sg      31:35.33    0.06
PKSV  31.0 187    Pg    9:31:32.14   -0.14
                  Sg      31:36.80    0.20
```

47.

```
 2019-01-24  time:  9:58:48.34 UTC  ML= 1.8
   lat: 48.615N  lon: 20.775E  h=  0.0 km
                erh= 1.7km    erz= 1.9km
   nr=  8       gap=194       rms=0.70
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  25.9 236    Pg    9:58:53.49    0.53
                  Sg      58:56.68    0.11
ABAH  49.4 136    Pg    9:58:57.40    0.25
                  Sg      59:03.23   -0.80
PSZ  101.3 220    Sg    9:59:21.17    0.62
LANS 112.9 302    Pg    9:59:08.96    0.46
A336 138.1 252    Sn    9:59:29.92   -1.60
VYHS 143.8 265    Sn    9:59:31.67   -1.10
```

48.

```
 2019-01-24  time: 10:12:31.58 UTC  ML= 0.9
   lat: 47.222N  lon: 18.283E  h=  0.0 km
                erh= 1.8km    erz= 252km
   nr=  6       gap=259       rms=0.15
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  15.8 354    Pg   10:12:34.40   -0.01
                  Sg      12:36.46   -0.15
PKST  19.3 282    Pg   10:12:35.20    0.18
                  Sg      12:37.59   -0.12
PKSG  20.6  23    Pg   10:12:35.12   -0.14
                  Sg      12:38.38    0.25
```

49.

```
 2019-01-24  time: 10:46:15.60 UTC  ML= 1.2
   lat: 47.291N  lon: 18.318E  h=  0.0 km
                erh= 1.0km    erz= 344km
   nr=  9       gap= 93       rms=0.26
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   9.2 332    Pg   10:46:17.19   -0.05
                  Sg      46:18.44   -0.07
PKSG  12.5  26    Pg   10:46:17.91    0.07
                  Sg      46:19.32   -0.26
PKST  21.7 261    Pg   10:46:19.51    0.03
                  Sg      46:22.65    0.15
NADP  23.0  99    Sg   10:46:23.18    0.28
MORH 122.0 168    Pg   10:46:37.40    0.01
                  Sg      46:51.86   -2.53
```

50.

```
 2019-01-24  time: 11:02:54.74 UTC  ML= 2.1
   lat: 48.204N  lon: 21.233E  h=  0.0 km
                erh= 2.9km    erz= 864km
   nr=  8       gap=158       rms=0.61
   Locality: Rátka
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  10.2   3    Pg   11:02:57.08    0.51
                  Sg      02:58.33    0.34
KECS  63.5 299    Sg   11:03:13.63   -1.28
TRPA  97.5  95    Pg   11:03:12.67    0.51
                  Sg      03:24.89   -0.85
PSZ  104.7 252    Sg   11:03:28.09    0.08
KOLS 111.7  43    Pg   11:03:15.00    0.32
                  Sg      03:29.61   -0.63
```

51.

```
 2019-01-27  time: 17:18:42.55 UTC  ML= 0.7
   lat: 46.328N  lon: 18.614E  h=  9.1 km
                erh= 0.4km    erz= 1.1km
   nr= 11       gap= 93       rms=0.13
   Locality: Kakasd
   Comments:

sta   dist azm  phase  hr mn  sec     res
MORH  12.7 169    Pg   17:18:45.51    0.16
                  Sg      18:47.51   -0.02
PKSM  13.1 171    Pg   17:18:45.56    0.15
                  Sg      18:47.54   -0.09
PKB4  18.7 358    Sg   17:18:49.08   -0.08
PKB5  31.1  18    Pg   17:18:48.22   -0.12
                  Sg      18:52.69   -0.16
PKS9  38.6 318    Sg   17:18:55.28    0.13
PKB3  46.0  77    Sg   17:18:57.56    0.12
KOVH  47.8 236    Pg   17:18:51.26    0.02
                  Sg      18:57.76   -0.26
```

52.

```
 2019-01-28  time:  9:40:36.85 UTC  ML= 1.1
   lat: 47.110N  lon: 18.014E  h=  0.0 km
                erh= 1.7km    erz= 651km
   nr= 13       gap=112       rms=0.55
   Locality: Királyszentistván
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  16.6   5    Pg    9:40:39.23   -0.59
                  Sg      40:42.54    0.40
TIH   25.1 202    Pg    9:40:41.69    0.36
                  Sg      40:45.60    0.78
CSKK  33.8  34    Pg    9:40:42.83   -0.06
                  Sg      40:48.07    0.48
MPLH  36.6 281    Pg    9:40:43.53    0.14
                  Sg      40:47.85   -0.64
PKSG  42.4  42    Pg    9:40:44.63    0.21
MORH 110.5 154    Pg    9:40:56.84    0.26
                  Sg      41:10.80   -1.17
PKSM 110.8 154    Pg    9:40:56.81    0.18
                  Sg      41:10.45   -1.61
```

53.

```
 2019-01-28  time:  9:59:18.78 UTC  ML= 2.0
   lat: 47.372N  lon: 18.424E  h=  0.0 km
                erh= 1.9km    erz= ***km
   nr= 20       gap= 70       rms=0.95
   Locality: Gánt
   Comments: probably explosion
```

sta	dist	azm	phase	hr mn sec	res
PKSG	3.4	311	Pg	9:59:19.87	0.49
			Sg	59:20.39	0.54
CSKK	12.4	265	Pg	9:59:23.09	2.09
NADP	19.4	131	Pg	9:59:23.26	1.02
			Sg	59:25.79	0.85
PKST	32.1	247	Pg	9:59:24.52	0.01
			Sg	59:28.66	-0.31
TIH	66.2	218	Sg	9:59:40.09	0.27
MPLH	70.6	251	Sg	9:59:39.67	-1.56
PKB1	71.1	157	Pg	9:59:32.05	0.58
PKB5	89.6	165	Sg	9:59:47.57	0.32
A336	105.0	24	Pg	9:59:37.87	0.35
			Sg	59:51.82	-0.32
A337	108.0	334	Sg	9:59:52.38	-0.73
PSZ	126.0	61	Sg	9:59:57.22	-1.62
VYHS	128.5	14	Sg	9:59:58.75	-0.86
MORH	129.6	173	Pg	9:59:41.78	-0.15
			Sg	59:57.92	-2.06
PKSM	130.0	173	Pg	9:59:41.78	-0.22
			Sg	59:58.00	-2.12

54.

2019-01-29 time: 7:47:31.66 UTC ML= 2.1
lat: 47.836N lon: 18.615E h= 6.1 km
erh= 1.3km erz= 1.4km
nr= 33 gap= 69 rms=0.61
Locality: Slovakia
Comments:

sta	dist	azm	phase	hr mn sec	res
SRO	22.7	264	Pg	7:47:36.19	0.33
			Sg	47:39.82	0.68
A338	27.9	315	Sg	7:47:42.11	1.37
PENC	50.2	96	Pg	7:47:40.66	-0.03
PKSG	52.2	199	Pg	7:47:41.58	0.53
			Sg	47:47.76	-0.61
A336	52.6	33	Pg	7:47:41.33	0.22
			Sg	47:47.08	-1.41
CSKK	59.0	207	Pg	7:47:42.33	0.08
			Sg	47:50.26	-0.25
NADP	64.3	180	Pg	7:47:44.03	0.83
			Sg	47:51.68	-0.52
VYHS	74.9	13	Pg	7:47:45.15	0.06
			Sg	47:53.71	-1.85
PKST	77.7	214	Pg	7:47:45.17	-0.40
			Sg	47:56.10	-0.32
PSZ	96.1	85	Pg	7:47:48.87	0.01
EGYH	107.1	244	Pg	7:47:50.68	-0.14
			Sg	48:05.03	-0.73
MPLH	109.8	228	Pg	7:47:51.12	-0.17
			Sg	48:05.20	-1.41
TIH	117.5	208	Pn	7:47:52.63	0.06
PKB1	117.7	173	Pn	7:47:52.94	0.34
			Sn	48:07.47	-1.46
PKB5	138.3	176	Sn	7:48:13.47	-0.03
PKB4	149.0	180	Sn	7:48:16.28	0.42
KECS	156.7	63	Pn	7:47:57.70	0.25
			Sn	48:17.25	-0.32
LANS	159.1	23	Pn	7:47:58.69	0.93
PKB3	163.1	164	Sn	7:48:19.96	0.96
MORH	180.2	179	Pn	7:48:00.65	0.27
PKSM	180.6	179	Pn	7:48:00.71	0.27
MORC	229.7	340	Sn	7:48:32.85	-0.93

55.

2019-01-29 time: 9:11:15.46 UTC ML= 1.4
lat: 48.616N lon: 20.789E h= 0.0 km
erh= 2.9km erz= 3.6km
nr= 9 gap=195 rms=0.54
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	26.9	237	Pg	9:11:20.69	0.43
			Sg	11:23.90	-0.10
ABAH	48.7	137	Sg	9:11:30.33	-0.63
PSZ	102.2	221	Pg	9:11:34.29	0.59
			Sg	11:47.40	-0.53
LANS	113.7	302	Pg	9:11:35.80	0.04
			Sg	11:50.81	-0.79
VYHS	144.8	265	Pn	9:11:41.32	0.77
			Sn	11:59.50	-0.63

56.

2019-01-29 time: 10:35:31.21 UTC ML= 1.6
lat: 47.771N lon: 19.051E h= 17.1 km
erh= 2.7km erz= 3.2km
nr= 8 gap=127 rms=0.57
Locality: Dunabogdány
Comments:

sta	dist	azm	phase	hr mn sec	res
A270	8.6	344	Pg	10:35:35.44	0.81
PENC	17.4	83	Pg	10:35:36.32	0.75
			Sg	35:38.15	-0.83
A336	51.5	356	Sg	10:35:47.98	-0.49
A338	58.8	297	Sg	10:35:50.40	-0.29
PSZ	65.2	75	Sg	10:35:52.44	-0.21
NADP	65.8	210	Sg	10:35:52.39	-0.42
VYHS	81.9	349	S*	10:35:57.19	-0.02

57.

2019-01-29 time: 19:59:29.55 UTC ML= 0.4
lat: 47.383N lon: 18.174E h= 0.1 km
erh= 5.7km erz= 179km
nr= 6 gap=229 rms=0.09
Locality: Nagyveleg
Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	6.9	109	Pg	19:59:30.79	0.01
			Sg	59:31.76	0.02
PKSG	16.4	87	Pg	19:59:32.61	0.13
			Sg	59:34.61	-0.15
PKST	17.4	217	PgD	19:59:32.56	-0.10
			Sg	59:35.14	0.06

58.

2019-01-30 time: 10:27:17.62 UTC ML= 1.0
lat: 47.208N lon: 18.308E h= 0.0 km
erh= 1.0km erz= 2.5km
nr= 9 gap=150 rms=0.23
Locality: Székesfehérvár
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	17.6	348	Pg	10:27:20.76	-0.01
PKSG	21.4	17	Pg	10:27:21.66	0.22
			Sg	27:23.98	-0.44
PKST	21.5	285	Pg	10:27:21.42	-0.03
			Sg	27:24.37	-0.07
MORH	113.2	167	Pg	10:27:37.97	0.13
PKSM	113.6	167	Pg	10:27:37.97	0.06
			Sg	27:53.17	-0.57
VYHS	148.4	15	Pn	10:27:43.44	0.28

59.

2019-01-30 time: 12:45:39.92 UTC ML= 2.3
lat: 46.149N lon: 16.381E h= 10.0 km
erh= 3.3km erz= 2.6km
nr= 10 gap=184 rms=0.61
Locality: Croatia
Comments:

sta	dist	azm	phase	hr mn sec	res
KOGS	34.8	343	Sg	12:45:51.06	-0.36
PTJ	42.9	230	Pg	12:45:47.25	-0.54
			Sg	45:53.44	-0.48
BEHE	46.9	40	Sg	12:45:54.83	-0.32
GROS	76.1	297	Pg	12:45:54.48	0.85
CRES	80.1	243	Pg	12:45:55.04	0.70
			Sg	46:06.14	0.55
PERS	111.3	299	Pn	12:45:58.86	-0.70
			Sn	46:14.39	-0.48
PKST	176.7	46	Pn	12:46:08.39	0.68

60.

2019-01-30 time: 13:17:33.59 UTC ML= 1.1
lat: 46.126N lon: 18.028E h= 0.0 km
erh= 1.6km erz= 302km
nr= 11 gap=252 rms=0.25
Locality: Hetvehely
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	7.0	127	Pg	13:17:35.01	0.17
			Sg	17:35.99	0.18
PKSV	31.6	147	Pg	13:17:39.09	-0.15
			Sg	17:43.52	-0.13
PKSM	48.3	79	Pg	13:17:42.38	0.16
			Sg	17:48.23	-0.71
MORH	48.6	78	Pg	13:17:42.29	0.02
			Sg	17:48.77	-0.27
PKB4	60.5	47	Sg	13:17:52.93	0.12
PKB1	93.8	39	Pg	13:17:50.15	-0.19
			Sg	18:03.92	0.52

61.

2019-01-31 time: 8:29:48.28 UTC ML= 1.3
lat: 47.311N lon: 17.644E h= 0.0 km
erh= 1.5km erz= 388km
nr= 8 gap=144 rms=0.28
Locality: Homokbödöge
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
MPLH	17.6	207	Pg	8:29:51.18	-0.24
			Sg	29:53.97	0.10
EGYH	26.4	297	Pg	8:29:53.12	0.13
PKST	30.1	101	Pg	8:29:53.26	-0.40
			Sg	29:58.31	0.46
CSKK	47.0	83	Sg	8:30:02.93	-0.28
PKSG	57.1	81	Pg	8:29:58.79	0.30
			Sg	30:06.47	0.03

62.

2019-01-31 time: 8:39:52.22 UTC ML= 1.4
lat: 47.343N lon: 18.414E h= 0.0 km
erh= 2.2km erz= 4.5km
nr= 11 gap=158 rms=0.65
Locality: Zámoly
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.7	342	Pg	8:39:53.42	0.19
			Sg	39:54.00	-0.02
CSKK	11.8	281	Pg	8:39:54.60	0.27
			Sg	39:56.23	0.26
PKST	30.2	252	Pg	8:39:57.87	0.26
			Sg	40:01.15	-0.67
MORH	126.6	172	Pg	8:40:15.74	0.91
			Sg	40:31.68	-0.78
PKSM	127.0	172	Pg	8:40:15.44	0.54
			Sg	40:31.35	-1.24
VYHS	131.8	14	Sn	8:40:32.51	-1.48

63.

2019-01-31 time: 9:25:44.49 UTC ML= 1.4
lat: 46.582N lon: 22.587E h= 1.3 km
erh= 3.8km erz= 3.3km
nr= 8 gap=148 rms=0.44
Locality: Romania
Comments:

sta	dist	azm	phase	hr mn sec	res
DRGR	25.2	22	Pg	9:25:48.39	-0.61
			Sg	25:53.21	0.69
BZS	130.9	215	Pn	9:26:07.87	0.19
			Sn	26:26.05	0.27
AMBH	145.3	260	Sn	9:26:28.81	-0.16
ARCR	146.0	67	Sn	9:26:29.11	-0.01
KOLS	262.5	355	Pn	9:26:23.60	-0.50
			Sn	26:57.03	2.04*

64.

2019-01-31 time: 10:04:30.86 UTC ML= 1.6
lat: 48.613N lon: 20.781E h= 0.0 km
erh= 2.0km erz= 2.0km
nr= 12 gap=130 rms=0.51
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	26.2	236	Pg	10:04:35.76	0.23
			Sg	04:38.92	-0.26
ABAH	49.0	136	Pg	10:04:40.28	0.68
			Sg	04:45.90	-0.53
PSZ	101.5	220	Pg	10:04:49.17	0.18
LANS	113.3	302	Pg	10:04:51.33	0.24
KOLS	115.3	72	Sg	10:05:06.84	-0.67
A336	138.5	252	Sn	10:05:13.47	-0.65
TRPA	140.9	112	Pn	10:04:55.89	0.43
			Sn	05:12.87	-1.79
VYHS	144.2	265	Pn	10:04:56.20	0.33
			Sn	05:14.72	-0.66

65.

2019-01-31 time: 10:28:20.28 UTC ML= 1.0
lat: 47.207N lon: 18.285E h= 0.0 km
erh= 0.8km erz= 250km
nr= 9 gap=145 rms=0.19
Locality: Iszkaszentgyörgy
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	17.5	354	Pg	10:28:23.30	-0.10
			Sg	28:25.56	-0.28
PKST	19.9	287	Pg	10:28:23.86	0.04
			Sg	28:26.47	-0.12
PKSG	22.1	21	Pg	10:28:24.26	0.04
			Sg	28:27.50	0.20
MPLH	56.6	266	Pg	10:28:30.86	0.47
MORH	113.5	166	Pg	10:28:40.48	-0.07
PKSM	113.9	166	Pg	10:28:40.50	-0.11

66.

```
 2019-01-31  time: 11:48:45.25 UTC  ML= 1.2
   lat: 47.366N  lon: 18.396E  h=  5.1 km
                 erh= 3.5km    erz= 4.3km
   nr=  6        gap=134       rms=0.18
   Locality: Gánt
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSG   2.9 352    Pg   11:48:46.17   -0.13
                  Sg      48:46.98   -0.14
CSKK  10.3 268    Pg   11:48:47.41    0.11
                  Sg      48:49.21    0.31
NADP  20.6 126    Pg   11:48:49.14    0.10
PKST  29.8 247    Sg   11:48:54.60   -0.27
```

67.

```
 2019-02-01  time:  9:44:49.70 UTC  ML= 0.6
   lat: 46.167N  lon: 18.297E  h=  0.0 km
                 erh= 0.9km    erz= 181km
   nr=  8        gap=199       rms=0.14
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.6 240    Pg    9:44:52.85    0.01
                  Sg      44:54.98   -0.31
PKSM  27.0  79    Pg    9:44:54.63    0.10
                  Sg      44:58.60    0.30
MORH  27.3  79    Pg    9:44:54.48   -0.11
                  Sg      44:58.22   -0.18
PKSV  31.2 186    Pg    9:44:55.33    0.06
                  Sg      44:59.68    0.06
```

68.

```
 2019-02-01  time: 11:45:38.25 UTC  ML= 2.6
   lat: 46.007N  lon: 16.403E  h= 13.5 km
                 erh= 8.2km    erz= 5.6km
   nr=  9        gap=169       rms=1.31
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOGS  50.5 347    Pg   11:45:49.13    1.56
                  Sg      45:53.87   -0.98
CRES  76.1 255    Pg   11:45:52.72    0.68
                  Sg      46:00.59   -2.22
GROS  85.9 306    Pg   11:45:52.65   -1.12
KOVH 131.7  86    Sn   11:46:15.60   -1.33
OBKA 153.5 291    Pn   11:46:04.48    1.79
                  Sn      46:20.95   -0.81
ARSA 153.8 334    Sn   11:46:21.82   -0.02
```

69.

```
 2019-02-02  time: 18:57:25.67 UTC  ML= 1.6
   lat: 47.832N  lon: 18.654E  h= 13.6 km
                 erh= 1.6km    erz= 1.9km
   nr= 18        gap=106       rms=0.62
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
SRO   25.6 265    Pg   18:57:31.28    0.43
                  Sg      57:34.14   -0.74
A338  30.4 312    Pg   18:57:32.20    0.59
                  Sg      57:36.28    0.03
PENC  47.2  96    Sg   18:57:41.36    0.07
A336  51.5  30    PgD  18:57:35.58    0.40
                  Sg      57:42.14   -0.46
PKSG  52.8 202    Pg   18:57:35.81    0.41
                  Sg      57:42.39   -0.61
CSKK  59.9 210    Pg   18:57:36.74    0.09
                  Sg      57:44.39   -0.82
A339  74.7 270    Sg   18:57:51.38    1.56
VYHS  74.8  10    Pg   18:57:39.46    0.21
                  Sg      57:47.99   -1.86
PKST  79.0 216    Sg   18:57:50.15   -0.99
A337  79.1 305    Sg   18:57:50.17   -1.01
EGYH 109.6 245    Sn   18:57:59.75    0.33
MPLH 111.7 229    Sn   18:57:59.48   -0.40
```

70.

```
 2019-02-04  time:  3:07:49.17 UTC  ML= 1.5
   lat: 48.361N  lon: 22.931E  h= 10.7 km
                 erh= 2.8km    erz= 1.1km
   nr=  6        gap=266       rms=0.17
   Locality: Ukraine
   Comments:

sta   dist azm  phase  hr mn  sec     res
TRPA  38.8 229    Pg    3:07:56.48    0.12
                  Sg      08:01.65   -0.31
KOLS  80.0 323    Pg    3:08:03.46   -0.12
                  Sg      08:15.13    0.30
ABAH 125.7 267    Pn    3:08:10.56    0.06
                  Sn      08:27.03   -0.11
```

71.

```
 2019-02-04  time:  8:30:24.75 UTC  ML= 1.6
   lat: 47.854N  lon: 19.861E  h=  0.0 km
                 erh= 3.8km    erz= 6.8km
   nr= 12        gap=147       rms=0.91
   Locality: Gyöngyösoroszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ    7.6  19    PgU   8:30:27.30    1.19
                  Sg      30:28.67    1.50
PENC  44.0 261    Pg    8:30:33.02    0.42
                  Sg      30:38.92    0.20
A336  76.9 303    Sg    8:30:49.12   -0.07
KECS  84.0  34    Sg    8:30:50.81   -0.64
VYHS 104.3 313    Pg    8:30:43.99    0.61
                  Sg      30:56.11   -1.80
ABAH 113.9  64    Pg    8:30:44.30   -0.79
                  Sg      31:00.28   -0.67
PKSG 121.9 245    Sg    8:31:01.93   -1.56
PKB5 163.9 211    Sn    8:31:13.54   -0.10
```

72.

```
 2019-02-04  time:  9:24:57.83 UTC  ML= 1.5
   lat: 48.627N  lon: 20.748E  h=  0.0 km
                 erh= 3.2km    erz= 3.6km
   nr= 11        gap=194       rms=0.72
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  25.1 230    Pg    9:25:02.92    0.60
                  Sg      25:06.03    0.21
ABAH  51.8 135    Pg    9:25:06.92   -0.16
                  Sg      25:14.13   -0.16
PSZ  101.1 219    Pg    9:25:14.78   -1.11
                  Sg      25:29.79   -0.19
LANS 110.4 302    Pg    9:25:18.35    0.80
                  Sg      25:32.21   -0.73
A336 136.6 251    Sn    9:25:40.32   -0.36
VYHS 141.9 264    Pn    9:25:23.67    1.11
                  Sn      25:40.70   -1.14
```

73.

```
 2019-02-04  time: 11:14:52.51 UTC  ML= 1.2
   lat: 47.216N  lon: 18.308E  h=  0.0 km
                 erh= 4.3km    erz= 658km
   nr=  8        gap=247       rms=0.47
   Locality: Moha
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.8 348    Pg   11:14:55.46   -0.04
                  Sg      14:58.17    0.33
PKSG  20.5  18    Pg   11:14:56.08   -0.09
                  Sg      14:59.14    0.11
PKST  21.3 283    Pg   11:14:55.65   -0.66
                  Sg      14:58.52   -0.76
MPLH  58.5 265    Pg   11:15:03.60    0.65
                  Sg      15:11.67    0.57
```

74.

```
 2019-02-04  time: 20:04:09.07 UTC  ML= 1.6
   lat: 46.395N  lon: 21.278E  h=  1.3 km
                 erh= 3.0km    erz= 3.4km
   nr= 21        gap=107       rms=1.25
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
SIRR  32.7 116    PgC  20:04:15.93    1.02
                  Sg      04:18.80   -0.67
AMBH  42.7 263    PgD  20:04:16.55   -0.16
                  Sg      04:22.11   -0.55
BORR  86.5  27    Sg   20:04:37.00    0.45
BZS   90.4 163    Pg   20:04:25.33    0.11
                  Sg      04:36.48   -1.34
SURR  96.8 137    PgC  20:04:27.48    1.12
                  Sg      04:37.70   -2.15
DRGR 118.4  68    Pg   20:04:30.18   -0.03
                  Sg      04:44.14   -2.56
PKS6 133.5 280    Pn   20:04:32.44   -0.14
                  Sn      04:49.03   -1.89
MARR 144.7  78    PnC  20:04:35.11    1.13
                  Sn      04:51.60   -1.81
MESR 152.8  57    PnC  20:04:38.09    3.10
                  Sn      04:54.40   -0.81
GZR  161.1 134    PnD  20:04:37.68    1.65
                  Sn      04:55.90   -1.15
MDVR 182.6 169    PnD  20:04:40.58    1.88
                  Sn      05:02.90    1.08
```

75.

```
 2019-02-05  time:  6:14:50.51 UTC  ML= 1.7
   lat: 46.960N  lon: 21.723E  h= 13.6 km
                 erh= 2.3km    erz= 1.6km
   nr= 18        gap= 86       rms=0.73
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
BORR  15.3  18    PgC   6:14:53.93   -0.22
                  Sg      14:57.20    0.20
SIRR  77.1 184    PgD   6:15:04.57    0.08
                  Sg      15:14.20   -1.19
DRGR  77.6 104    Pg    6:15:04.71    0.13
                  Sg      15:14.55   -1.00
AMBH 102.1 228    S*    6:15:21.33   -1.23
MARR 111.1 106    PnC   6:15:10.49    0.83
                  Sn      15:23.40   -1.20
SURR 137.5 167    PnC   6:15:13.68    0.72
                  Sn      15:30.30   -0.17
BZS  149.5 183    Pn    6:15:15.41    0.96
                  Sn      15:33.03   -0.10
ABAH 153.0 346    Sn    6:15:33.18   -0.71
PSZ  174.3 308    Sn    6:15:38.56   -0.07
GZR  192.2 155    PnC   6:15:20.86    1.09
                  Sn      15:43.50    0.90
MDVR 242.1 180    Sn    6:15:53.60   -0.08
```

76.

```
 2019-02-05  time:  9:07:27.08 UTC  ML= 1.0
   lat: 47.130N  lon: 18.253E  h=  0.0 km
                 erh= 2.9km    erz= 351km
   nr=  6        gap=291       rms=0.21
   Locality: Nádasdladány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  21.9 311    Pg    9:07:30.93   -0.07
                  Sg      07:34.26    0.20
CSKK  25.9   1    Pg    9:07:31.64   -0.08
                  Sg      07:34.64   -0.69
PKSG  30.9  20    Pg    9:07:32.79    0.18
                  Sg      07:37.00    0.09
```

77.

```
 2019-02-05  time: 10:58:49.99 UTC  ML= 1.7
   lat: 47.367N  lon: 18.396E  h=  0.0 km
                 erh= 3.2km    erz= ***km
   nr= 11        gap= 94       rms=1.02
   Locality: Gánt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   2.8 352    Pg   10:58:50.75    0.26
                  Sg      58:51.28    0.40
CSKK  10.2 268    Pg   10:58:52.05    0.23
                  Sg      58:53.99    0.75
PKST  29.9 246    Pg   10:58:55.19   -0.13
                  Sg      58:58.86   -0.62
PKB1  71.4 155    Pg   10:59:04.53    1.79
PSZ  128.2  61    Sg   10:59:30.07   -0.68
MORH 129.4 172    Sg   10:59:29.11   -1.99
VYHS 129.6  15    Sg   10:59:30.06   -1.12
PKSM 129.8 172    Sg   10:59:29.02   -2.21
```

78.

```
 2019-02-05  time: 11:12:56.32 UTC  ML= 2.0
   lat: 47.325N  lon: 18.413E  h=  0.0 km
                 erh= 1.4km    erz= 2.5km
   nr= 10        gap=113       rms=0.65
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   7.6 347    Pg   11:12:57.80    0.12
                  Sg      12:58.24   -0.50
CSKK  12.3 290    Pg   11:12:59.34    0.82
                  Sg      13:00.79    0.55
PKST  29.6 256    Sg   11:13:05.58   -0.16
MORH 124.6 172    Sg   11:13:35.58   -0.34
PKSM 125.0 172    Sg   11:13:36.03   -0.02
PSZ  129.4  59    Sg   11:13:37.69    0.24
VYHS 133.7  14    Sn   11:13:37.34   -1.19
SOP  145.3 286    Sn   11:13:39.10   -2.00
```

79.

```
 2019-02-05  time: 21:39:13.23 UTC  ML= 1.3
   lat: 47.835N  lon: 18.330E  h= 10.0 km
                 erh= 3.2km    erz= 2.4km
   nr=  8        gap=157       rms=0.34
   Locality: Slovakia
   Comments:
```

```
sta   dist azm  phase  hr mn  sec     res
SRO    2.7 208    PgD  21:39:15.44    0.36
                  Sg      39:16.15   -0.37
A338  20.1   5    Sg   21:39:20.00   -0.37
PKSG  49.5 175    Pg   21:39:22.64    0.40
                  Sg      39:28.75   -0.52
A336  66.7  48    Sg   21:39:34.66   -0.01
PKST  67.8 199    Sg   21:39:34.99   -0.01
VYHS  82.4  27    Sg   21:39:39.33   -0.28
```

80.

```
 2019-02-06  time:  9:48:30.24 UTC  ML= 1.6
   lat: 48.610N  lon: 20.756E  h=  0.0 km
                 erh= 1.9km    erz= 2.4km
   nr= 11        gap=130       rms=0.50
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.4 235    Pg    9:48:34.67    0.07
                  Sg      48:37.29   -0.72
ABAH  50.0 134    Sg    9:48:45.42   -0.72
PSZ  100.0 220    Pg    9:48:49.03    0.93
                  Sg      49:01.89   -0.14
LANS 112.0 302    Pg    9:48:50.15   -0.08
                  Sg      49:05.10   -0.73
KOLS 117.2  72    Sg    9:49:07.61    0.12
A336 136.6 252    Sn    9:49:12.73   -0.35
VYHS 142.3 265    Pn    9:48:55.42    0.40
                  Sn      49:14.50    0.16
```

81.

```
 2019-02-06  time:  9:51:21.78 UTC  ML= 1.8
   lat: 47.715N  lon: 18.647E  h=  0.0 km
                 erh= 4.3km    erz= 546km
   nr=  6        gap=249       rms=0.32
   Locality: Tokod
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
SRO   27.3 294    Pg    9:51:26.31   -0.35
                  Sg      51:30.68    0.22
PKSG  40.8 208    Sg    9:51:34.85    0.11
CSKK  48.7 217    Pg    9:51:30.88    0.40
                  Sg      51:36.81   -0.46
NADP  50.9 182    Sg    9:51:37.96    0.01
```

82.

```
 2019-02-06  time: 15:15:45.62 UTC  ML= 1.0
   lat: 48.649N  lon: 19.421E  h=  3.9 km
                 erh= 1.1km    erz=21.1km
   nr=  7        gap=153       rms=0.69
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
VYHS  46.4 248    Pg   15:15:54.21    0.27
                  Sg      15:59.64   -0.79
A336  55.7 214    Sg   15:16:02.65   -0.73
LANS  55.9   4    Pg   15:15:56.27    0.64
                  Sg      16:02.60   -0.84
PSZ   88.5 157    Pg   15:16:02.15    0.71
                  Sg      16:12.80   -0.97
```

83.

```
 2019-02-06  time: 15:43:37.91 UTC  ML= 1.5
   lat: 47.924N  lon: 20.740E  h= 10.0 km
                 erh= 2.2km    erz= 1.8km
   nr=  9        gap=132       rms=0.37
   Locality: Vatta
   Comments:

sta   dist azm  phase  hr mn  sec     res
ABAH  55.7  42    Pg   15:43:48.01    0.00
                  Sg      43:54.94   -0.94
PSZ   63.2 269    Pg   15:43:49.37    0.04
                  Sg      43:57.88   -0.36
KECS  65.0 343    Pg   15:43:50.16    0.51
                  Sg      43:58.92    0.11
PENC 110.1 262    Sn   15:44:12.09   -0.50
KOLS 159.6  45    Sn   15:44:23.68    0.10
DRGR 195.0 130    Sn   15:44:31.77    0.32
```

84.

```
 2019-02-06  time: 15:57:39.76 UTC  ML= 1.7
   lat: 47.924N  lon: 20.737E  h=  3.3 km
                 erh= 1.7km    erz= 1.6km
   nr= 13        gap=100       rms=0.44
   Locality: Vatta
   Comments:

sta   dist azm  phase  hr mn  sec     res
ABAH  55.7  42    Pg   15:57:49.74    0.01
                  Sg      57:56.76   -0.75
PSZ   63.0 269    Pg   15:57:51.34    0.31
                  Sg      57:59.68   -0.13
KECS  64.9 343    Pg   15:57:51.54    0.18
                  Sg      58:00.38   -0.03
PENC 109.9 262    Sg   15:58:14.01   -0.71
A336 134.0 285    Sn   15:58:21.37    0.11
PKS7 153.7 231    Sn   15:58:25.09   -0.55
VYHS 154.8 294    Sn   15:58:26.52    0.63
KOLS 159.7  45    Sn   15:58:26.89   -0.08
DRGR 195.2 130    Pn   15:58:11.55    0.84
                  Sn      58:33.71   -1.14
```

85.

```
 2019-02-06  time: 19:12:21.12 UTC  ML= 1.5
   lat: 47.889N  lon: 20.782E  h=  3.6 km
                 erh= 3.3km    erz= 5.7km
   nr=  7        gap=143       rms=0.41
   Locality: Vatta
   Comments:

sta   dist azm  phase  hr mn  sec     res
ABAH  56.6  37    Pg   19:12:31.68    0.42
                  Sg      12:38.61   -0.55
PSZ   66.4 273    Pg   19:12:33.13    0.13
                  Sg      12:41.62   -0.64
KECS  69.6 342    Pg   19:12:33.89    0.32
                  Sg      12:42.72   -0.56
DRGR 190.2 130    Sn   19:13:14.86   -0.16
```

86.

```
 2019-02-07  time:  3:22:50.24 UTC  ML= 0.8
   lat: 48.181N  lon: 18.952E  h= 10.0 km
                 erh= 3.7km    erz= 5.3km
   nr=  7        gap=135       rms=0.59
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
A336   6.7  31    PgD   3:22:52.85    0.45
                  Sg      22:54.09    0.01
```

```
VYHS  35.8 346    Pg    3:22:57.07    0.18
                  Sg      23:01.33   -0.74
A338  48.4 248    Pg    3:22:59.53    0.47
                  Sg      23:05.38   -0.56
PSZ   76.1 113    Sg    3:23:12.95   -1.68
```

87.

```
 2019-02-07  time:  8:10:45.73 UTC  ML= 0.6
   lat: 47.068N  lon: 18.005E  h=  0.0 km
                 erh= 0.9km    erz= 253km
   nr=  5        gap=135       rms=0.11
   Locality: Balatonfűzfő
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  21.3   6    Pg    8:10:49.47   -0.07
                  Sg      10:52.38   -0.13
MPLH  37.1 288    Sg    8:10:57.60    0.07
CSKK  38.1  30    Sg    8:10:58.06    0.23
PKSM 106.9 153    Sg    8:11:19.71    0.00
```

88.

```
 2019-02-07  time:  9:52:48.09 UTC  ML= 2.1
   lat: 48.500N  lon: 17.389E  h=  0.0 km
                 erh= 1.3km    erz= 355km
   nr=  6        gap=178       rms=0.21
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
SMOL   3.3  63    Pg    9:52:48.57   -0.10
                  Sg      52:49.20    0.07
KRUC  96.1 311    Sg    9:53:18.57   -0.07
VRAC 107.1 327    Sg    9:53:22.04   -0.10
CONA 130.1 241    Pg    9:53:11.69    0.36
                  Sg      53:29.12   -0.33
```

89.

```
 2019-02-07  time:  9:55:50.04 UTC  ML= 1.5
   lat: 47.844N  lon: 19.129E  h=  0.0 km
                 erh= 0.7km    erz= 3.5km
   nr= 13        gap=112       rms=0.33
   Locality: Szendehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  12.9 117    Pg    9:55:52.35    0.00
                  Sg      55:54.23    0.08
BUD   40.8 191    Sg    9:56:03.15    0.13
A336  44.3 347    Pg    9:55:58.43    0.47
                  Sg      56:03.82   -0.32
PSZ   57.9  82    Pg    9:56:00.38    0.00
                  Sg      56:08.32   -0.12
PKSG  74.9 228    Sg    9:56:13.89    0.04
VYHS  75.5 343    Sg    9:56:13.49   -0.55
CSKK  84.4 231    Sg    9:56:17.49    0.62
PKST 105.0 232    Sg    9:56:23.26   -0.15
PKB1 120.5 192    Sg    9:56:27.98   -0.38
PKB5 142.0 192    Sn    9:56:32.98   -1.11
```

90.

```
 2019-02-07  time:  9:57:14.53 UTC  ML= 1.6
   lat: 48.601N  lon: 20.782E  h=  0.0 km
                 erh= 4.2km    erz= 5.1km
   nr=  9        gap=166       rms=0.63
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  25.5 239    Pg    9:57:19.57    0.49
                  Sg      57:22.33   -0.31
ABAH  47.9 135    Pg    9:57:23.44    0.36
                  Sg      57:29.64   -0.12
PSZ  100.5 221    Pg    9:57:32.83    0.35
                  Sg      57:45.95   -0.54
KOLS 115.7  71    Sg    9:57:49.79   -1.50
VYHS 144.2 265    Pn    9:57:39.92    0.38
                  Sn      57:57.58   -1.47
```

91.

```
 2019-02-07  time: 11:41:36.03 UTC  ML= 1.2
   lat: 46.125N  lon: 18.037E  h=  0.0 km
                 erh= 1.0km    erz= 133km
   nr=  7        gap=290       rms=0.09
   Locality: Bükkösd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   6.4 130    Pg   11:41:37.14   -0.02
                  Sg      41:38.18    0.13
PKSV  31.1 148    Sg   11:41:45.62   -0.30
PKSM  47.7  78    Pg   11:41:44.62    0.07
                  Sg      41:51.13   -0.06
MORH  48.0  78    Pg   11:41:44.62    0.02
                  Sg      41:51.23   -0.06
```

92.

```
 2019-02-07  time: 14:34:23.52 UTC  ML= 1.7
   lat: 46.398N  lon: 21.240E  h= 14.4 km
                 erh= 3.2km    erz= 2.3km
   nr= 15        gap=101       rms=0.78
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
SIRR  35.5 114    PgD  14:34:30.19   -0.17
                  Sg      34:35.60   -0.09
AMBH  39.9 262    Pg   14:34:30.99   -0.11
                  Sg      34:36.49   -0.51
BZS   91.6 161    P*   14:34:39.67   -0.19
                  S*      34:50.38   -2.23
SURR  99.1 136    P*D  14:34:41.94    0.94
                  S*      34:54.30   -0.32
DRGR 121.0  69    Pn   14:34:44.03    0.23
                  Sn      34:58.23   -1.39
MARR 147.4  78    PnD  14:34:48.38    1.28
                  Sn      35:05.10   -0.39
GZR  163.4 133    PnC  14:34:50.63    1.54
                  Sn      35:09.50    0.46
PSZ  197.4 329    Sn   14:35:15.70   -0.88
```

93.

```
 2019-02-08  time:  1:13:34.83 UTC  ML= 1.8
   lat: 46.967N  lon: 21.696E  h= 10.0 km
                 erh= 2.1km    erz= 1.6km
   nr= 20        gap= 81       rms=0.82
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
BORR  15.3  26    PgC   1:13:38.62    0.52
                  Sg      13:41.00    0.35
SIRR  77.8 182    PgC   1:13:49.03    0.20
                  Sg      13:58.10   -1.65
DRGR  79.8 104    Pg    1:13:49.20    0.01
                  Sg      13:59.74   -0.65
MESR  97.4  78    PgC   1:13:52.13   -0.18
                  Sg      14:05.40   -0.55
AMBH 101.0 227    Sg    1:14:05.87   -1.23
MARR 113.3 107    PnD   1:13:54.91    0.20
                  Sn      14:09.30   -0.92
SURR 138.8 166    PnC   1:13:59.18    1.29
```

```
                  Sn      14:15.60   -0.28
TRPA 144.1  26    Sn    1:14:15.96   -1.10
BZS  150.2 182    Sn    1:14:18.49    0.08
ABAH 151.7 347    Pn    1:14:00.66    1.16
                  Sn      14:18.25   -0.50
PSZ  172.2 308    Sn    1:14:23.23   -0.07
GZR  193.8 154    Sn    1:14:29.90    1.82
ARCR 202.5  86    Sn    1:14:34.34    4.33*
HERR 238.5 166    Sn    1:14:40.10    2.10
```

94.

```
 2019-02-08  time:  8:30:51.48 UTC  ML= 1.0
   lat: 47.122N  lon: 18.119E  h=  0.0 km
                 erh= 1.4km    erz= 516km
   nr= 11        gap=124       rms=0.41
   Locality: Berhida
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  16.5 337    PgU   8:30:54.07   -0.36
                  Sg      30:56.45   -0.28
TIH   30.1 215    Sg    8:31:01.20    0.15
PKSG  36.3  34    Pg    8:30:58.02    0.05
                  Sg      31:03.39    0.36
MPLH  44.3 277    Pg    8:30:59.82    0.43
                  Sg      31:05.29   -0.27
MORH 108.5 158    Pg    8:31:11.14    0.29
                  Sg      31:25.06   -0.89
PKSM 108.8 158    Pg    8:31:11.21    0.30
                  Sg      31:24.99   -1.07
```

95.

```
 2019-02-08  time:  9:01:13.01 UTC  ML= 1.6
   lat: 48.618N  lon: 20.757E  h=  0.0 km
                 erh= 4.7km    erz= 7.3km
   nr=  7        gap=181       rms=0.61
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  25.1 233    Pg    9:01:17.56    0.08
                  Sg      01:21.17    0.20
ABAH  50.6 135    Pg    9:01:22.48    0.44
                  Sg      01:28.71   -0.37
PSZ  100.8 219    Sg    9:01:44.12   -0.93
KOLS 116.8  73    Sg    9:01:48.54   -1.59
A336 137.0 252    Pn    9:01:37.64    0.51
```

96.

```
 2019-02-08  time:  9:10:09.94 UTC  ML= 1.8
   lat: 46.988N  lon: 22.267E  h=  0.0 km
                 erh= 3.7km    erz= 4.4km
   nr= 21        gap=122       rms=1.35
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  40.3 123    Pg    9:10:18.15    1.02
                  Sg      10:23.12    0.38
MARR  73.7 118    PgC   9:10:23.86    0.76
                  Sg      10:32.50   -0.86
SIRR  92.6 210    PgC   9:10:26.79    0.32
                  Sg      10:37.90   -1.47
CJR  106.0 107    PgC   9:10:30.13    1.26
                  Sg      10:42.00   -1.64
TRPA 128.7   9    Pg    9:10:32.96    0.04
                  Sg      10:47.63   -3.21
DEV  132.2 158    PnD   9:10:33.47    0.02
                  Sn      10:46.90   -4.89
SURR 137.6 185    Sn    9:10:49.20   -3.80
BZS  160.4 198    Pn    9:10:37.72    0.74
                  Sn      10:57.68   -0.39
ABAH 164.7 332    Pn    9:10:37.51    0.00
GZR  181.5 167    PnC   9:10:40.76    1.15
                  Sn      11:01.60   -1.15
LOT  206.7 146    PnC   9:10:44.30    1.55
                  Sn      11:08.30   -0.05
BURA 233.8  73    PnC   9:10:49.20    3.08
```

97.

```
 2019-02-08  time:  9:16:09.85 UTC  ML= 1.9
   lat: 47.361N  lon: 18.423E  h=  0.0 km
                 erh= 3.9km    erz= ***km
   nr= 14        gap= 76       rms=1.41
   Locality: Gánt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   4.2 324    PgU   9:16:10.67    0.07
                  Sg      16:11.26    0.07
CSKK  12.3 271    Pg    9:16:11.90   -0.14
                  Sg      16:13.79    0.03
NADP  18.6 128    Pg    9:16:16.52    3.34
PKST  31.5 249    Pg    9:16:15.97    0.49
MPLH  70.2 252    Pg    9:16:23.05    0.67
PKB4  97.1 172    Sg    9:16:41.43    0.72
A336 106.2  24    Sg    9:16:43.47   -0.12
PSZ  126.8  61    Sg    9:16:48.56   -1.58
MORH 128.4 172    Sg    9:16:47.56   -3.10
PKSM 128.8 173    Pg    9:16:32.29   -0.56
                  Sg      16:47.53   -3.26
VYHS 129.7  14    Sg    9:16:49.39   -1.69
```

98.

```
 2019-02-08  time: 11:57:36.43 UTC  ML= 1.4
   lat: 48.653N  lon: 19.445E  h=  0.6 km
                 erh= 1.1km    erz= 120km
   nr=  8        gap=215       rms=0.76
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
VYHS  48.3 249    Pg   11:57:45.06    0.01
                  Sg      57:50.48   -1.29
A336  57.2 215    Pg   11:57:47.17    0.54
                  Sg      57:53.59   -1.00
KECS  79.1 104    Pg   11:57:51.06    0.51
                  Sg      58:00.45   -1.11
PSZ   88.2 158    Pg   11:57:53.09    0.91
                  Sg      58:03.74   -0.73
```

99.

```
 2019-02-08  time: 11:58:30.47 UTC  ML= 1.3
   lat: 47.532N  lon: 18.517E  h=  0.0 km
                 erh= 3.3km    erz= 4.3km
   nr=  8        gap=145       rms=0.20
   Locality: Szárliget
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  18.3 211    Pg   11:58:33.72   -0.03
                  Sg      58:36.35    0.05
CSKK  27.0 226    Pg   11:58:34.93   -0.37
                  Sg      58:39.55    0.49
PKST  47.5 230    Pg   11:58:38.98    0.03
                  Sg      58:45.39   -0.18
VYHS 109.5  13    Pg   11:58:50.11    0.08
PKB3 133.6 157    Pn   11:58:54.34    0.18
```

100.

```
 2019-02-09  time:  2:02:51.19 UTC  ML= 0.8
   lat: 47.294N  lon: 17.725E  h=  0.4 km
                 erh= 2.5km    erz= 161km
   nr=  9        gap=143       rms=0.61
   Locality: Bakonykoppány
   Comments:

sta   dist azm  phase  hr mn  sec     res
MPLH  19.7 226    Pg    2:02:53.92   -0.79
                  Sg      02:56.85   -0.60
PKST  23.7  99    Pg    2:02:55.23   -0.20
                  Sg      02:58.24   -0.50
EGYH  32.7 295    Sg    2:03:02.30    0.71
CSKK  41.2  79    Sg    2:03:04.61    0.32
TIH   45.6 164    Pg    2:03:00.36    1.02
PKSG  51.5  78    Pg    2:03:00.69    0.31
                  Sg      03:07.09   -0.46
```

101.

```
 2019-02-09  time: 23:42:30.86 UTC  ML= 1.9
   lat: 46.889N  lon: 21.501E  h= 10.0 km
                 erh= 2.2km    erz= 1.8km
   nr= 21        gap= 89       rms=0.85
   Locality: Mezőgyán
   Comments:

sta   dist azm  phase  hr mn  sec     res
BORR  31.1  44    PgC  23:42:36.97    0.27
                  Sg      42:42.50    1.25
SIRR  70.2 170    PgC  23:42:44.13    0.61
                  Sg      42:53.00   -0.39
AMBH  84.4 225    Pg   23:42:46.60    0.57
                  Sg      42:56.93   -0.94
DRGR  92.9  97    Pg   23:42:47.03   -0.52
                  Sg      42:58.98   -1.59
MESR 113.8  75    PnD  23:42:50.58   -0.23
                  Sn      43:04.60   -1.77
MARR 125.8 101    PnC  23:42:52.69    0.39
                  Sn      43:07.00   -2.02
BZS  141.7 176    Pn   23:42:54.86    0.57
                  Sn      43:12.20   -0.36
ABAH 157.7 353    Pn   23:42:56.62    0.34
                  Sn      43:15.11   -0.99
TRPA 158.6  30    Sn   23:43:16.50    0.19
CJR  161.3  97    PnD  23:42:58.52    1.80
                  Sn      43:17.80    0.90
PSZ  166.8 313    Sn   23:43:17.66   -0.46
GZR  193.3 149    Sn   23:43:24.30    0.30
```

102.

```
 2019-02-09  time: 23:45:12.35 UTC  ML= 2.2
   lat: 48.159N  lon: 22.879E  h=  7.7 km
                 erh= 3.9km    erz= 2.8km
   nr= 23        gap=137       rms=1.28
   Locality: Ukraine
   Comments:

sta   dist azm  phase  hr mn  sec     res
TRPA  25.5 263    Pg   23:45:18.19    1.09
                  Sg      45:22.10    1.29
BMR   71.1 139    PgC  23:45:24.69   -0.42
                  Sg      45:33.60   -1.47
KOLS  97.0 333    Pg   23:45:28.79   -0.94
                  Sg      45:40.95   -2.34
MESR 112.3 177    PnC  23:45:32.62    0.21
                  Sn      45:47.10   -0.95
ABAH 122.8 277    Pn   23:45:32.72   -0.99
                  Sn      45:48.90   -1.48
DRGR 152.5 185    PnD  23:45:38.75    1.33
                  Sn      45:55.80   -1.18
ARCR 162.9 137    PnD  23:45:39.48    0.77
                  Sn      45:59.00   -0.27
MARR 165.9 174    PnC  23:45:40.83    1.75
                  Sn      45:59.10   -0.83
CJR  169.6 161    PnC  23:45:41.66    2.11
                  Sn      46:01.10    0.33
KECS 181.1 281    Sn   23:46:05.23    1.90
STHS 184.4 319    Sn   23:46:06.59    2.53
BURA 185.0 109    PnD  23:45:42.22    0.75
                  Sn      46:04.00   -0.19
SIRR 229.7 204    PnC  23:45:43.78   -3.26
```

103.

```
 2019-02-10  time:  2:24:37.37 UTC  ML= 0.2
   lat: 47.381N  lon: 18.113E  h=  6.6 km
                 erh= 5.4km    erz= 6.1km
   nr=  6        gap=243       rms=0.10
   Locality: Nagyveleg
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK  11.3 100    Pg    2:24:39.72    0.01
                  Sg      24:41.25   -0.28
PKST  14.8 204    Pg    2:24:40.30    0.03
                  Sg      24:42.53    0.01
PKSG  21.0  87    Pg    2:24:41.25   -0.05
                  Sg      24:44.54    0.18
```

104.

```
 2019-02-11  time:  9:18:27.72 UTC  ML= 1.4
   lat: 48.599N  lon: 20.738E  h=  0.0 km
                 erh= 5.7km    erz= ***km
   nr=  5        gap=196       rms=0.49
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.7 235    Pg    9:18:32.21    0.44
                  Sg      18:34.90   -0.02
ABAH  50.1 132    Sg    9:18:43.99    0.34
PSZ   98.3 220    Sg    9:18:58.10   -0.85
KOLS 118.8  72    Sg    9:19:04.97   -0.51
```

105.

```
 2019-02-11  time: 11:00:05.90 UTC  ML= 1.5
   lat: 47.854N  lon: 19.166E  h=  0.0 km
                 erh= 2.8km    erz= 821km
   nr=  7        gap=112       rms=0.57
   Locality: Ősagárd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  11.2 129    Pg   11:00:08.07    0.17
                  Sg      00:09.35   -0.11
A336  43.9 343    Pg   11:00:13.51   -0.24
                  Sg      00:19.29   -0.57
PSZ   54.9  83    Sg   11:00:23.20   -0.16
VYHS  75.2 341    Pg   11:00:20.36    1.02
PKSG  77.8 229    Sg   11:00:29.71   -0.91
```

106.

```
 2019-02-11  time: 14:23:10.74 UTC  ML= 1.6
   lat: 48.598N  lon: 21.510E  h=  0.0 km
                 erh= 0.8km    erz= 155km
   nr=  6        gap=206       rms=0.09
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  39.1 211    Pg   14:23:17.59   -0.14
                  Sg      23:23.35    0.18
```

```
KOLS  67.4  56    Pg   14:23:22.80    0.03
                  Sg      23:32.15   -0.01
TRPA  92.3 124    Pg   14:23:27.27    0.04
                  Sg      23:40.07   -0.02
```

107.

```
 2019-02-12  time: 12:23:35.56 UTC  ML= 1.6
   lat: 48.603N  lon: 20.797E  h=  0.0 km
                 erh= 1.8km    erz= 2.7km
   nr=  8        gap=166       rms=0.31
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  26.5 240    Pg   12:23:40.46    0.16
                  Sg      23:44.43    0.44
ABAH  47.3 136    Pg   12:23:44.28    0.28
                  Sg      23:50.45   -0.13
PSZ  101.4 221    Pg   12:23:53.61   -0.05
                  Sg      24:07.22   -0.56
KOLS 114.6  71    Sg   12:24:11.79   -0.19
VYHS 145.3 265    Sn   12:24:19.62   -0.70
```

108.

```
 2019-02-13  time:  8:04:12.33 UTC  ML= 1.8
   lat: 48.022N  lon: 16.586E  h=  0.0 km
                 erh= 2.4km    erz= 4.0km
   nr= 12        gap=120       rms=0.75
   Locality: Austria
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
SOP   37.7 183    Sg    8:04:24.03   -0.30
RONA  41.9 211    Pg    8:04:19.82    0.01
                  Sg      04:24.25   -1.40
CONA  55.0 259    Pg    8:04:22.93    0.77
                  Sg      04:30.81    0.98
EGYH  87.5 140    Sg    8:04:41.10    0.94
KRUC 116.5 353    Pg    8:04:33.47    0.34
                  Sg      04:48.53   -0.82
ARSA 117.2 223    Sg    8:04:48.69   -0.90
MPLH 118.8 143    Sg    8:04:49.09   -1.02
VRAC 143.0   0    Sn    8:04:56.02   -0.58
CSKK 145.5 120    Sn    8:04:57.63    0.48
```

109.

```
 2019-02-13  time:  8:53:20.56 UTC  ML= 1.9
   lat: 45.603N  lon: 17.347E  h= 12.5 km
                 erh= 1.5km    erz= 1.4km
   nr= 17        gap=122       rms=0.39
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  77.3  66    Pg    8:53:34.58    0.04
                  Sg      53:44.76   -0.68
KOVH  79.6  47    Pg    8:53:35.15    0.21
                  Sg      53:46.12   -0.04
BLY   95.8 188    P*    8:53:37.72    0.01
                  S*      53:50.88   -0.20
BEHE 106.1 335    Pn    8:53:39.38    0.15
                  Sn      53:52.89   -0.90
PTJ  113.0 287    Pn    8:53:39.66   -0.43
                  Sn      53:53.83   -1.50
PKSM 121.1  56    Pn    8:53:41.29    0.19
                  Sn      53:57.05   -0.08
MORH 121.5  56    Pn    8:53:41.26    0.10
                  Sn      53:57.18   -0.04
CRES 149.3 280    Pn    8:53:45.06    0.45
                  Sn      54:03.20   -0.17
GROS 171.8 304    Pn    8:53:48.40    0.98
```

110.

```
 2019-02-13  time:  9:02:30.80 UTC  ML= 1.7
   lat: 47.876N  lon: 19.166E  h=  0.0 km
                 erh= 2.3km    erz= 426km
   nr=  7        gap=203       rms=0.29
   Locality: Nőtincs
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  12.8 138    Pg    9:02:32.75   -0.34
                  Sg      02:34.81   -0.07
A336  41.6 343    Pg    9:02:38.58    0.34
                  Sg      02:44.15    0.11
PSZ   54.7  85    Pg    9:02:40.79    0.23
                  Sg      02:48.17   -0.01
VYHS  73.0 340    Sg    9:02:53.44   -0.56
```

111.

```
 2019-02-13  time:  9:25:33.22 UTC  ML= 1.2
   lat: 47.304N  lon: 17.634E  h=  0.0 km
                 erh= 1.7km    erz= 385km
   nr=  5        gap=160       rms=0.17
   Locality: Homokbödöge
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  16.5 206    Pg    9:25:36.11   -0.05
                  Sg      25:38.49    0.03
EGYH  26.1 299    Pg    9:25:37.99    0.11
PKST  30.7  99    Pg    9:25:38.47   -0.23
                  Sg      25:43.34    0.37
```

112.

```
 2019-02-13  time:  9:31:15.96 UTC  ML= 1.3
   lat: 47.313N  lon: 17.630E  h=  0.0 km
                 erh= 0.9km    erz= 238km
   nr=  7        gap=144       rms=0.16
   Locality: Homokbödöge
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  17.3 203    Pg    9:31:19.03   -0.03
                  Sg      31:21.59    0.12
EGYH  25.3 297    Pg    9:31:20.44   -0.04
PKST  31.2 101    Pg    9:31:21.49   -0.04
                  Sg      31:25.26   -0.62
CSKK  48.0  83    Sg    9:31:31.47    0.25
PKSG  58.1  81    Sg    9:31:34.53    0.08
```

113.

```
 2019-02-13  time: 10:37:10.48 UTC  ML= 1.6
   lat: 47.330N  lon: 18.449E  h=  0.0 km
                 erh= 1.8km    erz= 405km
   nr=  8        gap=206       rms=0.29
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.1 327    Pg   10:37:11.90   -0.03
                  Sg      37:12.53   -0.53
CSKK  14.7 284    Pg   10:37:13.51    0.41
                  Sg      37:15.04   -0.11
PKST  32.3 256    Pg   10:37:16.47    0.22
                  Sg      37:20.46   -0.30
MORH 124.8 173    Sg   10:37:50.16    0.01
PKSM 125.2 173    Sg   10:37:49.91   -0.37
```

114.

2019-02-13 time: 10:56:14.04 UTC ML= 1.3
lat: 47.336N lon: 18.443E h= 0.0 km
erh= 1.0km erz= 7.5km
nr= 10 gap=114 rms=0.32
Locality: Zámoly
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	7.4	328	Pg	10:56:15.42	0.06
			Sg	56:15.77	-0.61
CSKK	14.1	282	Pg	10:56:16.75	0.19
			Sg	56:18.77	0.25
PKST	32.0	255	Pg	10:56:20.07	0.31
			Sg	56:23.84	-0.38
MORH	125.4	173	Sg	10:56:53.66	-0.25
PKSM	125.9	173	Sg	10:56:53.96	-0.08
PSZ	126.9	59	Sg	10:56:54.41	0.04
VYHS	132.1	13	Sn	10:56:53.56	-2.32*

115.

2019-02-13 time: 10:59:33.95 UTC ML= 1.9
lat: 48.146N lon: 16.873E h= 0.0 km
erh= 2.0km erz= 2.3km
nr= 13 gap= 89 rms=0.63
Locality: Austria
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
SMOL	58.1	45	Sg	10:59:52.22	-0.18
CONA	79.2	252	Pg	10:59:48.50	0.41
			Sg	59:59.30	0.17
KRUC	107.8	341	Pg	10:59:53.37	0.17
			Sg	11:00:07.78	-0.44
MPLH	119.4	155	Sg	10:60:11.47	-0.44
VRAC	130.9	351	Pn	10:59:57.04	-0.26
			Sn	11:00:13.96	-1.56
CSKK	135.6	130	Sn	10:60:13.23	-3.33
ARSA	142.0	226	Pn	10:59:59.10	0.41
			Sn	11:00:17.22	-0.77
VYHS	150.6	75	Pn	10:60:00.75	0.99
MORC	187.9	15	Sn	10:60:28.42	0.25

116.

2019-02-13 time: 13:15:20.40 UTC ML= 1.1
lat: 46.125N lon: 18.042E h= 0.0 km
erh= 1.6km erz= 315km
nr= 9 gap=231 rms=0.24
Locality: Hetvehely
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	6.0	133	Pg	13:15:21.66	0.18
			Sg	15:22.67	0.35
PKSV	30.9	148	Pg	13:15:25.52	-0.40
			Sg	15:30.11	-0.12
PKSM	47.3	78	Pg	13:15:28.87	0.03
			Sg	15:35.06	-0.36
MORH	47.6	78	Pg	13:15:29.11	0.21
			Sg	15:35.28	-0.24
PKS9	54.5	20	Pg	13:15:30.26	0.13

117.

2019-02-14 time: 11:01:37.72 UTC ML= 1.3
lat: 47.938N lon: 19.456E h= 0.0 km
erh= 0.8km erz= 191km
nr= 5 gap=140 rms=0.09
Locality: Szanda
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	21.0	218	Pg	11:01:41.55	0.09
			Sg	01:44.25	-0.13
PSZ	32.9	94	Pg	11:01:43.64	0.05
			Sg	01:48.06	-0.10
A336	47.3	314	Sg	11:01:52.70	-0.04

118.

2019-02-14 time: 11:34:23.58 UTC ML= 1.7
lat: 47.928N lon: 19.404E h= 0.0 km
erh= 1.2km erz= 373km
nr= 7 gap=126 rms=0.25
Locality: Becske
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	17.8	211	Pg	11:34:26.86	0.10
			Sg	34:29.01	-0.24
PSZ	36.7	92	Pg	11:34:30.25	0.13
			Sg	34:35.10	-0.13
A336	45.4	318	Pg	11:34:31.72	0.03
			Sg	34:38.23	0.21
VYHS	75.8	326	Sg	11:34:46.52	-1.15

119.

2019-02-14 time: 11:52:39.77 UTC ML= 1.5
lat: 48.387N lon: 18.432E h= 0.0 km
erh= 3.2km erz= 6.7km
nr= 10 gap=144 rms=0.69
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
VYHS	32.2	68	Pg	11:52:45.84	0.32
			Sg	52:49.85	-0.15
A336	45.4	112	Pg	11:52:49.04	1.17
			Sg	52:53.61	-0.58
PENC	91.7	136	Sg	11:53:08.33	-0.57
PKSG	110.6	182	Sg	11:53:14.85	-0.09
PSZ	120.6	116	Sg	11:53:17.47	-0.64
PKST	128.9	193	Sg	11:53:20.02	-0.70
MORC	167.7	337	Pn	11:53:08.10	0.39
			Sn	53:28.07	-1.44

120.

2019-02-15 time: 1:33:30.19 UTC ML= 0.6
lat: 48.308N lon: 18.470E h= 0.1 km
erh= 9.1km erz= ***km
nr= 5 gap=160 rms=0.79
Locality: Slovakia
Comments:

sta	dist	azm	phase	hr mn sec	res
VYHS	34.1	53	Pg	1:33:36.76	0.48
			Sg	33:39.53	-1.50
A336	40.2	102	Pg	1:33:38.07	0.71
			Sg	33:42.02	-0.93
A337	51.0	262	Sg	1:33:46.19	-0.20

121.

2019-02-15 time: 4:42:59.90 UTC ML= 2.1
lat: 48.451N lon: 17.231E h= 0.0 km
erh= 3.0km erz= 6.4km
nr= 10 gap=107 rms=0.91
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
SMOL	16.2	65	Pg	4:43:03.71	0.91
			Sg	43:06.69	1.64

KRUC	91.6	318	Pg	4:43:16.31	0.05
			Sg	43:28.26	-0.75
RONA	108.8	220	Pg	4:43:20.04	0.71
			Sg	43:35.11	0.63
CONA	117.2	240	Sg	4:43:36.39	-0.78
VYHS	118.8	88	Pg	4:43:20.70	-0.42
			Sg	43:36.44	-1.23
PKST	145.6	156	Sn	4:43:42.82	-1.91

122.

2019-02-15 time: 8:25:35.51 UTC ML= 2.2
lat: 47.008N lon: 22.238E h= 0.0 km
erh= 2.5km erz= 2.3km
nr= 27 gap=161 rms=0.91
Locality: Romania
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
DRGR	43.4	124	Pg	8:25:43.48	0.23
			Sg	25:48.26	-1.03
MESR	56.3	74	PgD	8:25:45.78	0.22
			Sg	25:53.20	-0.20
MARR	76.7	119	PgC	8:25:49.12	-0.08
			Sg	25:57.60	-2.28
SIRR	93.5	208	PgC	8:25:53.38	1.17
			Sg	26:04.60	-0.63
CJR	108.8	108	PgC	8:25:55.64	0.70
BMR	120.5	52	PgD	8:25:57.41	0.39
			Sg	26:13.90	0.10
TRPA	126.8	10	Pg	8:25:56.53	-1.62
SURR	139.7	184	PnC	8:26:00.14	0.18
			Sn	26:16.80	-2.23
ARCR	161.0	87	Pn	8:26:03.87	1.25
			Sn	26:23.57	-0.20
TIM	161.6	209	Sn	8:26:25.10	1.21
BZS	161.9	197	Pn	8:26:02.38	-0.35
			Sn	26:23.35	-0.62
GZR	184.3	167	PnC	8:26:06.61	1.09
			Sn	26:28.80	-0.12
LOT	209.9	146	Sn	8:26:34.20	-0.41
BURA	235.1	73	PnC	8:26:13.66	1.80
			Sn	26:39.90	-0.32
HERR	236.8	177	Sn	8:26:40.30	-0.30
VOIR	278.5	129	PnC	8:26:18.54	1.27
			Sn	26:50.20	0.36

123.

2019-02-15 time: 10:11:30.03 UTC ML= 1.6
lat: 47.340N lon: 18.400E h= 0.0 km
erh= 1.1km erz= 2.2km
nr= 7 gap=157 rms=0.32
Locality: Zámoly
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.9	353	Pg	10:11:31.41	0.34
			Sg	11:32.01	0.12
CSKK	10.8	284	Pg	10:11:31.94	-0.02
			Sg	11:33.22	-0.26
PKST	29.1	252	Sg	10:11:39.50	0.24
PKSM	126.7	172	Sg	10:12:09.97	-0.33
VYHS	132.4	14	Sn	10:12:11.04	-0.90

124.

2019-02-15 time: 11:22:27.15 UTC ML= 1.1
lat: 47.220N lon: 18.279E h= 0.0 km
erh= 1.2km erz= 169km
nr= 7 gap=240 rms=0.11
Locality: Iszkaszentgyörgy
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	15.9	355	Pg	11:22:30.18	0.19
			Sg	22:32.04	-0.17
PKST	19.0	283	Pg	11:22:30.56	0.02
			Sg	22:33.14	-0.04
PKSG	20.9	24	Pg	11:22:30.73	-0.14
			Sg	22:33.82	0.04
MPLH	56.3	264	Pg	11:22:37.23	0.03

125.

2019-02-16 time: 5:52:14.84 UTC ML= 1.6
lat: 46.321N lon: 17.288E h= 14.1 km
erh= 2.1km erz= 1.4km
nr= 24 gap= 70 rms=0.73
Locality: Somogyszob
Comments:

sta	dist	azm	phase	hr mn sec	res
A264	17.9	180	PgD	5:52:19.16	0.25
A263	35.6	3	Pg	5:52:22.08	0.39
A265	40.7	74	PgD	5:52:22.83	0.29
BEHE	42.8	293	Sg	5:52:27.88	-1.28
KOVH	67.8	112	Pg	5:52:27.94	0.73
			Sg	52:34.90	-1.95
KOGS	81.0	280	Pg	5:52:30.14	0.61
			Sg	52:39.84	-1.15
PKS9	81.7	69	Pg	5:52:29.89	0.24
			Sg	52:39.74	-1.46
PKSV	88.7	123	P*	5:52:31.41	0.65
			S*	52:42.79	-0.38
PKB4	103.1	79	Sn	5:52:46.65	-0.37
PKSM	105.1	97	Pn	5:52:32.48	-0.69
			Sn	52:46.11	-1.35
MORH	105.2	96	Pn	5:52:32.84	-0.35
			Sn	52:46.54	-0.96
PTJ	112.9	246	Pn	5:52:34.85	0.70
			Sn	52:48.33	-0.88
PKB5	115.3	75	Sn	5:52:49.69	-0.06
PKST	118.9	29	Sn	5:52:50.60	0.07
PKB1	126.4	66	Pn	5:52:36.75	0.92
			Sn	52:52.71	0.52
GROS	138.2	276	Sn	5:52:55.52	0.69

126.

2019-02-16 time: 6:16:38.59 UTC ML= 1.8
lat: 46.303N lon: 17.316E h= 13.2 km
erh= 1.9km erz= 1.5km
nr= 29 gap= 79 rms=0.78
Locality: Ötvöskónyi
Comments:

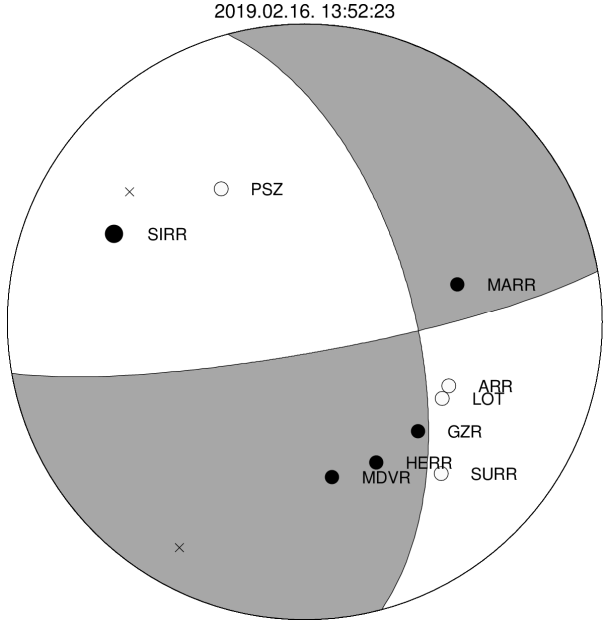
sta	dist	azm	phase	hr mn sec	res
A264	16.1	187	PgD	6:16:42.60	0.29
A263	37.5	360	Pg	6:16:45.53	-0.16
A265	39.3	70	Pg	6:16:46.29	0.30
KOVH	65.1	112	Pg	6:16:50.33	-0.11
			Sg	16:58.09	-1.60
A266	77.0	71	Pg	6:16:52.48	-0.06
PKS9	80.4	67	Pg	6:16:53.85	0.71
			Sg	17:05.04	0.55
KOGS	83.6	281	Pg	6:16:53.37	-0.33
			Sg	17:02.95	-2.53
PKSV	85.8	122	Pg	6:16:54.82	0.72
			Sg	17:06.45	0.26
MPLH	97.9	10	S*	6:17:08.63	-0.94
PKB4	101.3	78	S*	6:17:10.26	-0.25
PKSM	102.7	96	P*	6:16:56.06	-0.67
			S*	17:09.49	-1.38
MORH	102.9	95	P*	6:16:56.03	-0.72
			S*	17:09.55	-1.37
PKB5	113.8	73	Sn	6:17:13.26	-0.11
PTJ	114.2	247	Pn	6:16:57.96	-0.22
			Sn	17:12.71	-0.75

```
PKST 119.6  27    Pn    6:16:59.37    0.52
                  Sn      17:13.94   -0.71
EGYH 123.8   1    Sn    6:17:16.02    0.42
PKB1 125.2  65    Pn    6:17:00.43    0.87
                  Sn      17:16.53    0.62
CRES 153.3 250    Pn    6:17:04.74    1.68
                  Sn      17:24.13    1.98
PKB2 153.5  74    Sn    6:17:24.85    2.66
```

127.

```
 2019-02-16  time: 13:52:23.34 UTC  ML= 2.4
   lat: 46.376N  lon: 21.321E  h= 16.3 km
                 erh= 2.0km    erz= 1.7km
   nr= 32        gap= 99       rms=0.76
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
SIRR  28.8 115    PgC  13:52:29.09   -0.16
                  Sg      52:33.80   -0.05
BZS   87.5 165    P*   13:52:38.31   -0.56
                  S*      52:49.24   -1.74
SURR  93.0 138    P*D  13:52:39.64   -0.07
                  S*      52:50.90   -1.58
DRGR 116.1  67    Pn   13:52:42.66   -0.11
                  Sn      52:57.16   -0.76
PKSN 125.5 297    Pn   13:52:43.62   -0.31
PKS6 137.1 280    Pn   13:52:44.90   -0.49
                  Sn      53:00.50   -2.08
MARR 141.9  76    PnC  13:52:47.38    1.40
                  Sn      53:03.00   -0.64
GZR  157.2 134    PnC  13:52:49.37    1.48
                  Sn      53:07.70    0.67
PKS2 162.5 275    Pn   13:52:49.42    0.87
PKB2 162.9 282    Pn   13:52:48.78    0.18
                  Sn      53:07.96   -0.35
PKB3 163.6 272    Sn   13:53:08.10   -0.36
MDVR 179.9 170    PnC  13:52:51.09    0.37
                  Sn      53:11.80   -0.27
FRGS 181.2 220    Pn   13:52:51.70    0.81
                  Sn      53:13.10    0.73
HERR 186.9 153    PnC  13:52:52.69    1.10
                  Sn      53:14.20    0.58
PKB1 199.1 283    Pn   13:52:52.65   -0.46
PSZ  202.7 328    PnD  13:52:53.93    0.37
PKSM 207.3 265    Sn   13:53:19.12    0.97
LOT  216.2 119    PnD  13:52:55.75    0.50
                  Sn      53:20.30    0.17
ARR  280.6 114    PnD  13:53:03.44    0.17
                  Sn      53:35.10    0.68
VOIR 307.6 110    Sn   13:53:40.80    0.39*
```



128.

```
 2019-02-16  time: 21:20:11.62 UTC  ML= 0.2
   lat: 47.349N  lon: 18.181E  h=  2.0 km
                 erh=19.8km    erz=13.9km
   nr=  6        gap=205       rms=0.33
   Locality: Nagyveleg
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   6.2  75    Pg   21:20:12.69   -0.10
                  Sg      20:13.81    0.11
PKST  14.9 228    Pg   21:20:14.07   -0.24
                  Sg      20:16.41    0.01
PKSG  16.6  73    Pg   21:20:15.18    0.58
                  Sg      20:16.44   -0.49
```

129.

```
 2019-02-17  time: 14:40:44.30 UTC  ML= 2.7
   lat: 46.313N  lon: 17.296E  h= 15.8 km
                 erh= 0.9km    erz= 0.7km
   nr= 55        gap= 60       rms=0.52
   Locality: Somogyszob
   Comments: felt 4 EMS

sta   dist azm  phase  hr mn  sec     res
A264  17.1 182    PgD  14:40:48.80    0.34
                  Sg      40:51.19   -0.51
A263  36.4   2    PgD  14:40:51.26   -0.13
                  Sg      40:56.44   -0.48
A265  40.4  72    PgD  14:40:52.50    0.45
BEHE  43.7 294    Pg   14:40:52.58   -0.02
                  Sg      40:58.83   -0.23
KOVH  66.9 112    PgD  14:40:56.43   -0.15
                  Sg      41:04.55   -1.60
A266  78.1  72    P*D  14:40:58.57    0.11
TIH   79.7  35    P*   14:40:58.32   -0.37
                  S*      41:09.51   -0.40
PKS9  81.4  68    P*   14:40:59.12    0.16
                  S*      41:10.65    0.26
KOGS  81.8 281    P*   14:40:58.50   -0.52
                  S*      41:09.16   -1.34
PKSV  87.7 123    P*   14:41:00.26    0.34
                  S*      41:12.78    0.68
MPLH  97.1  11    P*   14:41:01.27   -0.07
                  S*      41:13.97   -0.65
PKB4 102.6  79    Pn   14:41:03.17    1.06
```

```
                    Sn      41:16.34    0.33
PKSM 104.3  96      Pn   14:41:02.11   -0.22
                    Sn      41:15.52   -0.87
MORH 104.5  96      Pn   14:41:02.15   -0.20
                    Sn      41:15.25   -1.18
PTJ  113.2 246      Pn   14:41:03.73    0.30
                    Sn      41:18.05   -0.30
ZAG  114.2 242      Pn   14:41:04.41    0.85
                    Sn      41:18.40   -0.18
PKB5 115.0  74      Pn   14:41:03.49   -0.16
                    Sn      41:18.11   -0.64
PKST 119.3  28      Pn   14:41:04.59    0.40
                    Sn      41:19.55   -0.16
PKB1 126.1  65      Pn   14:41:04.76   -0.29
GROS 139.0 277      Pn   14:41:06.35   -0.30
                    Sn      41:22.60   -1.48
PKSG 146.1  35      Pn   14:41:08.13    0.59
PKB3 146.6  85      Pn   14:41:08.15    0.55
                    Sn      41:25.10   -0.68
PKS2 148.8  82      Pn   14:41:08.12    0.25
                    Sn      41:26.38    0.13
CRES 152.3 249      Pn   14:41:08.32    0.02
                    Sn      41:27.45    0.43
PKB2 154.7  75      Pn   14:41:08.44   -0.17
                    Sn      41:30.96    3.40*
SOP  162.3 340      Pn   14:41:09.31   -0.25
                    Sn      41:30.46    1.20
ARSA 170.8 308      Pn   14:41:11.20    0.58
PERS 171.2 282      Pn   14:41:10.71    0.05
                    Sn      41:30.06   -1.16
CONA 210.0 329      Pn   14:41:17.04    1.54
FRGS 235.5 124      Pn   14:41:18.88    0.20
VYHS 268.9  26      Pn   14:41:23.45    0.60
MOA  286.6 307      Pn   14:41:26.37    1.32
                    Sn      41:57.06    0.23
KBA  314.0 286      Pn   14:41:28.78    0.31*
                    Sn      42:03.36    0.44*
BBLS 318.7 149      Pn   14:41:30.29    1.24*
KHC  419.5 318     ePn   14:41:43.30    1.68*
                   eSn      42:26.40    0.07*
KRLC 420.1 355     ePn   14:41:43.00    1.30*
```

130.

```
 2019-02-17  time: 15:03:50.12 UTC  ML= 2.0
   lat: 46.310N  lon: 17.294E  h= 13.4 km
                 erh= 2.1km    erz= 1.5km
   nr= 20        gap= 82       rms=0.75
   Locality: Somogyszob
   Comments:

sta   dist azm  phase  hr mn  sec     res
A264  16.7 181    PgD  15:03:54.39    0.45
                  Sg      03:55.81   -1.12
A263  36.8   2    Pg   15:03:57.30    0.19
                  Sg      04:02.02   -0.54
A265  40.6  72    Pg   15:03:58.09    0.33
                  Sg      04:03.19   -0.52
KOVH  66.9 112    Pg   15:04:03.08    0.78
                  Sg      04:10.12   -1.68
PKS9  81.7  68    Pg   15:04:05.05    0.15
                  Sg      04:17.19    0.76
KOGS  81.8 281    Sg   15:04:14.80   -1.65
PKSV  87.7 122    P*   15:04:06.76    0.81
                  S*      04:18.41    0.11
PKB4 102.8  78    S*   15:04:21.05   -1.36
PKSM 104.4  96    Pn   15:04:09.08    0.61
                  Sn      04:21.41   -1.37
MORH 104.6  96    Sn   15:04:21.79   -1.03
PTJ  112.9 246    Pn   15:04:09.95    0.42
                  Sn      04:24.22   -0.44
PKB5 115.2  74    Sn   15:04:25.33    0.16
```

131.

```
 2019-02-18  time:  9:07:21.65 UTC  ML= 1.1
   lat: 47.570N  lon: 18.414E  h=  0.0 km
                 erh= 5.1km    erz= ***km
   nr=  8        gap=157       rms=0.94
   Locality: Tatabánya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  19.9 185    Sg    9:07:28.21    0.24
CSKK  25.7 207    Pg    9:07:26.90    0.66
                  Sg      07:30.19    0.36
NADP  38.0 156    Sg    9:07:33.58   -0.14
PKST  44.9 220    Pg    9:07:28.42   -1.25
VYHS 107.5  17    Pg    9:07:42.19    1.35
                  Sg      07:54.44   -1.38
PSZ  117.6  71    Sg    9:07:58.40   -0.64
```

132.

```
 2019-02-19  time:  9:34:42.41 UTC  ML= 1.4
   lat: 47.306N  lon: 18.328E  h=  0.0 km
                 erh= 0.9km    erz= 1.3km
   nr=  9        gap=197       rms=0.15
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   8.1 321    Pg    9:34:43.91    0.04
                  Sg      34:44.74   -0.26
PKSG  10.6  26    Pg    9:34:44.38    0.07
                  Sg      34:45.97    0.18
PKST  22.9 257    Pg    9:34:46.41   -0.08
                  Sg      34:49.92    0.24
PSZ  136.0  60    Pn    9:35:06.30   -0.11
VYHS 137.4  16    Pn    9:35:06.57   -0.01
                  Sn      35:22.95   -2.48*
```

133.

```
 2019-02-19  time:  9:47:29.38 UTC  ML= 1.6
   lat: 47.337N  lon: 18.437E  h=  0.0 km
                 erh= 3.6km    erz= 4.8km
   nr=  7        gap=241       rms=0.48
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   7.0 330    Pg    9:47:30.76    0.13
                  Sg      47:31.55   -0.05
CSKK  13.6 282    Pg    9:47:32.07    0.26
                  Sg      47:34.02    0.31
PKST  31.6 254    Pg    9:47:35.26    0.23
                  Sg      47:38.45   -0.99
VYHS 132.0  13    Sn    9:48:09.74   -1.47
```

134.

```
 2019-02-19  time:  9:48:17.12 UTC  ML= 0.9
   lat: 46.182N  lon: 18.273E  h=  0.0 km
                 erh= 1.5km    erz= 270km
   nr=  8        gap=210       rms=0.19
   Locality: Mánfa
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  16.9 232    Pg    9:48:20.04   -0.10
                  Sg      48:23.22    0.72
PKSM  28.6  83    Pg    9:48:22.12   -0.11
                  Sg      48:26.20   -0.02
MORH  28.9  82    Pg    9:48:22.25   -0.03
                  Sg      48:26.65    0.34
PKSV  32.6 183    Pg    9:48:23.02    0.07
```

```
                  Sg      48:27.24   -0.25
```

135.

```
 2019-02-19  time: 10:06:25.39 UTC  ML= 1.8
   lat: 48.628N  lon: 20.741E  h=  0.0 km
                 erh= 5.6km    erz= 3.9km
   nr=  8        gap=169       rms=0.64
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.8 230    Pg   10:06:30.29    0.47
                  Sg      06:33.85    0.57
PSZ  100.9 219    Pg   10:06:43.55    0.15
                  Sg      06:56.57   -0.89
KOLS 117.6  73    Sg   10:07:02.38   -0.38
A336 136.2 251    Sn   10:07:07.16   -0.98
VYHS 141.4 264    Pn   10:06:50.68    0.63
                  Sn      07:08.06   -1.24
```

136.

```
 2019-02-19  time: 10:22:06.07 UTC  ML= 1.1
   lat: 47.217N  lon: 18.280E  h=  0.0 km
                 erh= 1.6km    erz= 244km
   nr=  8        gap=241       rms=0.18
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.3 355    Pg   10:22:09.14    0.15
                  Sg      22:11.08   -0.18
PKST  19.2 284    Pg   10:22:09.28   -0.21
                  Sg      22:11.98   -0.18
PKSG  21.2  23    Pg   10:22:09.90    0.05
                  Sg      22:12.85    0.05
MPLH  56.3 265    Pg   10:22:16.18    0.05
                  Sg      22:24.74    0.76
```

137.

```
 2019-02-20  time:  8:06:01.19 UTC  ML= 0.9
   lat: 47.208N  lon: 18.175E  h=  0.0 km
                 erh= 1.5km    erz= 454km
   nr=  9        gap=136       rms=0.34
   Locality: Bakonykúti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  12.0 298    Pg    8:06:03.58    0.24
                  Sg      06:04.85   -0.17
CSKK  18.4  21    Pg    8:06:04.26   -0.21
                  Sg      06:07.10    0.08
PKSG  26.1  39    Pg    8:06:05.42   -0.43
                  Sg      06:10.14    0.66
MORH 116.0 162    Pg    8:06:22.04    0.13
PKSM 116.4 162    Pg    8:06:22.12    0.15
                  Sg      06:36.48   -1.71
```

138.

```
 2019-02-20  time:  8:14:33.51 UTC  ML= 1.1
   lat: 47.224N  lon: 18.163E  h=  0.0 km
                 erh= 2.8km    erz= 802km
   nr=  8        gap=130       rms=0.57
   Locality: Bakonykúti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  10.5 292    Pg    8:14:35.73    0.35
                  Sg      14:36.88    0.04
CSKK  17.1  26    Pg    8:14:36.53   -0.04
                  Sg      14:39.34    0.38
PKSG  25.4  43    Pg    8:14:37.66   -0.39
PKB1  68.4 136    Pg    8:14:46.95    1.22
MORH 118.0 162    Pg    8:14:53.78   -0.80
PKSM 118.3 162    Pg    8:14:54.30   -0.34
```

139.

```
 2019-02-20  time: 10:11:51.56 UTC  ML= 1.7
   lat: 45.991N  lon: 16.074E  h=  0.3 km
                 erh= 2.0km    erz=78.1km
   nr=  6        gap=310       rms=0.21
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PTJ   13.5 222    Pg   10:11:53.68   -0.30
                  Sg      11:55.58   -0.29
ZAG   19.0 199    Pg   10:11:55.04    0.08
                  Sg      11:57.79    0.18
CRES  51.3 249    Pg   10:12:00.96    0.24
                  Sg      12:07.89    0.02
```

140.

```
 2019-02-20  time: 10:24:34.04 UTC  ML= 0.6
   lat: 47.210N  lon: 18.262E  h=  0.0 km
                 erh= 1.3km    erz= 163km
   nr=  6        gap=262       rms=0.10
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  17.0 360    Pg   10:24:37.16    0.09
                  Sg      24:39.47    0.03
PKST  18.1 287    Pg   10:24:37.31    0.05
                  Sg      24:39.54   -0.24
PKSG  22.4  26    Pg   10:24:37.94   -0.10
                  Sg      24:41.20    0.04
```

141.

```
 2019-02-21  time:  7:28:50.39 UTC  ML= 0.8
   lat: 47.111N  lon: 18.013E  h=  0.0 km
                 erh= 2.8km    erz= 702km
   nr=  5        gap=126       rms=0.31
   Locality: Királyszentistván
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  16.6   6    Pg    7:28:52.86   -0.49
                  Sg      28:55.95    0.29
CSKK  33.8  34    Sg    7:29:01.42    0.29
MPLH  36.5 280    Sg    7:29:02.18    0.18
PKSM 110.9 154    Pg    7:29:10.28    0.08
```

142.

```
 2019-02-21  time:  9:12:44.13 UTC  ML= 1.4
   lat: 47.329N  lon: 18.443E  h=  0.0 km
                 erh= 2.4km    erz= 4.7km
   nr= 10        gap=160       rms=0.46
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.0 331    PgU   9:12:45.53   -0.03
                  Sg      12:46.12   -0.55
CSKK  14.3 285    Pg    9:12:47.14    0.46
                  Sg      12:48.61   -0.05
PKST  31.9 256    Pg    9:12:49.93    0.12
                  Sg      12:53.49   -0.76
MORH 124.7 173    Sg    9:13:23.81    0.05
PKSM 125.1 173    Sg    9:13:23.53   -0.37
VYHS 132.8  13    Pn    9:13:08.30    0.58
```

```
                  Sn      13:24.46   -1.67
```

143.

```
 2019-02-21  time:  9:17:19.72 UTC  ML= 1.5
   lat: 48.684N  lon: 19.946E  h=  0.0 km
                 erh= 3.0km    erz= 6.7km
   nr= 12        gap=101       rms=0.98
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  45.7 119    Pg    9:17:28.73    0.86
                  Sg      17:33.40   -0.83
VYHS  84.6 256    Pg    9:17:35.05    0.23
                  Sg      17:44.74   -1.86
PSZ   85.2 183    Pg    9:17:36.28    1.34
                  Sg      17:45.92   -0.89
NIE   86.0  18    Pg    9:17:35.10    0.02
                  Sg      17:45.30   -1.76
A336  86.1 234    Sg    9:17:46.30   -0.80
ABAH 104.9 114    Pg    9:17:39.12    0.67
                  Sg      17:51.77   -1.29
OJC  171.1 356    Sn    9:18:11.00    0.79
```

144.

```
 2019-02-21  time:  9:32:14.20 UTC  ML= 1.6
   lat: 48.579N  lon: 20.785E  h=  0.0 km
                 erh= 1.5km    erz= 3.4km
   nr= 11        gap= 91       rms=0.43
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.6 244    Pg    9:32:18.49   -0.10
                  Sg      32:22.16    0.15
ABAH  46.0 133    Pg    9:32:22.23   -0.19
                  Sg      32:29.19    0.36
PSZ   98.9 222    Pg    9:32:32.17    0.32
                  Sg      32:45.32   -0.31
NIE   99.6 340    Pg    9:32:32.48    0.50
KOLS 116.3  70    Pg    9:32:35.21    0.25
                  Sg      32:49.96   -1.19
VYHS 144.3 266    Pn    9:32:38.81   -0.41
                  Sn      32:56.78   -1.96
```

145.

```
 2019-02-21  time:  9:54:56.50 UTC  ML= 1.5
   lat: 47.852N  lon: 19.149E  h=  0.0 km
                 erh= 0.9km    erz= 334km
   nr= 10        gap=111       rms=0.26
   Locality: Ősagárd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  12.1 125    Pg    9:54:58.55   -0.10
                  Sg      55:00.21   -0.12
A336  43.8 345    Pg    9:55:04.05   -0.27
                  Sg      55:09.97   -0.45
PSZ   56.2  83    Pg    9:55:06.44   -0.09
                  Sg      55:14.99    0.63
VYHS  75.1 342    Pg    9:55:10.29    0.39
                  Sg      55:20.43    0.08
PKSG  76.7 228    Sg    9:55:20.78   -0.08
CSKK  86.2 231    Pg    9:55:12.02    0.13
```

146.

```
 2019-02-21  time: 10:18:02.28 UTC  ML= 2.2
   lat: 46.979N  lon: 22.237E  h=  0.0 km
                 erh= 1.4km    erz= 1.5km
   nr= 32        gap=124       rms=0.68
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  41.7 120    Pg   10:18:10.45    0.72
                  Sg      18:15.16   -0.38
MARR  75.2 117    PgC  10:18:15.99    0.27
                  Sg      18:25.50   -0.70
SIRR  90.6 209    PgC  10:18:18.34   -0.13
                  Sg      18:29.60   -1.49
CJR  107.9 106    PgD  10:18:21.57    0.02
                  Sg      18:35.20   -1.39
BMR  122.5  51    PgC  10:18:23.70   -0.46
                  Sg      18:39.90   -1.33
TRPA 130.0  10    Pg   10:18:25.13   -0.36
DEV  132.1 157    PnC  10:18:25.59   -0.20
                  Sn      18:40.80   -3.33*
BZS  158.8 198    Pn   10:18:29.74    0.62
                  Sn      18:50.20    0.15
ARCR 161.3  86    Pn   10:18:30.78    1.35
                  Sn      18:51.67    1.07
ABAH 164.5 333    Pn   10:18:29.76   -0.06
GZR  181.1 167    PnC  10:18:32.32    0.42
                  Sn      18:54.90   -0.10
LOT  207.3 145    PnD  10:18:35.62    0.46
                  Sn      19:00.60   -0.20
HERR 233.6 177    PnC  10:18:38.74    0.30
                  Sn      19:06.70    0.05
BURA 236.2  73    PnC  10:18:39.27    0.51
                  Sn      19:07.70    0.48
MDVR 247.6 189    PnD  10:18:40.72    0.53
                  Sn      19:09.10   -0.66
ARR  257.6 134    PnD  10:18:41.57    0.14
                  Sn      19:12.30    0.33
VOIR 276.6 128    PnD  10:18:44.35    0.55
                  Sn      19:16.50    0.32
```

147.

```
 2019-02-21  time: 10:35:15.51 UTC  ML= 2.2
   lat: 45.595N  lon: 17.334E  h= 10.0 km
                 erh= 2.8km    erz= 1.9km
   nr= 18        gap=214       rms=0.51
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  78.6  65    Pg   10:35:29.25   -0.41
                  Sg      35:40.05   -0.64
KOVH  80.9  47    Pg   10:35:30.53    0.46
                  Sg      35:41.89    0.46
BEHE 106.4 336    P*   10:35:34.76    0.25
                  S*      35:48.98   -0.35
PTJ  112.3 288    Pn   10:35:34.99   -0.28
                  Sn      35:49.23   -1.45
PKSM 122.5  56    Pn   10:35:36.79    0.25
                  Sn      35:52.52   -0.42
MORH 122.9  56    Pn   10:35:36.52   -0.07
                  Sn      35:52.59   -0.44
KOGS 126.6 318    Pn   10:35:37.66    0.61
                  Sn      35:53.59   -0.27
CRES 148.4 280    Pn   10:35:40.15    0.38
                  Sn      35:58.89    0.20
GROS 171.4 304    Pn   10:35:41.99   -0.65
PKB1 173.6  40    Pn   10:35:44.45    1.53
```

148.

```
 2019-02-22  time:  9:06:51.91 UTC  ML= 1.6
   lat: 46.031N  lon: 22.823E  h=  0.0 km
                 erh= 6.1km    erz= 5.7km
   nr=  5        gap=199       rms=0.69
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  85.0 354    Pg    9:07:08.04    0.96
                  Sg      07:18.24   -0.68
BZS  104.4 244    Pg    9:07:10.62    0.06
                  Sg      07:24.08   -1.03
ARCR 165.9  45    Sn    9:07:40.96   -0.29
```

149.

```
 2019-02-22  time: 10:51:06.63 UTC  ML= 1.4
   lat: 47.194N  lon: 18.296E  h=  0.0 km
                 erh= 4.1km    erz= 612km
   nr=  7        gap=249       rms=0.40
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  19.0 352    Pg   10:51:09.18   -0.84
                  Sg      51:12.85    0.19
PKST  21.1 290    Pg   10:51:10.24   -0.15
                  Sg      51:13.34    0.02
PKSG  23.1  18    Pg   10:51:10.91    0.15
                  Sg      51:14.31    0.33
MPLH  57.4 267    Pg   10:51:17.30    0.43
```

150.

```
 2019-02-22  time: 18:57:52.86 UTC  ML= 2.2
   lat: 47.665N  lon: 20.320E  h=  8.4 km
                 erh= 2.2km    erz= 1.8km
   nr= 27        gap= 93       rms=0.78
   Locality: Tenk
   Comments: felt 4 EMS

sta   dist azm  phase  hr mn  sec     res
PSZ   42.6 311    Pg   18:58:01.24    0.62
                  Sg      58:07.16    0.50
PENC  79.2 280    Pg   18:58:07.24    0.16
                  Sg      58:17.68   -0.49
PKSN  92.0 202    Sg   18:58:21.46   -0.76
ABAH  98.1  44    Pg   18:58:10.28   -0.17
                  Sg      58:23.61   -0.56
BUD   99.6 258    Pg   18:58:10.42   -0.30
                  Sg      58:22.80   -1.84
PKS7 111.3 232    Pn   18:58:12.04   -0.66
                  Sn      58:25.78   -2.38
A336 117.2 303    Pn   18:58:13.47    0.04
                  Sn      58:28.12   -1.35
NADP 136.1 251    Pn   18:58:16.14    0.35
                  Sn      58:32.98   -0.70
PKB2 137.2 217    Sn   18:58:33.69   -0.21
VYHS 144.0 310    Pn   18:58:16.84    0.07
                  Sn      58:34.77   -0.65
PKSG 148.5 258    Pn   18:58:17.99    0.66
                  Sn      58:35.08   -1.33
PKB1 151.6 230    Pn   18:58:18.01    0.29
CSKK 158.8 258    Sn   18:58:39.37    0.67
PKB5 169.1 225    Pn   18:58:21.59    1.69
                  Sn      58:42.18    1.18
PKST 178.2 255    Pn   18:58:22.61    1.58
DRGR 205.4 118    Pn   18:58:24.40   -0.03
MORH 205.5 218    Pn   18:58:25.29    0.85
```

151.

```
 2019-02-23  time: 12:56:29.04 UTC  ML= 1.4
   lat: 47.378N  lon: 18.205E  h= 10.0 km
                 erh= 1.1km    erz= 0.9km
   nr= 15        gap= 69       rms=0.33
   Locality: Mór
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   4.5 112    PgU  12:56:31.06    0.06
                  Sg      56:32.46   -0.07
PKSG  14.1  84    Pg   12:56:32.02   -0.11
                  Sg      56:34.21   -0.33
PKST  18.5 224    Pg   12:56:32.84    0.04
                  Sg      56:35.74    0.01
NADP  33.9 113    Sg   12:56:40.90    0.61
PNNH  38.7 300    Sg   12:56:41.65   -0.09
SRO   49.1  10    Pg   12:56:37.99    0.01
                  Sg      56:44.85   -0.11
MPLH  55.4 245    Pg   12:56:39.10    0.00
A336 112.1  32    Sn   12:57:02.78   -1.39
VYHS 132.7  21    Pn   12:56:51.98    0.63
                  Sn      57:07.15   -1.60
PKSM 133.9 166    Pn   12:56:51.32   -0.17
```

152.

```
 2019-02-23  time: 12:59:15.47 UTC  ML= 0.1
   lat: 47.304N  lon: 18.252E  h=  4.7 km
                 erh= 9.2km    erz=12.6km
   nr=  6        gap=206       rms=0.17
   Locality: Fehérvárcsurgó
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   6.6   6    Pg   12:59:16.88   -0.05
                  Sg      59:18.08    0.02
PKSG  14.4  47    Pg   12:59:18.47    0.30
                  Sg      59:20.12   -0.16
PKST  17.2 253    Pg   12:59:18.47   -0.19
                  Sg      59:21.21    0.07
```

153.

```
 2019-02-24  time: 13:44:38.82 UTC  ML= 1.4
   lat: 47.402N  lon: 18.445E  h=  5.8 km
                 erh= 2.4km    erz= 1.9km
   nr=  8        gap=265       rms=0.23
   Locality: Csákvár
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSG   4.2 254    Pg   13:44:40.03   -0.06
                  Sg      44:40.89   -0.20
CSKK  14.6 253    Pg   13:44:41.66    0.05
                  Sg      44:43.99    0.20
PKST  34.9 243    Pg   13:44:44.94   -0.18
                  Sg      44:50.08    0.04
PKB1  73.6 159    Pg   13:44:52.40    0.41
                  Sg      45:01.83   -0.44
```

154.

```
 2019-02-24  time: 14:44:33.77 UTC  ML= 1.6
   lat: 48.681N  lon: 19.400E  h=  1.3 km
                 erh= 3.8km    erz= 8.4km
   nr=  9        gap=156       rms=0.95
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
VYHS  46.5 243    Pg   14:44:42.92    0.84
                  Sg      44:48.05   -0.51
```

```
A336  58.0 211    Sg   14:44:51.63   -0.58
KECS  83.1 105    Pg   14:44:49.15    0.54
                  Sg      44:58.81   -1.38
PSZ   92.5 157    Pg   14:44:50.66    0.38
                  Sg      45:01.70   -1.46
NIE  105.8  39    Sg   14:45:05.62   -1.76
ABAH 142.6 107    Pn   14:44:59.51    1.09
```

155.

```
 2019-02-25  time:  0:18:04.41 UTC  ML= 0.3
   lat: 47.314N  lon: 18.321E  h= 10.0 km
                 erh= 3.1km    erz= 2.4km
   nr=  6        gap=223       rms=0.11
   Locality: Söréd
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   7.1 320    Pg    0:18:06.54   -0.06
                  Sg      18:08.15   -0.16
PKSG  10.1  32    Pg    0:18:06.95    0.00
                  Sg      18:09.04    0.11
PKST  22.5 254    Pg    0:18:08.81    0.00
                  Sg      18:12.57    0.32
```

156.

```
 2019-02-25  time:  9:46:15.72 UTC  ML= 2.5
   lat: 48.267N  lon: 21.541E  h=  0.0 km
                 erh= 1.4km    erz= 282km
   nr=  6        gap=177       rms=0.16
   Locality: Sárazsadány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  22.6 278    Pg    9:46:19.78    0.03
                  Sg      46:22.51   -0.39
TRPA  75.8 102    Sg    9:46:39.79   -0.02
KECS  81.8 287    Sg    9:46:42.03    0.32
KOLS  91.7  36    Pg    9:46:32.12    0.03
                  Sg      46:44.80   -0.06
```

157.

```
 2019-02-25  time: 11:03:01.92 UTC  ML= 2.1
   lat: 48.182N  lon: 16.899E  h=  0.0 km
                 erh= 4.0km    erz= 4.7km
   nr=  7        gap=148       rms=0.45
   Locality: Austria
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CONA  82.3 250    Pg   11:03:16.84    0.22
                  Sg      03:27.72   -0.36
KRUC 104.6 339    Sg   11:03:35.61    0.43
VRAC 127.2 350    Sg   11:03:41.91   -0.45
ARSA 146.2 225    Pn   11:03:27.72    0.53
                  Sn      03:46.17   -0.73
VYHS 147.8  76    Sn   11:03:46.69   -0.55
```

158.

```
 2019-02-25  time: 11:10:04.90 UTC  ML= 1.4
   lat: 47.222N  lon: 18.295E  h=  0.0 km
                 erh= 1.4km    erz= 2.7km
   nr= 13        gap= 98       rms=0.47
   Locality: Moha
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  15.9 351    Pg   11:10:07.42   -0.33
                  Sg      10:09.77   -0.20
PKST  20.2 282    Pg   11:10:08.37   -0.13
                  Sg      10:11.14   -0.17
PKSG  20.2  21    Pg   11:10:08.72    0.21
                  Sg      10:11.64    0.31
MPLH  57.6 264    Pg   11:10:15.49    0.31
PKB1  61.6 142    Pg   11:10:16.66    0.77
MORH 115.0 167    Pg   11:10:25.44    0.01
PKSM 115.3 167    Pg   11:10:25.46   -0.03
                  Sg      10:39.60   -1.96
PSZ  143.1  57    Sn   11:10:48.54   -0.64
VYHS 147.1  16    Sn   11:10:48.13   -1.95
```

159.

```
 2019-02-25  time: 12:39:47.88 UTC  ML= 1.7
   lat: 48.368N  lon: 19.864E  h=  0.0 km
                 erh= 3.9km    erz= ***km
   nr=  7        gap=154       rms=0.67
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  47.7  74    Pg   12:39:56.92    0.51
PSZ   50.0 177    Pg   12:39:57.05    0.24
                  Sg      40:03.36   -0.42
A336  65.9 257    Pg   12:40:00.38    0.73
                  Sg      40:08.38   -0.45
VYHS  77.4 280    Sg   12:40:11.26   -1.21
ABAH 102.3  94    Sg   12:40:19.32   -1.07
```

160.

```
 2019-02-26  time:  9:14:30.62 UTC  ML= 1.8
   lat: 47.353N  lon: 18.406E  h=  0.0 km
                 erh= 1.0km    erz= 253km
   nr=  7        gap=138       rms=0.17
   Locality: Gánt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   4.5 345    PgU   9:14:31.45    0.03
                  Sg      14:31.85   -0.19
CSKK  11.0 276    Pg    9:14:32.67    0.08
                  Sg      14:34.44    0.31
NADP  19.2 123    Pg    9:14:34.07    0.02
PKST  30.0 250    Pg    9:14:35.69   -0.28
                  Sg      14:40.34    0.19
```

161.

```
 2019-02-26  time:  9:15:10.48 UTC  ML= 1.8
   lat: 48.558N  lon: 20.778E  h=  0.0 km
                 erh= 3.1km    erz= 6.4km
   nr= 11        gap= 92       rms=0.95
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.2 249    Pg    9:15:13.80   -0.81
                  Sg      15:16.82   -1.02
ABAH  44.9 131    Pg    9:15:19.17    0.67
                  Sg      15:24.40   -0.35
PSZ   96.8 223    Pg    9:15:28.41    0.64
                  Sg      15:41.52    0.27
NIE  101.6 340    Pg    9:15:29.97    1.36
                  Sg      15:41.22   -1.54
KOLS 117.6  69    Pg    9:15:32.13    0.65
                  Sg      15:46.19   -1.66
A336 136.6 255    Sn    9:15:52.41   -0.91
```

162.

2019-02-26 time: 9:25:07.91 UTC ML= 1.7
lat: 47.331N lon: 18.466E h= 0.0 km
erh= 1.9km erz= 396km
nr= 8 gap=214 rms=0.29
Locality: Lovasberény
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	8.8	320	Pg	9:25:09.55	0.07
			Sg	25:10.35	-0.36
CSKK	15.9	283	Pg	9:25:10.92	0.16
			Sg	25:12.61	-0.37
PKST	33.6	256	Pg	9:25:14.34	0.42
			Sg	25:18.19	-0.41
MORH	124.7	174	Sg	9:25:47.27	-0.29
PKSM	125.2	174	Sg	9:25:47.79	0.10

163.

2019-02-26 time: 10:49:49.31 UTC ML= 0.6
lat: 47.211N lon: 18.276E h= 0.0 km
erh= 0.8km erz= 103km
nr= 5 gap=263 rms=0.05
Locality: Iszkaszentgyörgy
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	17.0	356	Sg	10:49:54.67	-0.03
PKST	19.0	286	Pg	10:49:52.66	-0.05
			Sg	49:55.40	0.04
PKSG	21.9	23	Pg	10:49:53.28	0.06
			Sg	49:56.23	-0.04

164.

2019-02-27 time: 9:22:39.07 UTC ML= 2.6
lat: 46.374N lon: 21.546E h= 2.8 km
erh= 1.7km erz= 1.7km
nr= 52 gap= 41 rms=1.04
Locality: Romania
Comments:

sta	dist	azm	phase	hr mn sec	res
SIRR	14.7	144	PgD	9:22:43.15	1.40
			Sg	22:45.70	1.86
AMBH	63.2	268	Pg	9:22:49.73	-0.64
			Sg	22:56.96	-2.22
BORR	81.7	13	PgC	9:22:53.47	-0.20
SURR	82.2	147	PgC	9:22:54.04	0.28
			Sg	23:04.30	-0.92
BZS	84.4	176	Pg	9:22:54.00	-0.15
			Sg	23:03.76	-2.15
DRGR	100.6	63	Pg	9:22:57.18	0.13
			Sg	23:08.88	-2.20
BANR	114.7	196	Sg	9:23:14.20	-1.36
DEV	118.2	117	PgC	9:23:00.71	0.52
			Sg	23:15.60	-1.07
MARR	125.2	74	PnD	9:23:00.77	-0.60
MESR	137.6	51	PnC	9:23:02.85	-0.05
			Sn	23:19.50	-1.99
PKSN	141.1	294	Sn	9:23:20.53	-1.74
GZR	144.9	139	PnC	9:23:04.24	0.42
			Sn	23:22.80	-0.32
PKS6	154.2	279	Pn	9:23:04.79	-0.19
			Sn	23:23.77	-1.41
CJR	161.9	77	PnC	9:23:06.85	0.92
			Sn	23:26.40	-0.48
MDVR	177.5	176	PnD	9:23:07.91	0.03
HERR	179.3	158	PnC	9:23:08.00	-0.10
			Sn	23:30.50	-0.25
PKS2	179.8	274	Pn	9:23:09.39	1.22
			Sn	23:30.88	0.02
PKB2	179.9	281	Pn	9:23:09.16	0.98
			Sn	23:30.10	-0.79
PKB3	180.9	272	Pn	9:23:09.56	1.25
			Sn	23:29.80	-1.31
FRGS	192.9	224	Pn	9:23:10.53	0.73
PKS7	197.2	292	Sn	9:23:35.90	1.19
LOT	200.9	121	Sn	9:23:35.30	-0.24
PSZ	212.5	324	PnC	9:23:10.12	-2.13
ABAH	214.9	354	Pn	9:23:13.26	0.71
			Sn	23:39.16	0.51
PKB5	217.2	276	Pn	9:23:14.73	1.90
			Sn	23:40.04	0.88
MDB	220.1	97	Sn	9:23:39.80	0.00
MORH	224.3	265	Pn	9:23:15.51	1.79
			Sn	23:40.62	-0.12
PKSM	224.6	265	Pn	9:23:15.16	1.41
			Sn	23:40.82	0.02
TNR	225.9	111	PnC	9:23:14.49	0.57
			Sn	23:41.90	0.80
PKB4	226.5	273	Sn	9:23:42.55	1.31
ARR	264.6	115	PnC	9:23:19.93	1.19
VOIR	291.1	111	PnC	9:23:23.07	1.02
			Sn	23:56.40	0.83
BLKB	318.5	164	Sn	9:24:01.20	-0.44*

165.

2019-02-27 time: 10:26:52.22 UTC ML= 1.1
lat: 47.207N lon: 18.291E h= 0.0 km
erh= 3.0km erz= 365km
nr= 6 gap=267 rms=0.22
Locality: Iszkaszentgyörgy
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	17.5	352	Pg	10:26:55.41	0.06
			Sg	26:57.24	-0.55
PKST	20.3	287	Pg	10:26:55.96	0.12
			Sg	26:58.62	-0.05
PKSG	21.9	20	Pg	10:26:55.98	-0.15
			Sg	26:59.57	0.39

166.

2019-02-27 time: 19:39:53.43 UTC ML= 1.1
lat: 46.819N lon: 18.541E h= 14.0 km
erh= 1.9km erz= 4.9km
nr= 15 gap=104 rms=0.53
Locality: Mezőszilas
Comments:

sta	dist	azm	phase	hr mn sec	res
A267	14.8	342	Pg	19:39:57.03	-0.04
PKB1	19.5	101	Pg	19:39:58.12	0.39
PKB5	29.0	149	Pg	19:39:59.58	0.39
			Sg	40:03.44	-0.24
PKS9	32.7	218	Pg	19:40:00.11	0.32
			Sg	40:04.48	-0.26
PKB4	36.2	172	Pg	19:40:01.17	0.80
			Sg	40:05.70	-0.08
NADP	49.1	7	Sg	19:40:08.52	-1.13
PKB2	55.9	107	Sg	19:40:11.48	-0.27
PKST	62.2	322	Pg	19:40:04.93	0.11
MORH	67.5	173	Pg	19:40:05.67	-0.08
			Sg	40:13.63	-1.73
PKSM	68.0	174	Pg	19:40:05.71	-0.11
			Sg	40:13.80	-1.69

167.

2019-02-28 time: 9:42:37.17 UTC ML= 1.8
lat: 48.308N lon: 21.576E h= 0.0 km
erh= 6.0km erz= ***km
nr= 5 gap=162 rms=0.60
Locality: Sárospatak
Comments: probably explosion

```
sta   dist azm  phase  hr mn  sec     res
ABAH  25.0 267    Pg    9:42:42.17    0.54
                  Sg      42:43.78   -1.32
TRPA  74.3 105    Sg    9:43:00.54   -0.23
KECS  83.1 284    Sg    9:43:03.85    0.29
KOLS  86.5  36    Sg    9:43:04.56   -0.10
```

168.

```
 2019-02-28  time: 10:33:18.70 UTC  ML= 1.6
   lat: 48.576N  lon: 20.776E  h=  0.0 km
                 erh= 1.4km    erz= 2.8km
   nr= 10        gap=152       rms=0.36
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.8 244    Pg   10:33:23.31    0.37
                  Sg      33:26.43    0.17
ABAH  46.3 132    Pg   10:33:27.03    0.06
                  Sg      33:32.90   -0.53
PSZ   98.1 222    Pg   10:33:36.52    0.30
                  Sg      33:49.52   -0.37
NIE   99.7 340    Pg   10:33:36.82    0.33
LANS 115.3 304    Pg   10:33:38.83   -0.46
VYHS 143.5 266    Pn   10:33:43.47   -0.16
                  Sn      34:01.85   -1.22
```

169.

```
 2019-02-28  time: 11:08:03.84 UTC  ML= 2.0
   lat: 45.629N  lon: 17.329E  h= 10.0 km
                 erh= 3.0km    erz= 2.3km
   nr= 12        gap=118       rms=0.56
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  77.4  68    Pg   11:08:17.70   -0.08
                  Sg      08:28.28   -0.37
KOVH  78.7  50    Pg   11:08:18.19    0.19
                  Sg      08:28.55   -0.50
BLY   98.5 187    Pg   11:08:21.56    0.04
                  Sg      08:33.84   -1.47
PKSM 120.7  58    Pn   11:08:24.84    0.20
                  Sn      08:40.79   -0.08
MORH 121.1  57    Pn   11:08:25.17    0.47
                  Sn      08:41.02    0.06
KOGS 123.5 317    Sn   11:08:40.18   -1.31
GROS 168.9 303    Pn   11:08:31.86    1.20
```

170.

```
 2019-02-28  time: 11:09:15.72 UTC  ML= 1.7
   lat: 45.574N  lon: 17.406E  h= 12.2 km
                 erh= 2.0km    erz= 1.4km
   nr= 12        gap=129       rms=0.35
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  74.5  62    Pg   11:09:29.60    0.39
                  Sg      09:38.99   -0.74
KOVH  78.5  43    Pg   11:09:29.75   -0.17
                  Sg      09:41.15    0.16
BLY   93.4 191    P*   11:09:32.41   -0.12
PKSM 119.2  54    Pn   11:09:35.93   -0.13
                  Sn      09:52.00    0.08
MORH 119.6  53    Pn   11:09:35.88   -0.23
                  Sn      09:52.35    0.33
KOGS 132.1 317    Sn   11:09:52.50   -2.29*
GROS 177.4 304    Pn   11:09:44.01    0.69
                  Sn      10:04.65   -0.19
```

171.

```
 2019-02-28  time: 15:48:51.34 UTC  ML= 2.0
   lat: 46.098N  lon: 21.699E  h= 10.0 km
                 erh= 7.0km    erz=10.5km
   nr=  5        gap=142       rms=0.56
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
BZS   53.9 187    Pg   15:49:01.28    0.16
                  Sg      49:08.21   -0.55
DRGR 109.5  45    Pn   15:49:11.33    0.58
                  Sn      49:24.60   -1.28
PKSN 166.3 302    Pn   15:49:17.86    0.03
```

172.

```
 2019-03-01  time:  9:45:39.17 UTC  ML= 1.1
   lat: 47.178N  lon: 18.302E  h=  0.0 km
                 erh= 1.3km    erz= 172km
   nr=  6        gap=278       rms=0.10
   Locality: Sárkeszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  20.8 351    Pg    9:45:43.03    0.15
                  Sg      45:45.86    0.08
PKST  22.2 294    Pg    9:45:43.06   -0.07
                  Sg      45:46.18   -0.04
PKSG  24.7  16    Pg    9:45:43.56   -0.01
                  Sg      45:46.83   -0.18
```

173.

```
 2019-03-01  time:  9:54:43.48 UTC  ML= 1.7
   lat: 47.871N  lon: 19.190E  h=  0.0 km
                 erh= 1.8km    erz= 333km
   nr=  5        gap=198       rms=0.16
   Locality: Ősagárd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  11.3 142    Pg    9:54:45.60    0.11
                  Sg      54:46.70   -0.35
A336  42.7 341    Pg    9:54:51.12    0.01
                  Sg      54:56.92   -0.14
PSZ   53.0  84    Sg    9:55:00.48    0.17
```

174.

```
 2019-03-01  time: 10:17:12.64 UTC  ML= 2.0
   lat: 47.686N  lon: 18.558E  h=  0.0 km
                 erh= 2.7km    erz= ***km
   nr= 14        gap= 56       rms=1.18
   Locality: Nagysáp
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
SRO   23.2 308    Sg   10:17:19.57   -0.44
PKSG  35.1 201    Sg   10:17:23.96    0.17
A338  39.7 337    Pg   10:17:22.49    2.76
BUD   41.6 123    Sg   10:17:25.63   -0.24
CSKK  42.3 212    Sg   10:17:25.82   -0.28
NADP  47.9 175    Sg   10:17:27.95    0.10
PENC  55.5  78    Sg   10:17:30.20   -0.07
PKST  61.8 220    Sg   10:17:33.21    0.94
A336  69.2  28    Sg   10:17:33.00   -1.62
VYHS  92.2  13    Sg   10:17:42.01    0.07
MPLH  95.9 233    Sg   10:17:41.48   -1.65
EGYH  97.0 252    Sg   10:17:42.35   -1.13
MODS 122.4 309   ePg   10:17:34.90    0.41
                 eSg      17:50.00   -1.53
```

175.

```
 2019-03-01  time: 10:34:13.36 UTC  ML= 1.3
   lat: 47.327N  lon: 18.399E  h=  0.0 km
                 erh= 1.6km    erz= 3.7km
   nr=  9        gap=157       rms=0.38
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   7.2 355    PgU  10:34:14.78    0.14
                  Sg      34:15.24   -0.40
CSKK  11.2 291    Sg   10:34:16.38   -0.54
PKST  28.6 255    Pg   10:34:19.01    0.54
                  Sg      34:22.69    0.24
MORH 125.0 171    Sg   10:34:53.07   -0.01
PKSM 125.4 172    Sg   10:34:52.76   -0.45
VYHS 133.8  14   ePn   10:34:37.00   -0.07
                 eSn      34:54.30   -1.27
```

176.

```
 2019-03-02  time:  7:16:03.92 UTC  ML= 1.6
   lat: 46.368N  lon: 21.514E  h= 10.0 km
                 erh= 5.4km    erz= 3.9km
   nr= 12        gap=155       rms=1.26
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
SIRR  15.8 135    PgC   7:16:08.26    0.99
                  Sg      16:10.60    0.72
AMBH  60.7 268    Sg    7:16:22.29   -1.19
BZS   83.9 175    Pg    7:16:18.95   -0.06
                  Sg      16:29.15   -1.63
DRGR 103.1  63    P*    7:16:22.42    0.00
                  S*      16:34.67   -2.18
MARR 127.8  74    PnC   7:16:26.93    1.32
                  Sn      16:40.90   -1.63
GZR  146.1 138    PnD   7:16:29.80    1.90
                  Sn      16:45.00   -1.60
MDVR 177.0 175    Sn    7:16:54.60    1.14
```

177.

```
 2019-03-04  time:  7:29:39.96 UTC  ML= 0.9
   lat: 47.235N  lon: 18.159E  h=  0.0 km
                 erh= 1.1km    erz= 373km
   nr=  9        gap=124       rms=0.28
   Locality: Bakonykúti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST   9.8 286    Pg    7:29:41.80    0.09
                  Sg      29:43.02   -0.05
CSKK  16.2  28    Pg    7:29:42.59   -0.26
                  Sg      29:45.22    0.11
PKSG  24.7  45    Pg    7:29:44.47    0.09
                  Sg      29:47.79   -0.03
PKB5  83.6 148    Pg    7:29:54.72   -0.17
                  Sg      30:07.18    0.64
PKSM 119.6 162    Sg    7:30:15.58   -2.39*
```

178.

```
 2019-03-04  time:  7:32:31.69 UTC  ML= 0.8
   lat: 47.196N  lon: 18.198E  h=  0.0 km
                 erh= 2.4km    erz= 694km
   nr=  8        gap=137       rms=0.49
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  14.2 299    Pg    7:32:34.21   -0.02
                  Sg      32:36.49    0.28
CSKK  19.2  14    Pg    7:32:34.83   -0.28
                  Sg      32:37.76   -0.02
PKSG  26.2  34    Pg    7:32:36.02   -0.35
                  Sg      32:40.96    0.94
PKSM 114.6 163    Pg    7:32:52.68    0.53
                  Sg      33:06.73   -1.38
```

179.

```
 2019-03-04  time:  8:53:16.52 UTC  ML= 1.6
   lat: 48.658N  lon: 20.759E  h=  0.0 km
                 erh= 2.8km    erz= 3.6km
   nr=  8        gap=172       rms=0.45
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  28.0 226    Pg    8:53:21.79    0.26
                  Sg      53:24.72   -0.71
ABAH  53.7 139    Pg    8:53:25.78   -0.33
                  Sg      53:33.33   -0.25
PSZ  104.3 218    Pg    8:53:35.84    0.69
KOLS 115.4  75    Sg    8:53:53.39    0.20
VYHS 143.1 263    Pn    8:53:41.49    0.09
                  Sn      53:59.97   -0.83
```

180.

```
 2019-03-04  time: 10:43:58.48 UTC  ML= 1.8
   lat: 47.294N  lon: 18.420E  h=  0.0 km
                 erh= 2.4km    erz= 603km
   nr=  7        gap=183       rms=0.88
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  11.1 348    PgU  10:44:00.00   -0.46
                  Sg      44:00.60   -1.40
CSKK  14.3 302    Pg   10:44:01.19    0.16
                  Sg      44:01.91   -1.11
PKST  29.5 262    Sg   10:44:08.76    0.92
MORH 121.1 172    Sg   10:44:37.68    0.72
PKSM 121.5 172    Sg   10:44:38.57    1.48
```

181.

```
 2019-03-04  time: 11:00:31.69 UTC  ML= 2.1
   lat: 48.176N  lon: 16.867E  h=  0.0 km
                 erh= 5.0km    erz= 4.4km
   nr=  8        gap=233       rms=0.50
   Locality: Austria
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CONA  79.9 250    Pg   11:00:45.99    0.03
                  Sg      00:56.89   -0.19
KRUC 104.4 341    Pg   11:00:51.14    0.80
                  Sg      01:04.67   -0.21
VRAC 127.5 351    Pg   11:00:54.38   -0.07
                  Sg      01:10.55   -1.66
ARSA 144.1 224    Pn   11:00:56.74    0.04
                  Sn      01:15.62   -0.58
```

182.

```
 2019-03-04  time: 11:54:14.64 UTC  ML= 1.4
   lat: 46.109N  lon: 17.973E  h=  0.0 km
                 erh= 3.9km    erz= 451km
   nr=  7        gap=269       rms=0.30
   Locality: Dinnyeberki
   Comments: probably explosion
```

sta	dist	azm	phase	hr mn sec	res
KOVH	10.1	103	Pg	11:54:16.58	0.15
			Sg	54:17.78	-0.06
PKSV	32.7	139	Sg	11:54:25.21	0.19
PKSM	52.9	77	Pg	11:54:24.01	-0.07
			Sg	54:30.26	-1.19
MORH	53.2	77	Pg	11:54:23.98	-0.15
PKB5	79.8	47	Sg	11:54:40.48	0.48

183.

2019-03-04 time: 12:45:45.43 UTC ML= 1.2
lat: 47.182N lon: 18.309E h= 0.0 km
erh= 0.7km erz= 134km
nr= 7 gap=222 rms=0.09
Locality: Székesfehérvár
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	20.5	350	Pg	12:45:49.20	0.12
			Sg	45:51.76	-0.17
PKST	22.5	292	Pg	12:45:49.42	-0.03
			Sg	45:52.56	-0.02
PKSG	24.1	15	Pg	12:45:49.80	0.06
			Sg	45:53.17	0.08
NADP	24.8	70	Pg	12:45:49.76	-0.10

184.

2019-03-04 time: 21:46:13.73 UTC ML= 1.7
lat: 47.534N lon: 18.942E h= 11.6 km
erh= 1.1km erz= 0.8km
nr= 30 gap= 85 rms=0.47
Locality: Budakeszi
Comments:

sta	dist	azm	phase	hr mn sec	res
BUD	8.3	132	Pg	21:46:16.48	0.21
			Sg	46:17.90	-0.35
A270	35.1	9	Pg	21:46:20.52	0.19
PENC	38.3	42	PgD	21:46:20.85	-0.02
			Sg	46:25.87	-0.57
NADP	39.3	219	Pg	21:46:21.37	0.33
			Sg	46:26.69	-0.05
PKSG	44.5	249	Pg	21:46:22.05	0.11
			Sg	46:27.89	-0.45
CSKK	54.8	250	PgU	21:46:23.70	-0.03
SRO	56.5	303	eSg	21:46:32.10	0.02
A338	69.4	320	Pg	21:46:26.76	0.46
PKST	75.0	246	Pg	21:46:27.41	0.12
A336	77.9	3	Pg	21:46:27.51	-0.28
			Sg	46:36.37	-2.39
PKB1	84.1	188	Sg	21:46:40.79	0.09
PKB2	98.2	167	P*	21:46:31.56	0.23
			S*	46:43.87	-1.19
PKB5	105.5	189	Pn	21:46:32.94	0.50
			Sn	46:46.02	-1.01
TIH	106.2	228	Pn	21:46:32.02	-0.50
VYHS	107.1	356	Pn	21:46:32.40	-0.23
			Sn	46:44.27	-3.11*
PKS2	117.6	170	Sn	21:46:50.36	0.64
PKB4	118.2	193	Sn	21:46:49.80	-0.04
PKB3	124.9	171	Sn	21:46:51.82	0.49
MORH	148.3	189	Pn	21:46:37.80	0.03
PKSM	148.7	189	Pn	21:46:37.83	0.01
KECS	156.2	47	ePn	21:46:40.30	1.54
KOVH	173.1	202	Pn	21:46:40.91	0.05
			Sn	47:00.77	-1.25

185.

2019-03-05 time: 9:51:26.17 UTC ML= 1.7
lat: 48.516N lon: 17.473E h= 0.0 km
erh= 5.2km erz= 9.4km
nr= 7 gap=150 rms=0.75
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
SMOL	3.3	266	Pg	9:51:26.70	-0.06
			Sg	51:27.51	0.29
KRUC	99.8	307	Sg	9:51:58.08	0.19
VYHS	100.8	91	Pg	9:51:45.18	1.02
			Sg	51:56.33	-1.87
VRAC	109.2	324	Sg	9:51:59.99	-0.89
CONA	136.4	241	Pn	9:51:50.10	-0.12

186.

2019-03-05 time: 9:54:58.25 UTC ML= 1.4
lat: 47.515N lon: 18.557E h= 0.0 km
erh= 7.3km erz= 7.8km
nr= 9 gap=167 rms=0.56
Locality: Nagyegyháza
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	18.6	222	Pg	9:55:02.24	0.66
			Sg	55:05.29	1.12
CSKK	28.1	233	Pg	9:55:03.25	-0.01
			Sg	55:07.27	0.10
PKST	48.7	234	Pg	9:55:06.40	-0.55
			Sg	55:13.19	-0.54
VYHS	110.8	11	Pg	9:55:18.17	0.14
PKSM	145.1	177	Pn	9:55:23.16	-0.22
			Sn	55:41.23	-1.74

187.

2019-03-05 time: 10:02:28.99 UTC ML= 1.9
lat: 48.588N lon: 20.771E h= 0.0 km
erh= 2.6km erz= 2.7km
nr= 7 gap=227 rms=0.45
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	24.1	241	Pg	10:02:33.53	0.24
			Sg	02:36.68	0.04
ABAH	47.5	133	Sg	10:02:43.67	-0.42
PSZ	98.9	221	Pg	10:02:47.14	0.49
			Sg	02:59.84	-0.58
VYHS	143.2	266	Pn	10:02:53.92	0.03
			Sn	03:12.03	-1.27

188.

2019-03-06 time: 8:15:02.19 UTC ML= 0.8
lat: 48.442N lon: 19.120E h= 0.0 km
erh= 1.7km erz= 485km
nr= 7 gap=162 rms=0.33
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
VYHS	21.8	285	Pg	8:15:05.92	-0.15
			Sg	15:09.33	0.23
A336	24.9	201	Pg	8:15:06.57	-0.06
			Sg	15:09.58	-0.52
PENC	73.5	171	Sg	8:15:25.95	0.41
KECS	101.1	87	ePg	8:15:20.60	0.36
			eSg	15:33.40	-0.93

189.

2019-03-06 time: 8:16:54.21 UTC ML= 0.9
lat: 47.128N lon: 17.962E h= 13.8 km
erh= 2.0km erz= 2.2km
nr= 11 gap=125 rms=0.41
Locality: Kádárta
Comments:

sta	dist	azm	phase	hr mn sec	res
PKST	15.5	21	Pg	8:16:56.98	-0.94
			Sg	17:00.55	-0.26
MPLH	32.4	278	Pg	8:17:00.72	0.22
			Sg	17:05.39	-0.02
CSKK	34.5	41	Pg	8:17:01.15	0.30
			Sg	17:06.32	0.30
PKSG	43.7	48	Pg	8:17:02.84	0.45
			Sg	17:08.52	-0.25
PKB5	83.6	135	Sg	8:17:21.23	0.09
MORH	114.0	153	Sn	8:17:28.93	0.02
PKSM	114.3	153	Sn	8:17:28.55	-0.43

190.

2019-03-06 time: 10:56:15.45 UTC ML= 1.6
lat: 48.607N lon: 20.757E h= 0.0 km
erh= 2.2km erz= 2.7km
nr= 13 gap=129 rms=0.61
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	24.3	236	Pg	10:56:20.13	0.35
			Sg	56:22.87	-0.29
ABAH	49.7	134	Pg	10:56:24.55	0.23
			Sg	56:31.25	0.00
PSZ	99.8	220	Pg	10:56:33.01	-0.26
			Sg	56:46.72	-0.44
LANS	112.2	303	ePg	10:56:35.70	0.21
			eSg	56:50.10	-1.02
KOLS	117.3	72	Sg	10:56:51.84	-0.88
A336	136.6	252	Sn	10:56:57.76	-0.52
TRPA	142.3	112	Pn	10:56:42.30	2.07
VYHS	142.3	265	Pn	10:56:40.59	0.36
			Sn	56:58.82	-0.74

191.

2019-03-06 time: 11:25:56.47 UTC ML= 2.0
lat: 48.320N lon: 21.295E h= 0.0 km
erh= 4.7km erz= ***km
nr= 7 gap=135 rms=0.86
Locality: Sima
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
ABAH	4.9	238	Pg	11:25:57.95	0.60
			Sg	25:59.00	0.96
KECS	62.7	287	Pg	11:26:08.04	0.38
			Sg	26:15.87	-0.52
TRPA	94.8	103	Sg	11:26:26.19	-0.41
KOLS	99.2	47	Sg	11:26:27.30	-0.72
PSZ	113.5	247	Sg	11:26:29.86	-2.68

192.

2019-03-06 time: 11:55:15.34 UTC ML= 0.6
lat: 47.220N lon: 18.258E h= 0.0 km
erh= 1.7km erz= 347km
nr= 7 gap=203 rms=0.23
Locality: Iszkaszentgyörgy
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	15.9	1	Pg	11:55:18.25	0.07
			Sg	55:20.39	-0.01
PKST	17.5	284	Pg	11:55:18.21	-0.25
			Sg	55:21.81	0.91
PKSG	21.6	28	Pg	11:55:19.21	0.01
			Sg	55:22.05	-0.15
NADP	27.6	81	Sg	11:55:24.27	0.17

193.

2019-03-07 time: 8:30:47.41 UTC ML= 1.6
lat: 46.917N lon: 22.816E h= 0.0 km
erh= 4.4km erz= 3.7km
nr= 15 gap=110 rms=1.05
Locality: Romania
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
DRGR	16.1	210	Pg	8:30:50.36	0.09
			Sg	30:53.56	1.05
MARR	35.4	139	PgC	8:30:53.17	-0.55
			Sg	30:57.20	-1.45
GZR	169.4	181	PnC	8:31:16.80	1.24
			Sn	31:36.70	-0.82
BZS	171.6	213	Pn	8:31:14.75	-1.08
			Sn	31:38.07	0.06
LOT	179.1	156	PnC	8:31:17.62	0.85
			Sn	31:39.30	-0.38
ABAH	193.8	322	Sn	8:31:40.79	-2.16
BURA	197.6	67	PnC	8:31:21.23	2.16
			Sn	31:44.80	1.03
VOIR	238.3	134	PnC	8:31:25.43	1.27
			Sn	31:51.70	-1.12

194.

2019-03-07 time: 9:18:27.60 UTC ML= 1.8
lat: 47.349N lon: 18.427E h= 0.0 km
erh= 2.1km erz= 4.0km
nr= 10 gap=112 rms=0.70
Locality: Gánt
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.5	330	Pg	9:18:28.99	0.40
			Sg	18:29.41	0.05
CSKK	12.7	277	Pg	9:18:30.27	0.40
			Sg	18:31.94	0.30
NADP	17.6	125	Sg	9:18:34.63	1.44
PKST	31.3	251	Sg	9:18:37.24	-0.32
MORH	127.0	173	Sg	9:19:07.22	-0.75
PKSM	127.4	173	Sg	9:19:06.88	-1.22
VYHS	131.0	13	Pn	9:18:50.85	-0.12
			Sn	19:07.57	-1.62

195.

2019-03-07 time: 10:04:58.75 UTC ML= 1.4
lat: 47.855N lon: 19.156E h= 0.0 km
erh= 5.9km erz= 293km
nr= 6 gap=214 rms=0.18
Locality: ősagárd
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	11.8	128	Pg	10:05:00.83	-0.03
			Sg	05:02.37	-0.14
A336	43.6	344	Pg	10:05:06.72	0.18
			Sg	05:12.74	0.13
VYHS	74.9	341	Pg	10:05:12.13	0.01
			Sg	05:21.97	-0.59

196.

2019-03-07 time: 10:26:17.10 UTC ML= 1.2
lat: 46.106N lon: 18.024E h= 0.0 km
erh= 3.0km erz= 539km
nr= 10 gap=261 rms=0.43
Locality: Bükkösd
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	6.2	109	Pg	10:26:18.43	0.22
			Sg	26:19.78	0.70
PKSV	30.0	144	Pg	10:26:22.62	0.16
			Sg	26:26.71	0.08
PKSM	49.1	76	Pg	10:26:25.66	-0.21
			Sg	26:31.81	-0.91
MORH	49.4	76	Pg	10:26:25.66	-0.27
			Sg	26:32.13	-0.69
PKB5	77.2	45	Pg	10:26:30.93	0.05
			Sg	26:42.68	1.05

197.

2019-03-07 time: 11:21:01.84 UTC ML= 1.2
lat: 46.136N lon: 18.003E h= 0.0 km
erh= 0.7km erz= 102km
nr= 8 gap=295 rms=0.07
Locality: Hetvehely
Comments: probably explosion

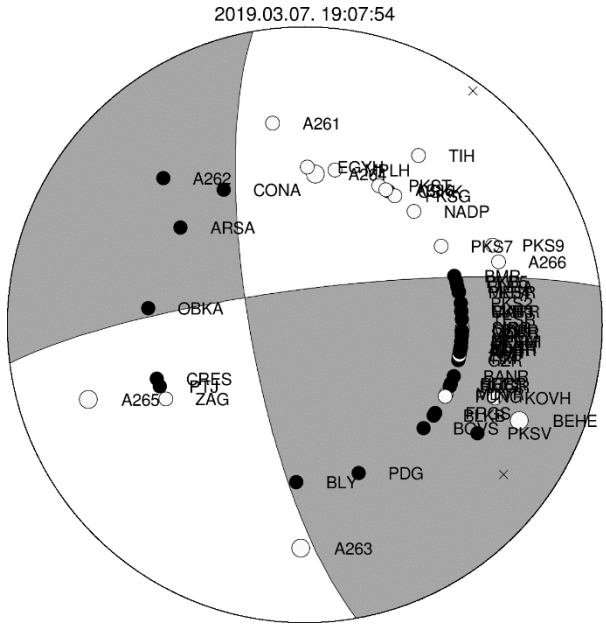
sta	dist	azm	phase	hr mn sec	res
KOVH	9.2	125	Pg	11:21:03.40	-0.08
			Sg	21:04.86	0.10
PKSV	33.6	145	Pg	11:21:07.89	0.05
			Sg	21:12.19	-0.34
PKSM	50.0	80	Pg	11:21:10.78	0.01
			Sg	21:17.79	0.06
MORH	50.3	80	Pg	11:21:10.81	-0.01
			Sg	21:17.79	-0.03

198.

2019-03-07 time: 19:07:54.24 UTC ML= 4.0
lat: 46.306N lon: 17.303E h= 17.9 km
erh= 0.9km erz= 0.8km
nr= 76 gap= 59 rms=0.50
Locality: Somogyszob
Comments: felt 5 EMS

sta	dist	azm	phase	hr mn sec	res
A264	16.3	184	PgD	19:07:58.53	-0.04
A263	37.2	1	PgD	19:08:00.98	-0.63
A265	40.1	71	PgD	19:08:02.23	0.14
BEHE	44.5	294	PgD	19:08:02.56	-0.24
			Sg	08:08.82	-0.66
KOVH	66.1	111	P*D	19:08:06.12	-0.25
			S*	08:14.26	-1.56
A261	72.7	351	P*D	19:08:06.78	-0.59
A266	77.9	72	P*D	19:08:08.25	0.10
TIH	80.0	34	P*D	19:08:08.08	-0.40
PKS9	81.2	67	P*D	19:08:08.69	0.02
			S*	08:20.18	0.26
KOGS	82.5	281	iP*	19:08:08.35	-0.51
			iS*	08:18.74	-1.52
A262	85.9	316	P*U	19:08:10.31	0.94
PKSV	86.9	122	P*U	19:08:09.86	0.34
MPLH	97.7	11	PnD	19:08:10.60	-0.57
			Sn	08:24.04	-0.33
PKB4	102.3	78	PnD	19:08:11.95	0.22
			Sn	08:24.88	-0.50
PKSM	103.7	96	PnU	19:08:11.92	0.00
			Sn	08:25.24	-0.46
MORH	103.9	96	PnU	19:08:11.94	0.00
			Sn	08:25.16	-0.58
PTJ	113.4	247	PnU	19:08:12.89	-0.23
			Sn	08:27.33	-0.51
ZAG	114.3	242	PnD	19:08:13.87	0.63
			Sn	08:28.02	-0.03
PKB5	114.7	74	PnU	19:08:13.00	-0.28
			Sn	08:27.50	-0.63
A267	115.0	52	Pn	19:08:13.68	0.36
PKST	119.7	28	PnD	19:08:14.26	0.35
			Sn	08:29.19	-0.07
EGYH	123.5	1	PnD	19:08:15.84	1.46
			Sn	08:32.61	2.52*
PKB1	126.0	65	Pn	19:08:14.52	-0.17
A268	133.7	21	Pn	19:08:16.13	0.47
CSKK	138.4	32	PnU	19:08:16.87	0.64
NADP	145.8	44	PnD	19:08:17.19	0.02
			Sn	08:34.13	-0.92
PKB3	146.2	85	PnU	19:08:17.12	-0.09
			Sn	08:35.08	-0.05
PKSG	146.4	35	PnD	19:08:17.57	0.33
PKS2	148.4	82	PnU	19:08:17.49	0.01
CRES	152.5	250	PnU	19:08:17.93	-0.06
PKB2	154.4	75	Pn	19:08:18.11	-0.12
SOP	163.2	340	Pn	19:08:19.53	0.20
PKS7	164.3	60	PnD	19:08:19.30	-0.17
A339	171.4	9	Pn	19:08:21.98	1.62
ARSA	171.7	308	PnU	19:08:20.75	0.36
RONA	172.8	334	Pn	19:08:21.01	0.48
			Sn	08:40.24	-0.79
BLY	173.4	183	PnU	19:08:21.39	0.79
PKS6	176.8	79	Pn	19:08:20.93	-0.10
SOKA	179.1	283	Pn	19:08:21.23	-0.09
			Sn	08:41.31	-1.13
BOJS	182.4	241	iPn	19:08:21.75	0.02
SRO	184.3	25	Pn	19:08:22.83	0.87
BUD	185.3	45	Pn	19:08:21.86	-0.23
VISS	198.7	254	iPn	19:08:23.70	-0.05
			iSn	08:45.31	-1.47
VNDS	202.1	264	iPn	19:08:24.11	-0.07
A338	206.0	23	Pn	19:08:25.69	1.02
PKSN	207.2	72	Pn	19:08:24.73	-0.09
CONA	210.9	329	PnU	19:08:25.71	0.43
OBKA	213.0	276	PnU	19:08:25.36	-0.18
PENC	223.2	42	Pn	19:08:27.40	0.58
MODS	229.9	360	ePn	19:08:27.90	0.26
FRGS	234.6	124	PnU	19:08:28.76	0.52
A336	249.7	31	PnD	19:08:30.83	0.71
AMBH	263.6	89	Pn	19:08:32.15	0.29
PSZ	266.1	48	Pn	19:08:31.72	-0.44
VYHS	269.4	25	Pn	19:08:32.97	0.40
MYKA	283.5	277	Pn	19:08:34.57	0.24
			Sn	09:06.90	1.30
MOA	287.5	307	Pn	19:08:36.00	1.18
			Sn	09:06.39	-0.09
TIM	309.9	102	PnC	19:08:37.27	-0.36*
KRUC	313.9	347	Pn	19:08:38.48	0.36*
KBA	314.7	286	Pn	19:08:38.57	0.35*
BANR	314.9	109	PnC	19:08:38.27	0.02*
BBLS	317.7	149	Pn	19:08:40.07	1.47*
BIOA	318.4	299	Pn	19:08:39.71	1.02*
			Sn	09:13.91	0.56*
SIRR	335.8	91	PnD	19:08:41.24	0.39*
VRAC	338.0	351	Pn	19:08:41.31	0.18*
KECS	341.1	45	Pn	19:08:41.87	0.36*
BZS	343.1	103	Pn	19:08:42.12	0.36*
ABTA	370.8	278	Pn	19:08:46.08	0.86*
ABAH	370.9	53	Pn	19:08:45.17	-0.06*
SURR	378.3	99	PnC	19:08:46.46	0.30*
MDVR	383.9	116	PnD	19:08:47.31	0.46*
MORC	386.3	3	Pn	19:08:48.20	1.05*
OKC	397.7	9	eSn	19:09:29.30	-1.64*
DRGR	418.3	83	Pn	19:08:51.66	0.52*
ZVC	418.9	326	ePn	19:08:52.10	0.89*
KHC	420.4	318	ePn	19:08:53.30	1.90*
			eSn	09:35.50	-0.49*
HERR	429.3	112	PnC	19:08:53.58	1.07*
			Sn	09:37.80	-0.16*

DEV	435.7	96	PnC	19:08:52.95	-0.35*
			Sn	09:38.00	-1.37*
GZR	437.1	103	PnC	19:08:54.10	0.61*
			Sn	09:39.90	0.20*
MESR	441.7	78	PnC	19:08:54.53	0.47*
			Sn	09:39.30	-1.42*
GOPC	442.7	335	ePn	19:08:54.70	0.51*
WTTA	445.6	284	Pn	19:08:55.98	1.44*
			Sn	09:43.90	2.32*
MARR	448.4	85	PnC	19:08:55.54	0.64*
			Sn	09:40.80	-1.41*
WATA	451.7	285	Pn	19:08:56.84	1.53*
			Sn	09:43.80	0.86*
DPC	455.5	351	ePn	19:08:56.70	0.92*
BOVS	456.9	131	PnC	19:08:56.87	0.92*
			Sn	09:46.10	2.01*
PDG	458.0	160	PnC	19:08:58.23	2.14*
PRU	458.1	333	ePn	19:08:56.40	0.30*
RMGR	459.3	113	PnC	19:08:56.55	0.30*
SQTA	476.5	282	Pn	19:09:00.11	1.71*
			Sn	09:50.76	2.32*
UPC	476.8	348	ePn	19:08:59.80	1.36*
CJR	485.3	85	PnC	19:08:59.93	0.44*
			Sn	09:50.70	0.31*
BMR	495.1	72	PnC	19:09:00.61	-0.11*
PUNG	495.8	117	PnD	19:09:01.38	0.57*
SRE	496.3	112	PnC	19:09:01.50	0.63*
FETA	509.4	279	Pn	19:09:04.17	1.68*
			Sn	09:55.08	-0.65*
LOT	511.1	101	PnD	19:09:03.29	0.59*
			Sn	09:55.80	-0.31*
RETA	515.4	285	Sn	19:09:57.32	0.25*
BLKB	518.3	125	PnC	19:09:04.74	1.14*
			Sn	09:58.10	0.39*
ARCR	546.2	81	Sn	19:10:02.80	-1.11*
MDB	546.4	92	PnC	19:09:06.66	-0.45*
NKC	566.2	320	ePn	19:09:10.30	0.72*
DAVA	577.1	281	Pn	19:09:11.86	0.92*
			Sn	10:10.90	0.14*
ARR	579.0	100	PnC	19:09:10.70	-0.48*
			Sn	10:12.00	0.80*
VOIR	609.2	99	PnC	19:09:15.00	0.06*
			Sn	10:17.80	-0.09*
BURA	619.7	76	PnC	19:09:16.30	0.05*
			Sn	10:18.80	-1.42*
DOPR	626.0	93	PnC	19:09:16.58	-0.45*
OZUR	655.2	92	PnC	19:09:20.04	-0.64*
MLR	676.8	98	PnD	19:09:23.94	0.57*
NEHR	705.1	98	PnC	19:09:27.50	0.60*
TESR	719.0	88	PnC	19:09:27.83	-0.81*
VRI	730.6	94	PnC	19:09:30.05	-0.03*



199.

```
 2019-03-07  time: 19:21:16.66 UTC  ML= 1.0
   lat: 46.261N  lon: 17.387E  h= 10.0 km
                 erh= 7.5km    erz= 4.9km
   nr=  8        gap=216       rms=0.62
   Locality: Ötvöskónyi
   Comments:

sta   dist azm  phase  hr mn  sec     res
A264  13.5 214    PgD  19:21:19.74    0.08
                  Sg      21:21.12   -0.88
KOVH  58.3 109    Pg   19:21:28.45    1.24
                  Sg      21:35.63    0.18
PKSM  96.9  93    Pg   19:21:33.94   -0.11
                  Sg      21:47.43   -0.18
PKB4  97.2  74    Sg   19:21:47.20   -0.51
PKB5 110.1  70    Sn   19:21:50.67   -0.67
```

200.

```
 2019-03-07  time: 19:38:21.70 UTC  ML= 1.3
   lat: 46.277N  lon: 17.392E  h= 10.0 km
                 erh= 3.9km    erz= 3.4km
   nr= 10        gap=211       rms=0.55
   Locality: Szabás
   Comments:

sta   dist azm  phase  hr mn  sec     res
A264  15.2 211    PgD  19:38:24.86   -0.09
                  Sg      38:27.03   -0.46
A265  35.2  62    Pg   19:38:28.51    0.28
KOVH  58.6 111    Pg   19:38:33.60    1.29
                  Sg      38:40.53   -0.05
PKB4  96.4  75    Sg   19:38:52.50    0.00
PKSM  96.7  94    Pg   19:38:38.36   -0.69
                  Sg      38:52.73    0.14
MORH  96.8  94    Sg   19:38:52.64    0.00
PKB5 109.2  71    Sn   19:38:55.58   -0.60
```

201.

```
 2019-03-07  time: 21:06:59.20 UTC  ML= 1.5
   lat: 47.510N  lon: 18.969E  h= 10.0 km
                 erh= 2.1km    erz= 2.0km
   nr= 20        gap= 69       rms=0.78
   Locality: Budakeszi
   Comments:
```

sta	dist	azm	phase	hr mn sec	res
BUD	5.1	126	PgU	21:07:01.62	0.42
			Sg	07:02.99	0.23
NADP	38.6	223	Pg	21:07:06.52	0.20
PENC	39.0	37	Pg	21:07:05.95	-0.44
PKSG	45.6	253	Pg	21:07:07.25	-0.28
			Sg	07:12.93	-1.10
CSKK	55.9	253	Pg	21:07:08.84	-0.50
SRO	59.7	304	ePg	21:07:11.40	1.39
			eSg	07:17.50	-0.94
PKB1	81.8	189	Pg	21:07:14.86	0.95
			Sg	07:25.24	-0.15
PSZ	82.9	57	Pg	21:07:14.06	-0.05
			Sg	07:24.15	-1.60
PKSN	96.3	135	Sg	21:07:29.13	-0.84
PKB5	103.3	190	P*	21:07:18.01	0.29
			S*	07:30.77	-1.39
VYHS	109.8	355	Pn	21:07:18.08	-0.57
KECS	156.6	46	ePn	21:07:26.30	1.83
			eSn	07:44.80	0.61
MODS	158.7	307	ePn	21:07:26.00	1.26

202.

2019-03-08 time: 0:11:55.30 UTC ML= 1.7
lat: 46.312N lon: 17.315E h= 15.5 km
erh= 1.8km erz= 1.3km
nr= 27 gap= 67 rms=0.59
Locality: Ötvöskónyi
Comments:

sta	dist	azm	phase	hr mn sec	res
A264	17.1	187	PgD	0:11:59.29	-0.13
A263	36.5	360	PgU	0:12:01.82	-0.56
A265	39.0	71	PgD	0:12:02.97	0.17
BEHE	45.0	293	Sg	0:12:10.17	-0.27
KOVH	65.5	112	Pg	0:12:07.90	0.58
			Sg	12:15.02	-1.68
TIH	78.9	34	P*	0:12:09.07	-0.52
PKS9	80.1	68	P*	0:12:09.89	0.12
			S*	12:20.95	-0.12
PKSV	86.4	123	P*	0:12:11.26	0.52
			S*	12:23.40	0.62
MPLH	96.9	10	P*	0:12:12.75	0.42
PKB4	101.2	78	Pn	0:12:13.88	0.92
			Sn	12:25.95	-0.79
PKSM	102.9	96	Pn	0:12:12.69	-0.48
			Sn	12:26.17	-0.94
MORH	103.0	96	Pn	0:12:12.69	-0.50
			Sn	12:25.80	-1.35
PKB5	113.6	74	Pn	0:12:15.12	0.61
			Sn	12:28.53	-0.96
A267	113.8	52	Pn	0:12:14.81	0.27
			Sn	12:29.34	-0.20
PTJ	114.5	246	Pn	0:12:14.92	0.30
			Sn	12:29.00	-0.69
PKST	118.7	28	Pn	0:12:15.45	0.30
			Sn	12:30.17	-0.46
PKB3	145.2	85	Pn	0:12:19.60	1.15

203.

2019-03-08 time: 8:11:12.97 UTC ML= 1.4
lat: 48.080N lon: 20.694E h= 0.0 km
erh= 2.2km erz= 3.9km
nr= 8 gap=194 rms=0.38
Locality: Miskolctapolca
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
ABAH	47.1	59	Pg	8:11:21.45	0.06
			Sg	11:27.61	-0.34
KECS	47.4	341	Pg	8:11:21.45	0.01
			Sg	11:28.10	0.06
PSZ	62.3	253	Pg	8:11:24.15	0.05
			Sg	11:32.25	-0.53
VYHS	145.4	288	ePn	8:11:39.20	1.07
			eSn	11:56.80	-0.95

204.

2019-03-08 time: 8:32:01.34 UTC ML= 1.4
lat: 48.328N lon: 18.991E h= 0.0 km
erh= 2.2km erz= 4.9km
nr= 13 gap=113 rms=0.76
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
A336	10.6	177	Pg	8:32:03.78	0.55
			Sg	32:05.19	0.48
VYHS	21.7	328	Pg	8:32:05.40	0.18
			Sg	32:08.65	0.41
PENC	63.6	160	Sg	8:32:21.72	0.16
PSZ	81.2	124	Pg	8:32:16.47	0.62
			Sg	32:25.75	-1.42
KECS	112.0	81	ePg	8:32:21.90	0.56
			eSg	32:34.90	-2.04
PKSG	113.4	203	Sg	8:32:37.39	0.00
MODS	127.1	272	ePg	8:32:23.00	-1.04
			eSg	32:40.20	-1.55
PKST	138.8	211	Sn	8:32:43.40	-1.27

205.

2019-03-08 time: 8:42:28.17 UTC ML= 1.4
lat: 47.450N lon: 18.733E h= 0.0 km
erh= 1.4km erz= 2.1km
nr= 16 gap=102 rms=0.72
Locality: Etyek
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
BUD	22.3	80	Sg	8:42:36.95	1.70
NADP	23.1	202	Pg	8:42:32.94	0.64
			Sg	42:35.96	0.44
PKSG	26.6	256	Pg	8:42:33.25	0.32
			Sg	42:36.83	0.20
CSKK	36.9	255	Pg	8:42:35.27	0.50
			Sg	42:40.21	0.30
PKST	56.9	248	Pg	8:42:38.28	-0.05
			Sg	42:46.27	0.02
PSZ	101.6	59	Pg	8:42:45.39	-0.92
			Sg	43:00.73	0.27
VYHS	116.3	4	Pg	8:42:48.95	0.01
			Sg	43:04.64	-0.50
MORH	137.4	183	Sn	8:43:09.66	-1.53
PKSM	137.9	183	Sn	8:43:09.59	-1.70
MODS	149.6	313	eSn	8:43:12.20	-1.69

206.

2019-03-08 time: 9:34:00.32 UTC ML= 1.5
lat: 47.519N lon: 18.615E h= 0.0 km
erh= 7.1km erz= 700km
nr= 8 gap=221 rms=0.57
Locality: Bicske
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	22.0	230	Pg	9:34:04.24	-0.01
			Sg	34:07.76	0.44
CSKK	31.8	237	Pg	9:34:05.95	-0.06
			Sg	34:10.45	0.01
PKST	52.5	237	Sg	9:34:16.21	-0.79
MPLH	90.0	245	Sg	9:34:28.67	-0.27
VYHS	109.7	9	Pg	9:34:20.85	0.94
			Sg	34:34.04	-1.15

207.

```
 2019-03-08  time: 10:16:45.78 UTC  ML= 1.9
   lat: 47.000N  lon: 22.257E  h=  0.0 km
                 erh= 3.0km    erz= 2.3km
   nr=  6        gap=249       rms=0.72
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  41.6 124    Pg   10:16:53.63    0.42
                  Sg      16:58.65   -0.35
ARCR 159.6  87    Pn   10:17:13.06    0.34
                  Sn      17:32.54   -1.19
BZS  161.4 198    Pn   10:17:13.51    0.56
                  Sn      17:32.59   -1.55
```

208.

```
 2019-03-08  time: 10:35:23.70 UTC  ML= 1.8
   lat: 46.057N  lon: 22.747E  h=  0.0 km
                 erh= 3.5km    erz= 3.6km
   nr=  6        gap=194       rms=0.60
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  81.7 358    Pg   10:35:38.39    0.11
                  Sg      35:48.89   -0.77
BZS  100.5 241    Pg   10:35:42.16    0.51
                  Sg      35:54.56   -1.09
ARCR 168.1  47    Pn   10:35:52.29    0.61
                  Sn      36:13.18   -0.34
MLR  256.6 104    Sn   10:36:30.31   -2.86*
```

209.

```
 2019-03-08  time: 14:04:50.73 UTC  ML= 1.0
   lat: 47.103N  lon: 18.122E  h=  0.0 km
                 erh= 1.6km    erz= 456km
   nr=  8        gap=138       rms=0.32
   Locality: Berhida
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  18.6 339    Pg   14:04:53.52   -0.52
                  Sg      04:56.64    0.01
CSKK  30.8  20    Pg   14:04:56.47    0.25
                  Sg      05:00.69    0.18
MPLH  44.8 280    Sg   14:05:05.29    0.32
PKSM 106.7 158    Pg   14:05:10.07    0.28
                  Sg      05:24.23   -0.42
KOVH 112.8 181    Sg   14:05:26.37   -0.21
```

210.

```
 2019-03-08  time: 23:22:20.25 UTC  ML= 0.1
   lat: 47.352N  lon: 18.283E  h=  3.4 km
                 erh= 6.3km    erz= 4.5km
   nr=  6        gap=180       rms=0.14
   Locality: Csákberény
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   2.1 307    PgU  23:22:20.93   -0.03
                  Sg      22:21.51   -0.01
PKSG   9.3  61    Pg   23:22:22.01    0.00
                  Sg      22:23.54    0.16
PKST  21.4 241    Pg   23:22:23.96   -0.16
                  Sg      22:27.57    0.42
```

211.

```
 2019-03-09  time:  0:21:40.14 UTC  ML= 1.1
   lat: 47.383N  lon: 18.261E  h=  8.2 km
                 erh= 2.1km    erz= 1.0km
   nr=  9        gap=213       rms=0.21
   Locality: Mór
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   2.2 181    PgU   0:21:41.56   -0.11
                  Sg      21:42.17   -0.69
PKSG   9.8  84    PgD   0:21:42.56    0.12
                  Sg      21:44.08   -0.14
PKST  22.0 231    Pg    0:21:44.38    0.04
                  Sg      21:47.88    0.27
NADP  30.3 117    Sg    0:21:50.46    0.33
MORH 133.0 167    Sn    0:22:20.16   -0.14
PKSM 133.4 167    Sn    0:22:20.24   -0.15
```

212.

```
 2019-03-09  time:  0:22:23.22 UTC  ML= 0.5
   lat: 47.376N  lon: 18.265E  h=  5.1 km
                 erh= 1.1km    erz= 0.8km
   nr=  7        gap=207       rms=0.11
   Locality: Csókakő
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   1.5 193    Pg    0:22:24.23    0.05
                  Sg      22:24.80   -0.12
PKSG   9.6  80    Pg    0:22:25.24    0.07
                  Sg      22:26.70    0.01
PKST  21.8 233    Pg    0:22:27.12   -0.10
                  Sg      22:30.65    0.31
NADP  29.7 116    Sg    0:22:32.72   -0.10
```

213.

```
 2019-03-09  time:  0:23:01.70 UTC  ML= 0.7
   lat: 47.400N  lon: 18.245E  h=  1.9 km
                 erh= 3.3km    erz= 6.4km
   nr=  6        gap=229       rms=0.09
   Locality: Pusztavám
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   4.3 164    Pg    0:23:02.42   -0.11
                  Sg      23:03.21    0.02
PKSG  11.0  95    PgU   0:23:03.74    0.04
                  Sg      23:05.29    0.04
PKST  22.4 225    Pg    0:23:05.65   -0.06
                  Sg      23:09.03    0.20
```

214.

```
 2019-03-09  time:  0:23:24.04 UTC  ML= 0.8
   lat: 47.396N  lon: 18.261E  h=  8.0 km
                 erh= 2.8km    erz= 1.3km
   nr=  9        gap=224       rms=0.29
   Locality: Pusztavám
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   3.7 181    Pg    0:23:25.53   -0.08
                  Sg      23:26.12   -0.72
PKSG   9.8  93    PgD   0:23:26.48    0.19
                  Sg      23:27.94   -0.11
PKST  23.0 228    Pg    0:23:28.35   -0.03
                  Sg      23:32.16    0.39
NADP  31.0 120    Sg    0:23:34.52    0.30
MORH 134.4 167    Sn    0:24:04.81    0.24
PKSM 134.8 168    Sn    0:24:04.08   -0.57
```

215.

```
 2019-03-09  time:  0:24:09.70 UTC  ML= 0.0
   lat: 47.354N  lon: 18.281E  h=  4.0 km
                 erh= 2.2km    erz= 1.3km
   nr=  5        gap=178       rms=0.09
   Locality: Csókakő
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   1.9 305    Pg    0:24:10.42   -0.07
                  Sg      24:11.09   -0.01
PKSG   9.3  63    Pg    0:24:11.46   -0.06
                  Sg      24:13.11    0.18
PKST  21.4 241    Sg    0:24:16.70    0.08
```

216.

```
 2019-03-09  time:  1:12:45.69 UTC  ML= 0.2
   lat: 47.383N  lon: 18.264E  h=  4.4 km
                 erh= 8.2km    erz= 2.7km
   nr=  6        gap=212       rms=0.14
   Locality: Mór
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   2.2 187    PgU   1:12:46.58    0.02
                  Sg      12:47.09   -0.15
PKSG   9.6  84    PgU   1:12:47.68    0.11
                  Sg      12:49.01   -0.04
PKST  22.2 232    Pg    1:12:49.57   -0.15
                  Sg      12:53.19    0.32
```

217.

```
 2019-03-09  time:  9:31:21.70 UTC  ML= 0.7
   lat: 46.181N  lon: 18.289E  h=  0.0 km
                 erh= 1.2km    erz= 224km
   nr=  8        gap=207       rms=0.16
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.9 235    Pg    9:31:24.82   -0.08
                  Sg      31:27.78    0.39
PKSM  27.4  83    Pg    9:31:26.37   -0.22
                  Sg      31:30.44    0.03
MORH  27.7  82    Pg    9:31:26.82    0.18
                  Sg      31:30.59    0.09
PKSV  32.7 185    Pg    9:31:27.53    0.00
                  Sg      31:31.94   -0.15
```

218.

```
 2019-03-11  time: 10:34:52.42 UTC  ML= 1.5
   lat: 47.857N  lon: 19.829E  h=  0.0 km
                 erh= 5.7km    erz= ***km
   nr=  8        gap=179       rms=0.85
   Locality: Gyöngyöspata
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ    8.4  36    Pg   10:34:54.35    0.44
                  Sg      34:56.04    0.96
PENC  41.7 260    Pg   10:35:00.06    0.20
                  Sg      35:07.05    1.39
A336  74.7 304    Sg   10:35:15.36   -0.80
KECS  85.0  35    Sg   10:35:19.07   -0.38
ABAH 115.9  65    Sg   10:35:28.31   -0.94
PKSG 119.9 244    Sg   10:35:28.83   -1.69
```

219.

```
 2019-03-11  time: 10:49:13.76 UTC  ML= 2.0
   lat: 48.302N  lon: 18.617E  h=  0.0 km
                 erh= 3.1km    erz= 6.6km
   nr= 15        gap=119       rms=1.07
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A336  29.4 105    Pg   10:49:19.69    0.68
                  Sg      49:23.67    0.57
A338  37.4 212    Sg   10:49:26.09    0.43
PENC  75.4 139    Sg   10:49:37.89    0.15
A339  88.8 234    Pg   10:49:31.92    2.30
MODS  99.6 275   ePg   10:49:31.60    0.05
                 eSg      49:43.60   -1.83
PKSG 102.6 189    Pg   10:49:32.30    0.22
                  Sg      49:45.20   -1.17
PSZ  104.3 114    Sg   10:49:45.90   -1.00
LANS 113.3  34   ePg   10:49:33.30   -0.69
                 eSg      49:48.50   -1.27
PKST 123.9 201    Sg   10:49:50.55   -2.59
KECS 139.9  82   ePn   10:49:38.10   -0.14
                 eSn      49:57.30   -0.03
```

220.

```
 2019-03-11  time: 11:01:01.36 UTC  ML= 2.0
   lat: 48.180N  lon: 16.915E  h=  0.0 km
                 erh= 2.0km    erz= 3.7km
   nr= 14        gap=106       rms=0.66
   Locality: Austria
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MODS  34.5  51   ePg   11:01:07.70    0.18
                 eSg      01:12.40    0.08
RONA  70.6 221    Pg   11:01:13.68   -0.29
                  Sg      01:22.30   -1.51
CONA  83.4 250    Pg   11:01:17.10    0.85
                  Sg      01:27.65   -0.21
EGYH  90.4 160    Sg   11:01:30.26    0.18
KRUC 105.3 339    Pg   11:01:20.77    0.61
                  Sg      01:34.33   -0.50
MPLH 121.7 157    Sg   11:01:38.89   -1.14
VRAC 127.7 349    Pg   11:01:24.13   -0.03
                  Sg      01:40.60   -1.35
ARSA 146.9 225    Pn   11:01:27.35    0.64
                  Sn      01:46.38   -0.11
```

221.

```
 2019-03-11  time: 11:16:13.53 UTC  ML= 1.5
   lat: 47.027N  lon: 17.798E  h=  0.0 km
                 erh= 2.0km    erz= 707km
   nr= 15        gap=142       rms=0.61
   Locality: Tótvázsony
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
TIH   15.9 153    Pg   11:16:16.89    0.52
                  Sg      16:19.85    1.27
MPLH  25.2 309    Pg   11:16:18.42    0.39
                  Sg      16:20.99   -0.55
PKST  31.4  35    Pg   11:16:18.68   -0.46
                  Sg      16:23.02   -0.49
CSKK  51.2  43    Pg   11:16:23.01    0.33
                  Sg      16:29.65   -0.17
PKB5  86.2 124    Pg   11:16:29.93    1.00
KOVH 106.9 167    Pg   11:16:32.69    0.07
                  Sg      16:46.46   -1.05
MORH 111.1 144    Pg   11:16:33.25   -0.12
                  Sg      16:47.75   -1.09
PKSM 111.3 145    Pg   11:16:33.20   -0.21
```

```
                  Sg      16:47.90   -1.02
```

222.

```
 2019-03-11  time: 11:40:16.23 UTC  ML= 2.1
   lat: 47.327N  lon: 18.412E  h=  0.0 km
                 erh= 2.5km    erz= 4.6km
   nr=  9        gap=148       rms=0.63
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   7.4 347    PgU  11:40:17.67    0.13
                  Sg      40:18.09   -0.48
CSKK  12.1 289    Pg   11:40:19.07    0.68
                  Sg      40:20.46    0.38
PKST  29.5 255    Sg   11:40:24.70   -0.92
A336 109.9  24    Sg   11:40:49.28   -1.89
MORH 124.8 172    Sg   11:40:55.86   -0.04
PKSM 125.2 172    Sg   11:40:56.14    0.11
KOVH 139.8 190    Sn   11:41:00.08    0.31
```

223.

```
 2019-03-11  time: 17:45:31.03 UTC  ML= 1.1
   lat: 46.338N  lon: 17.306E  h=  3.8 km
                 erh= 0.3km    erz= 0.2km
   nr=  5        gap=175       rms=0.01
   Locality: Segesd
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP1   8.4 274    Pg   17:45:32.68    0.00
                  Sg      45:33.97    0.01
TMP2   8.7 105    Pg   17:45:32.73    0.01
                  Sg      45:34.03   -0.02
BEHE  43.3 290    Sg   17:45:44.85   -0.01
```

224.

```
 2019-03-11  time: 19:08:26.56 UTC  ML= 2.1
   lat: 47.404N  lon: 18.392E  h=  0.3 km
                 erh= 1.5km    erz= 4.4km
   nr=  7        gap=248       rms=0.14
   Locality: Gánt
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSG   1.4 185    Pg   19:08:26.59   -0.22
                  Sg      08:26.97   -0.03
CSKK  10.9 246    Pg   19:08:28.46   -0.06
                  Sg      08:30.27    0.23
NADP  23.6 134    Pg   19:08:30.90    0.13
                  Sg      08:34.09    0.04
PKST  31.5 239    Sg   19:08:36.60    0.03
```

225.

```
 2019-03-12  time:  9:36:50.02 UTC  ML= 1.6
   lat: 48.596N  lon: 20.770E  h=  0.0 km
                 erh= 1.7km    erz= 3.9km
   nr= 13        gap= 87       rms=0.60
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.5 239    Pg    9:36:54.11   -0.28
                  Sg      36:57.36   -0.44
ABAH  48.2 134    Pg    9:36:58.74    0.12
                  Sg      37:04.91   -0.42
NIE   97.4 340    Pg    9:37:08.37    0.95
STHS  97.6  21   ePg    9:37:07.10   -0.35
                 eSg      37:20.20   -0.85
PSZ   99.5 221    PgU   9:37:08.79    0.99
                  Sg      37:21.67    0.01
LANS 113.7 303   ePg    9:37:10.10   -0.23
                 eSg      37:24.30   -1.87
KOLS 116.7  71    Sg    9:37:26.85   -0.26
A336 137.2 253    Sn    9:37:32.18   -0.81
```

226.

```
 2019-03-12  time:  9:56:44.07 UTC  ML= 1.9
   lat: 45.567N  lon: 17.449E  h= 10.0 km
                 erh= 2.7km    erz= 2.2km
   nr= 14        gap=133       rms=0.62
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  72.0  60    Pg    9:56:58.02    0.96
                  Sg      57:06.27   -0.92
KOVH  77.0  41    Pg    9:56:58.44    0.51
                  Sg      57:07.35   -1.39
BLY   93.2 193    Pg    9:57:00.62   -0.19
                  Sg      57:12.87   -1.00
PKSM 117.1  52    Pn    9:57:04.64    0.22
                  Sn      57:19.25   -1.05
MORH 117.5  52    Pn    9:57:04.61    0.13
                  Sn      57:19.45   -0.95
PTJ  121.8 288    Pn    9:57:05.34    0.32
KOGS 135.0 317    Pn    9:57:06.90    0.24
                  Sn      57:24.30    0.02
PKB4 136.7  41    Sn    9:57:25.00    0.36
```

227.

```
 2019-03-12  time: 10:13:24.51 UTC  ML= 0.9
   lat: 46.247N  lon: 18.236E  h=  0.0 km
                 erh= 4.2km    erz= 487km
   nr=  7        gap=245       rms=0.33
   Locality: Mecsekpölöske
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  20.5 211    Pg   10:13:28.31    0.13
                  Sg      13:31.12    0.08
PKSM  31.5  97    Pg   10:13:29.97   -0.16
                  Sg      13:34.94    0.42
MORH  31.6  96    Pg   10:13:30.02   -0.14
                  Sg      13:34.84    0.27
PKSV  39.8 178    Sg   10:13:35.74   -1.43
```

228.

```
 2019-03-12  time: 10:17:48.95 UTC  ML= 0.8
   lat: 47.094N  lon: 18.357E  h=  0.0 km
                 erh= 4.7km    erz= 981km
   nr=  7        gap=171       rms=0.66
   Locality: Kőszárhegy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  30.6 307    Pg   10:17:54.91    0.50
                  Sg      17:58.23   -0.44
CSKK  30.8 346    Pg   10:17:54.77    0.32
                  Sg      17:57.40   -1.34
PKSG  33.2   4    Pg   10:17:55.49    0.61
                  Sg      17:59.20   -0.30
PKB1  47.8 136    Sg   10:18:03.06   -1.09
```

229.

```
 2019-03-12  time: 10:44:51.66 UTC  ML= 2.2
   lat: 48.230N  lon: 21.264E  h=  0.0 km
                 erh= 4.7km    erz= 4.0km
   nr=  9        gap=208       rms=0.74
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   7.6 346    Pg   10:44:53.40    0.39
                  Sg      44:54.80    0.73
KECS  64.2 296    Pg   10:45:03.44    0.31
                  Sg      45:11.42   -0.65
PSZ  107.8 251    Pg   10:45:11.42    0.51
                  Sg      45:24.38   -1.54
KOLS 108.0  44    Sg   10:45:25.18   -0.80
NIE  149.5 332    Sn   10:45:36.07   -1.30
A336 168.3 270    Sn   10:45:42.20    0.67
```

230.

```
 2019-03-12  time: 13:00:05.75 UTC  ML= 2.0
   lat: 48.511N  lon: 19.798E  h=  0.0 km
                 erh= 7.0km    erz= ***km
   nr=  9        gap= 99       rms=1.99
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  50.9  93    Pg   13:00:16.68    1.84
                  Sg      00:23.11    1.18
PSZ   66.3 174    Pg   13:00:16.97   -0.61
                  Sg      00:23.39   -3.42
A336  66.8 242    Pg   13:00:20.28    2.61
                  Sg      00:27.61    0.64
LANS  75.2 341    Sg   13:00:27.29   -2.35
NIE  107.8  20    Sg   13:00:37.45   -2.57
ABAH 109.4 103    Sg   13:00:39.03   -1.48
```

231.

```
 2019-03-12  time: 15:02:33.93 UTC  ML= 2.0
   lat: 48.358N  lon: 20.952E  h= 10.0 km
                 erh= 1.8km    erz= 1.4km
   nr= 15        gap= 95       rms=0.45
   Locality: Selyeb
   Comments:

sta   dist azm  phase  hr mn  sec     res
ABAH  22.4 108    Pg   15:02:38.59    0.27
                  Sg      02:41.62   -0.12
KECS  37.2 292    Pg   15:02:40.92    0.11
                  Sg      02:45.38   -0.80
PSZ   92.6 238    Pg   15:02:50.56   -0.01
                  Sg      03:03.01   -0.53
KOLS 116.5  57    Pn   15:02:54.58    0.36
                  Sn      03:09.33   -0.71
STHS 119.7  10    Pn   15:02:54.79    0.18
                  Sn      03:08.72   -2.02
NIE  127.0 338    Pn   15:02:55.65    0.13
                  Sn      03:11.58   -0.77
LANS 140.3 309    Pn   15:02:57.78    0.60
A336 145.5 265    Sn   15:03:16.96    0.48
DRGR 218.7 143    Sn   15:03:31.77   -0.95
```

232.

```
 2019-03-12  time: 15:55:50.26 UTC  ML= 1.9
   lat: 46.107N  lon: 21.747E  h=  4.5 km
                 erh= 1.6km    erz= 1.6km
   nr= 22        gap= 59       rms=0.67
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
SIRR  19.1 339    PgC  15:55:54.17    0.40
                  Sg      55:56.80    0.29
SURR  48.9 143    PgD  15:55:59.66    0.62
                  Sg      56:05.50   -0.38
BZS   55.4 191    Pg   15:56:00.49    0.30
                  Sg      56:07.37   -0.56
AMBH  83.3 289    Sg   15:56:15.59   -1.20
DRGR 106.2  44    Pg   15:56:09.20   -0.05
                  Sg      56:22.22   -1.83
GZR  112.7 135    PgC  15:56:10.31   -0.09
                  Sg      56:25.30   -0.81
MARR 123.0  59    PnC  15:56:11.67   -0.38
HERR 145.9 159    PnC  15:56:15.42    0.51
                  Sn      56:33.20   -0.93
MDVR 147.3 181    PnC  15:56:15.95    0.87
                  Sn      56:33.60   -0.84
MESR 148.1  38    Sn   15:56:34.80    0.19
CJR  157.5  65    PnC  15:56:17.20    0.85
                  Sn      56:36.00   -0.70
LOT  173.5 115    PnD  15:56:19.34    0.99
                  Sn      56:41.30    1.05
FRGS 185.7 234    Sn   15:56:42.49   -0.48
```

233.

```
 2019-03-12  time: 23:23:17.82 UTC  ML= 1.3
   lat: 45.607N  lon: 18.007E  h= 18.4 km
                 erh= 3.8km    erz= 1.4km
   nr=  7        gap=331       rms=0.21
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  36.7  31    Pg   23:23:24.95   -0.20
                  Sg      23:31.02    0.15
KOVH  54.0   8    Pg   23:23:28.24    0.23
                  Sg      23:35.79   -0.17
PKSM  83.4  36    P*   23:23:32.48   -0.05
MORH  83.9  36    P*   23:23:32.48   -0.13
                  S*      23:44.73    0.59
```

234.

```
 2019-03-13  time:  8:58:22.72 UTC  ML= 1.6
   lat: 47.948N  lon: 20.012E  h= 10.0 km
                 erh= 3.4km    erz= 4.6km
   nr=  7        gap=182       rms=0.44
   Locality: Bodony
   Comments:

sta   dist azm  phase  hr mn  sec     res
PSZ    9.4 249    Pg    8:58:25.41    0.24
                  Sg      58:26.87   -0.22
PENC  57.4 252    Sg    8:58:40.60   -0.64
KECS  69.1  31    Sg    8:58:44.99    0.07
A336  81.9 293    Sg    8:58:48.94    0.00
ABAH  99.2  67    Pg    8:58:41.05    0.52
                  Sg      58:53.58   -0.84
```

235.

```
 2019-03-13  time:  9:30:49.50 UTC  ML= 1.0
   lat: 46.176N  lon: 18.298E  h=  0.0 km
                 erh= 0.7km    erz= 119km
   nr=  7        gap=203       rms=0.08
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  18.1 237    Pg    9:30:52.63   -0.11
                  Sg      30:55.42    0.15
PKSM  26.8  82    Pg    9:30:54.36    0.07
                  Sg      30:58.03    0.00
```

```
MORH  27.1  81    Pg    9:30:54.30   -0.04
PKSV  32.2 186    Pg    9:30:55.28    0.03
                  Sg      30:59.67   -0.06
```

236.

```
 2019-03-13  time:  9:41:20.10 UTC  ML= 1.9
   lat: 47.897N  lon: 20.067E  h=  0.0 km
                erh= 2.9km    erz= 480km
   nr=  8       gap=196       rms=0.35
   Locality: Parád
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   13.1 280    PgU   9:41:22.47    0.03
                  Sg      41:24.18   -0.10
PENC  60.0 259    Pg    9:41:30.76   -0.05
                  Sg      41:38.54   -0.63
KECS  72.2  26    Sg    9:41:42.66   -0.38
A336  88.0 295    Pg    9:41:36.10    0.29
ABAH  97.9  63    Pg    9:41:38.09    0.51
                  Sg      41:50.71   -0.51
```

237.

```
 2019-03-13  time: 11:56:04.60 UTC  ML= 1.7
   lat: 47.334N  lon: 18.383E  h=  0.0 km
                erh= 1.9km    erz= 645km
   nr= 10       gap=110       rms=0.50
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   6.5   5    Pg   11:56:05.68   -0.08
                  Sg      56:06.23   -0.43
CSKK   9.8 289    Pg   11:56:06.83    0.48
                  Sg      56:08.39    0.68
NADP  19.7 115    Sg   11:56:11.13    0.27
PKST  27.6 252    Pg   11:56:09.97    0.44
                  Sg      56:12.51   -0.87
MPLH  66.4 254    Pg   11:56:15.87   -0.58
MORH 125.9 171    Pg   11:56:27.34    0.26
                  Sg      56:43.71   -0.90
```

238.

```
 2019-03-13  time: 12:04:35.38 UTC  ML= 1.0
   lat: 47.233N  lon: 18.271E  h=  0.0 km
                erh= 2.3km    erz= 339km
   nr=  8       gap=236       rms=0.24
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  14.5 357    Pg   12:04:38.05    0.08
                  Sg      04:40.20    0.21
PKST  18.2 279    Pg   12:04:38.35   -0.27
                  Sg      04:41.06   -0.09
PKSG  19.8  27    Pg   12:04:38.74   -0.18
                  Sg      04:41.48   -0.20
MPLH  55.9 263    Pg   12:04:45.83    0.47
                  Sg      04:53.16    0.02
```

239.

```
 2019-03-14  time:  9:43:31.44 UTC  ML= 1.9
   lat: 46.847N  lon: 17.321E  h=  0.0 km
                erh= 4.6km    erz= 524km
   nr=  6       gap=190       rms=0.31
   Locality: Lesencefalu
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  39.6  25    Pg    9:43:38.69    0.18
                  Sg      43:43.68   -0.35
PKST  71.0  50    Pg    9:43:44.03   -0.09
                  Sg      43:53.57   -0.44
CSKK  91.6  51    Sg    9:44:01.25    0.70
KOGS  93.2 242    Sg    9:44:01.12    0.06
```

240.

```
 2019-03-14  time:  9:48:24.54 UTC  ML= 1.7
   lat: 45.715N  lon: 17.288E  h= 13.2 km
                erh= 2.7km    erz= 1.8km
   nr= 10       gap=131       rms=0.38
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOVH  75.4  57    Pg    9:48:38.37    0.16
                  Sg      48:48.48   -0.39
PKSV  77.3  76    Pg    9:48:38.51   -0.04
                  Sg      48:49.28   -0.20
BLY  107.7 184    Pn    9:48:43.06   -0.27
KOGS 114.4 315    Sn    9:48:59.16   -0.29
PKSM 118.5  62    Pn    9:48:45.30    0.63
                  Sn      48:59.77   -0.59
MORH 118.9  62    Pn    9:48:45.23    0.51
                  Sn      49:00.09   -0.36
```

241.

```
 2019-03-14  time: 20:02:43.21 UTC  ML= 1.3
   lat: 46.476N  lon: 17.332E  h=  0.7 km
                erh= 5.0km    erz= 200km
   nr=  6       gap=187       rms=0.67
   Locality: Nagyszakácsi
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP1  18.0 215    Pg   20:02:46.72    0.29
                  Sg      02:47.62   -1.33
TMP2  18.7 160    Pg   20:02:47.34    0.80
                  Sg      02:48.65   -0.50
TIH   63.8  42    Sg   20:03:03.53    0.05
KOVH  73.2 126    Sg   20:03:05.87   -0.60
```

242.

```
 2019-03-15  time:  9:09:05.17 UTC  ML= 1.5
   lat: 48.550N  lon: 20.758E  h=  0.0 km
                erh= 4.6km    erz= 572km
   nr=  6       gap=239       rms=0.34
   Locality: Komjáti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  21.5 250    Pg    9:09:09.21    0.21
                  Sg      09:11.77   -0.22
ABAH  45.5 128    Pg    9:09:13.63    0.35
                  Sg      09:19.20   -0.41
PSZ   95.1 222    Pg    9:09:21.73   -0.42
                  Sg      09:35.75    0.35
```

243.

```
 2019-03-15  time:  9:26:53.65 UTC  ML= 1.9
   lat: 47.003N  lon: 22.311E  h=  0.0 km
                erh= 2.3km    erz= 2.7km
   nr= 38       gap= 45       rms=1.35
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  38.5 128    Pg    9:27:00.97    0.44
                  Sg      27:05.79   -0.11
BORR  41.1 284    PgC   9:27:02.43    1.45
```

```
                  Sg      27:08.00    1.30
MESR  51.2  71    PgD   9:27:04.18    1.39
                  Sg      27:10.50    0.59
MARR  71.6 121    PgD   9:27:06.63    0.20
                  Sg      27:15.30   -1.10
SIRR  95.8 211    PgD   9:27:10.82    0.06
                  Sg      27:21.90   -2.20
CJR  103.3 108    PgC   9:27:12.26    0.16
                  Sg      27:25.30   -1.19
BMR  116.5  50    PgC   9:27:15.35    0.89
                  Sg      27:30.10   -0.59
TRPA 126.5   8    Pg    9:27:12.42   -3.82
                  Sg      27:31.70   -2.16
DEV  132.6 160    Sn    9:27:32.20   -3.39
SURR 139.6 186    PnC   9:27:18.09    0.00
                  Sn      27:34.70   -2.46
AMBH 141.4 239    Sn    9:27:36.57   -0.97
ARCR 155.5  87    Pn    9:27:21.16    1.08
                  Sn      27:40.49   -0.20
BZS  163.1 199    Pn    9:27:21.41    0.38
                  Sn      27:40.74   -1.64
ABAH 164.7 331    Pn    9:27:20.41   -0.82
                  Sn      27:41.34   -1.39
GZR  182.5 169    PnC   9:27:24.75    1.31
                  Sn      27:46.60   -0.08
LOT  206.3 147    PnD   9:27:27.50    1.09
                  Sn      27:52.60    0.64
PSZ  208.7 299    PnC   9:27:29.38    2.67
                  Sn      27:54.30    1.81
BURA 230.0  73    PnD   9:27:31.50    2.13
                  Sn      27:58.60    1.37
HERR 236.0 178    PnC   9:27:31.66    1.54
                  Sn      27:58.60    0.04
MDVR 251.3 191    PnC   9:27:32.53    0.51
                  Sn      28:02.30    0.36
```

244.

```
 2019-03-15  time: 10:42:09.14 UTC  ML= 1.6
   lat: 46.111N  lon: 21.730E  h=  8.6 km
                 erh= 3.3km    erz= 2.9km
   nr= 12        gap=100       rms=0.75
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
SIRR  18.2 343    PgC  10:42:12.73    0.00
                  Sg      42:15.60    0.07
SURR  50.1 142    PgD  10:42:18.91    0.70
BZS   55.7 189    Pg   10:42:18.85   -0.34
                  Sg      42:25.78   -1.26
AMBH  81.9 289    Sg   10:42:35.32    0.00
DRGR 106.8  45    Pg   10:42:23.82   -4.44*
GZR  114.0 134    PnD  10:42:28.93   -0.36
                  Sn      42:44.10   -0.91
MARR 123.9  60    PnD  10:42:31.36    0.84
                  Sn      42:46.10   -1.10
MDVR 147.8 181    PnD  10:42:34.99    1.49
                  Sn      42:53.10    0.59
```

245.

```
 2019-03-15  time: 10:51:08.13 UTC  ML= 1.9
   lat: 48.472N  lon: 22.602E  h=  0.0 km
                 erh= 1.7km    erz= 1.6km
   nr= 12        gap=174       rms=0.38
   Locality: Ukraine
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
TRPA  38.3 187    Pg   10:51:15.30    0.33
                  Sg      51:20.45    0.15
KOLS  56.7 335    Pg   10:51:18.44    0.18
                  Sg      51:25.87   -0.29
ABAH 102.8 259    Pg   10:51:25.87   -0.62
                  Sg      51:40.98    0.17
KWP  129.2   3    Pg   10:51:30.79   -0.41
STHS 144.7 317    Pn   10:51:33.45    0.24
                  Sn      51:53.33    0.56
KECS 156.5 270   ePn   10:51:35.00    0.32
                 eSn      51:54.50   -0.88
DRGR 187.0 177    Sn   10:52:01.84   -0.32
```

246.

```
 2019-03-15  time: 10:52:43.60 UTC  ML= 1.5
   lat: 48.478N  lon: 22.631E  h=  0.0 km
                 erh= 1.8km    erz= 4.1km
   nr=  6        gap=217       rms=0.36
   Locality: Ukraine
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
TRPA  39.3 190    Pg   10:52:50.53   -0.08
KOLS  57.1 333    Pg   10:52:53.89    0.10
                  Sg      53:01.12   -0.62
ABAH 105.0 259    Pg   10:53:02.28   -0.08
                  Sg      53:17.04    0.05
KECS 158.6 270   ePn   10:53:11.50    1.08
```

247.

```
 2019-03-15  time: 10:59:58.22 UTC  ML= 1.9
   lat: 48.136N  lon: 16.924E  h=  0.0 km
                 erh= 2.7km    erz= 2.9km
   nr= 15        gap= 97       rms=0.87
   Locality: Austria
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MODS  37.2  45   ePg   11:00:04.90    0.04
                 eSg      00:09.50   -0.54
SMOL  56.2  42    Pg   11:00:09.48    1.22
                  Sg      00:16.06   -0.03
RONA  67.5 224    Pg   11:00:10.26   -0.02
                  Sg      00:18.84   -0.84
CONA  82.5 254    Pg   11:00:13.30    0.34
                  Sg      00:24.00   -0.46
KRUC 110.1 339    Pg   11:00:18.72    0.85
                  Sg      00:32.03   -1.17
VRAC 132.6 349    Sn   11:00:38.15   -2.01
PKSG 137.6 127    Sn   11:00:38.66   -2.62
ARSA 144.1 227    Pn   11:00:23.84    0.62
                  Sn      00:42.22   -0.50
A336 154.7  86    Sn   11:00:45.08    0.01
```

248.

```
 2019-03-15  time: 13:50:05.94 UTC  ML= 1.3
   lat: 46.096N  lon: 21.765E  h=  0.0 km
                 erh= 1.5km    erz= 3.2km
   nr= 13        gap= 97       rms=0.54
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
SIRR  20.8 337    PgD  13:50:09.38   -0.27
                  Sg      50:12.20   -0.35
BZS   54.5 192    Pg   13:50:15.64   -0.02
                  Sg      50:22.76   -0.49
AMBH  85.1 289    Sg   13:50:33.54    0.56
DRGR 106.2  43    Pg   13:50:25.33    0.43
                  Sg      50:39.03   -0.66
GZR  110.8 135    PgD  13:50:26.89    1.16
                  Sg      50:41.10   -0.07
MARR 122.5  58    PgC  13:50:28.43    0.61
                  Sg      50:44.00   -0.88
MDVR 146.1 182    PnC  13:50:30.97   -0.22
                  Sn      50:50.20   -0.68
```

249.

```
 2019-03-16  time: 15:08:16.69 UTC  ML= 2.4
   lat: 45.663N  lon: 17.914E  h= 10.0 km
                 erh= 2.9km    erz= 2.0km
   nr= 29        gap=162       rms=0.67
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  36.3  46    Pg   15:08:23.84    0.42
                  Sg      08:28.62   -0.05
KOVH  49.4  17    Pg   15:08:25.98    0.28
                  Sg      08:31.60   -1.12
PKSM  83.1  43    Pg   15:08:31.50   -0.14
                  Sg      08:41.76   -1.53
MORH  83.6  43    Pg   15:08:31.55   -0.17
PKS9 106.5  15    P*   15:08:35.95    0.24
BLY  116.7 209    Pn   15:08:36.79   -0.21
                  Sn      08:51.09   -1.74
PKB5 121.5  32    Pn   15:08:38.49    0.89
                  Sn      08:52.65   -1.26
BEHE 125.7 316    Pn   15:08:37.96   -0.17
                  Sn      08:53.26   -1.58
PKS2 136.4  47    Pn   15:08:38.57   -0.88
TIH  137.5 359    Pn   15:08:39.54   -0.05
PKB1 141.9  29    Pn   15:08:40.23    0.09
                  Sn      08:59.57    1.15
PTJ  154.4 280    Pn   15:08:41.53   -0.17
MPLH 170.0 350    Pn   15:08:44.44    0.80
PKST 177.7   3    Pn   15:08:45.03    0.43
PKS7 181.4  32    Pn   15:08:46.08    1.02
PKSG 195.6  11    Pn   15:08:47.82    0.98
GROS 206.7 295    Pn   15:08:48.00   -0.22
SOKA 249.5 297    Pn   15:08:53.55   -0.01
RONA 258.0 331    Pn   15:08:55.28    0.66
OBKA 276.8 290    Pn   15:08:57.51    0.55
CONA 296.6 328    Pn   15:09:00.04    0.61
                  Sn      09:33.77    1.00*
MOA  369.8 311    Pn   15:09:09.68    1.12*
```

250.

```
 2019-03-18  time:  8:39:49.61 UTC  ML= 1.8
   lat: 46.055N  lon: 22.784E  h=  0.0 km
                 erh= 4.2km    erz= 4.6km
   nr=  6        gap=195       rms=0.52
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  82.1 356    Pg    8:40:04.35    0.07
                  Sg      40:15.20   -0.52
BZS  102.9 242    Pg    8:40:08.37    0.38
                  Sg      40:21.63   -0.70
ARCR 166.2  46    Pn    8:40:18.01    0.64
                  Sn      40:38.05   -0.97
```

251.

```
 2019-03-18  time: 11:45:15.70 UTC  ML= 1.2
   lat: 46.141N  lon: 18.049E  h=  0.0 km
                 erh= 1.8km    erz= 249km
   nr=  8        gap=289       rms=0.18
   Locality: Hetvehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   7.1 146    Pg   11:45:16.95   -0.01
                  Sg      45:18.25    0.30
PKSV  32.2 151    Pg   11:45:21.27   -0.18
                  Sg      45:25.71   -0.22
PKSM  46.4  80    Pg   11:45:24.13    0.14
                  Sg      45:30.30   -0.15
MORH  46.7  80    Pg   11:45:24.25    0.21
                  Sg      45:30.30   -0.25
```

252.

```
 2019-03-19  time:  9:24:06.33 UTC  ML= 2.0
   lat: 47.332N  lon: 18.394E  h=  0.0 km
                 erh= 2.7km    erz= 862km
   nr=  6        gap=118       rms=0.50
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   6.7 358    PgU   9:24:07.54    0.01
                  Sg      24:08.08   -0.38
NADP  18.8 116    Sg    9:24:13.22    0.91
PKST  28.4 253    Sg    9:24:15.88    0.52
MORH 125.5 171    Sg    9:24:45.64   -0.58
PKSM 125.9 171    Sg    9:24:45.85   -0.50
```

253.

```
 2019-03-20  time:  8:54:15.69 UTC  ML= 1.2
   lat: 47.286N  lon: 17.641E  h=  0.0 km
                 erh= 3.4km    erz= 743km
   nr=  5        gap=154       rms=0.34
   Locality: Homokbödöge
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  15.0 211    Pg    8:54:18.60    0.23
                  Sg      54:20.22   -0.24
EGYH  27.5 302    Pg    8:54:20.57   -0.03
PKST  29.9  96    Pg    8:54:21.23    0.20
                  Sg      54:24.07   -1.13
```

254.

```
 2019-03-20  time:  9:05:01.51 UTC  ML= 1.7
   lat: 46.822N  lon: 22.874E  h=  0.0 km
                 erh= 3.1km    erz= 2.2km
   nr= 16        gap=180       rms=0.63
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  12.9 255    Pg    9:05:03.81    0.00
                  Sg      05:06.77    1.17
MARR  24.7 131    PgC   9:05:05.67   -0.25
                  Sg      05:09.70    0.33
SIRR 111.7 237    PgC   9:05:21.02   -0.43
                  Sg      05:34.60   -2.41
ARCR 116.4  75    Sg    9:05:38.10   -0.40
GZR  159.0 183    PnC   9:05:28.96    0.60
                  Sn      05:48.20   -1.11
BZS  165.4 216    Pn    9:05:29.07   -0.09
                  Sn      05:51.36    0.62
LOT  167.7 156    PnC   9:05:30.29    0.84
                  Sn      05:50.80   -0.44
AMBH 172.8 252    Sn    9:05:51.86   -0.52
VOIR 227.9 132    PnC   9:05:37.58    0.62
                  Sn      06:04.20   -0.42
```

255.

```
 2019-03-20  time: 10:25:28.15 UTC  ML= 1.3
   lat: 47.212N  lon: 18.284E  h=  0.0 km
                 erh= 2.0km    erz= 497km
   nr=  8        gap= 99       rms=0.35
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  19.6 285    Pg   10:25:31.39   -0.26
                  Sg      25:34.40    0.02
```

```
PKSG  21.5  22    Pg   10:25:31.84   -0.15
                  Sg      25:34.92   -0.07
NADP  25.7  79    Pg   10:25:32.67   -0.08
                  Sg      25:36.82    0.49
MPLH  56.6 265    Pg   10:25:38.73    0.47
PKSM 114.5 166    Sg   10:26:03.02   -1.53
```

256.

```
 2019-03-20  time: 12:15:27.13 UTC  ML= 1.4
   lat: 45.565N  lon: 17.410E  h= 10.0 km
                 erh= 2.4km    erz= 1.1km
   nr= 11        gap=227       rms=0.27
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  74.8  61    Pg   12:15:40.64    0.03
                  Sg      15:50.70   -0.42
KOVH  79.1  43    Pg   12:15:41.23   -0.14
                  Sg      15:52.89    0.41
BEHE 112.0 334    Sn   12:16:02.27    0.05
PTJ  119.0 288    Sn   12:16:00.97   -2.81*
PKSM 119.6  53    Pn   12:15:47.82    0.02
                  Sn      16:03.67   -0.26
MORH 120.1  53    Pn   12:15:48.23    0.37
                  Sn      16:03.87   -0.15
KOGS 133.0 318    Sn   12:16:06.83   -0.07
```

257.

```
 2019-03-21  time: 10:17:36.07 UTC  ML= 1.8
   lat: 47.292N  lon: 17.663E  h=  0.0 km
                 erh= 2.0km    erz= 3.7km
   nr= 14        gap= 94       rms=0.71
   Locality: Bakonykoppány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  16.5 215    Pg   10:17:39.10    0.09
                  Sg      17:42.54    1.23
PKST  28.3  97    Pg   10:17:41.64    0.51
                  Sg      17:45.31    0.23
EGYH  28.6 299    Pg   10:17:40.82   -0.37
                  Sg      17:45.42    0.25
TIH   46.9 158    Sg   10:17:50.01   -0.99
PKSG  56.1  79    Pg   10:17:45.86   -0.23
SOP   93.9 298    Sg   10:18:04.63   -1.30
A338  95.6  33    Pg   10:17:53.72    0.57
                  Sg      18:06.24   -0.24
KOVH 137.9 166    Sn   10:18:18.04   -1.16
PKSM 141.4 148    Pn   10:18:01.45    0.71
                  Sn      18:17.15   -2.84
```

258.

```
 2019-03-21  time: 11:35:32.02 UTC  ML= 2.2
   lat: 48.227N  lon: 21.230E  h=  0.0 km
                 erh= 1.4km    erz= 3.1km
   nr=  6        gap=155       rms=0.34
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   7.7   5    Pg   11:35:33.50    0.11
                  Sg      35:34.65    0.18
TRPA  97.9  96    Pg   11:35:49.76    0.26
                  Sg      36:02.62   -0.52
PSZ  105.3 251    Sg   11:36:05.48   -0.01
NIE  148.7 333    Sn   11:36:16.58   -0.96
```

259.

```
 2019-03-21  time: 11:37:39.35 UTC  ML= 1.1
   lat: 46.135N  lon: 18.027E  h=  0.0 km
                 erh= 1.6km    erz= 415km
   nr= 11        gap=206       rms=0.34
   Locality: Hetvehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   7.6 133    Pg   11:37:40.84    0.13
                  Sg      37:42.17    0.39
PKSV  32.4 148    Pg   11:37:45.09   -0.06
                  Sg      37:49.34   -0.33
PKSM  48.2  80    Pg   11:37:48.11    0.15
                  Sg      37:54.08   -0.59
MORH  48.5  79    Pg   11:37:47.98   -0.03
                  Sg      37:54.38   -0.38
PKS9  53.9  21    Sg   11:37:57.17    0.69
TIH   85.7 353    Pg   11:37:54.87    0.22
                  Sg      38:05.67   -0.92
```

260.

```
 2019-03-25  time:  9:40:43.83 UTC  ML= 1.5
   lat: 47.889N  lon: 19.186E  h=  0.0 km
                 erh= 3.3km    erz= 778km
   nr=  8        gap=193       rms=0.55
   Locality: Felsőpetény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  13.1 147    Pg    9:40:46.12   -0.06
                  Sg      40:47.87   -0.14
A336  40.7 340    Pg    9:40:51.43    0.33
                  Sg      40:55.72   -1.04
PSZ   53.1  87    Pg    9:40:53.63    0.32
                  Sg      40:59.26   -1.45
KECS 117.1  56   ePg    9:41:05.30    0.56
                 eSg      41:21.00   -0.04
```

261.

```
 2019-03-25  time:  9:47:30.94 UTC  ML= 0.9
   lat: 47.106N  lon: 18.021E  h=  0.0 km
                 erh= 2.9km    erz= 875km
   nr=  9        gap=127       rms=0.65
   Locality: Királyszentistván
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  17.1   4    Pg    9:47:33.70   -0.29
                  Sg      47:35.20   -1.16
MPLH  37.2 281    Pg    9:47:38.10    0.52
                  Sg      47:42.31   -0.45
PKSG  42.4  41    Pg    9:47:39.43    0.92
MORH 109.9 154    Pg    9:47:50.68    0.12
                  Sg      48:05.06   -0.80
PKSM 110.2 154    Pg    9:47:51.02    0.41
                  Sg      48:04.81   -1.15
```

262.

```
 2019-03-25  time: 10:54:51.10 UTC  ML= 1.5
   lat: 47.452N  lon: 18.710E  h=  0.0 km
                 erh= 2.4km    erz= 872km
   nr= 12        gap= 97       rms=0.72
   Locality: Etyek
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
NADP  22.7 198    Pg   10:54:55.49    0.35
                  Sg      54:59.71    1.41
BUD   24.0  81    Sg   10:54:59.12    0.41
```

```
PKSG  25.0 255    Pg   10:54:55.64    0.08
                  Sg      54:59.40    0.37
A269  32.2 310    PgD  10:54:57.46    0.61
PKST  55.3 247    Pg   10:55:01.06    0.08
                  Sg      55:08.67   -0.02
A336  89.6  14    Sg   10:55:18.74   -0.82
MPLH  93.9 251    Sg   10:55:19.59   -1.34
PKB5  95.3 179    Sg   10:55:19.97   -1.40
PKS9 101.6 199    Sg   10:55:22.25   -1.13
```

263.

```
 2019-03-26  time: 10:40:53.77 UTC  ML= 0.7
   lat: 47.203N  lon: 18.276E  h=  0.0 km
                 erh= 0.6km    erz= 169km
   nr=  6        gap=143       rms=0.10
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  19.4 289    Pg   10:40:57.19   -0.04
                  Sg      40:59.93    0.01
PKSG  22.7  22    Pg   10:40:57.73   -0.10
                  Sg      41:01.20    0.20
MORH 113.2 166    Sg   10:41:29.91    0.15
PKSM 113.6 166    Sg   10:41:29.84   -0.04
```

264.

```
 2019-03-26  time: 11:23:08.39 UTC  ML= 1.4
   lat: 47.326N  lon: 18.459E  h=  0.0 km
                 erh= 3.0km    erz= 866km
   nr=  6        gap=115       rms=0.50
   Locality: Pátka
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.9 324    PgU  11:23:09.95   -0.03
                  Sg      23:10.65   -0.57
PKST  33.0 257    Pg   11:23:15.07    0.79
                  Sg      23:18.41   -0.47
PKSM 124.7 174    Sg   11:23:47.53   -0.49
PSZ  126.4  59    Sg   11:23:48.61    0.05
```

265.

```
 2019-03-27  time:  2:56:23.94 UTC  ML= 0.6
   lat: 46.301N  lon: 18.419E  h=  0.6 km
                 erh= 0.7km    erz=37.8km
   nr= 10        gap=115       rms=0.15
   Locality: Györe
   Comments:

sta   dist azm  phase  hr mn  sec     res
MORH  19.8 119    Pg    2:56:27.53    0.05
                  Sg      56:30.17   -0.07
PKSM  19.8 120    Pg    2:56:27.46   -0.02
                  Sg      56:30.17   -0.08
PKB4  25.9  33    Sg    2:56:32.16   -0.02
PKS9  33.5 341    Pg    2:56:30.02    0.09
KOVH  34.2 226    Pg    2:56:30.17    0.12
                  Sg      56:34.35   -0.46
PKB5  40.7  37    Pg    2:56:31.32    0.11
                  Sg      56:36.43   -0.46
```

266.

```
 2019-03-27  time:  9:12:42.21 UTC  ML= 1.5
   lat: 47.512N  lon: 18.368E  h=  0.0 km
                 erh= 4.0km    erz= 684km
   nr=  5        gap=174       rms=0.33
   Locality: Vértessomló
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  13.4 173    Pg    9:12:44.04   -0.57
                  Sg      12:46.89    0.40
PKST  37.7 222    Pg    9:12:49.14    0.19
                  Sg      12:54.32    0.11
A338  56.0 359    Pg    9:12:52.28    0.07
```

267.

```
 2019-03-27  time:  9:27:04.32 UTC  ML= 1.3
   lat: 47.798N  lon: 19.909E  h=  0.0 km
                 erh= ---km    erz= ---km
   nr=  4        gap=274       rms=0.32
   Locality: Gyöngyös
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   13.4 355    PgU   9:27:06.89    0.18
                  Sg      27:08.08   -0.50
PENC  47.0 269    Sg    9:27:19.01   -0.26
A336  83.4 305    Sg    9:27:31.20    0.38
```

268.

```
 2019-03-27  time: 10:06:16.85 UTC  ML= 1.5
   lat: 48.615N  lon: 20.729E  h=  0.0 km
                 erh= 1.6km    erz= 4.7km
   nr= 12        gap= 85       rms=0.58
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.2 231    Pg   10:06:21.28    0.28
                  Sg      06:23.76   -0.47
ABAH  51.8 133    Pg   10:06:26.58    0.47
                  Sg      06:32.93   -0.39
STHS  96.8  23   ePg   10:06:34.30    0.17
                 eSg      06:46.60   -1.00
PSZ   99.2 219    Pg   10:06:35.19    0.62
                  Sg      06:47.47   -0.92
LANS 110.0 303   ePg   10:06:36.90    0.40
                 eSg      06:51.40   -0.42
KOLS 118.9  73   eSg   10:06:54.10   -0.54
A336 134.9 252    Sn   10:06:57.64   -1.68
```

269.

```
 2019-03-27  time: 11:31:38.51 UTC  ML= 1.3
   lat: 45.732N  lon: 17.279E  h= 11.7 km
                 erh= 2.4km    erz= 1.7km
   nr=  9        gap=203       rms=0.32
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP1  68.2 355    Sg   11:32:00.25   -0.25
KOVH  75.0  58    Pg   11:31:52.22    0.16
                  Sg      32:03.20    0.57
PKSV  77.6  77    Pg   11:31:52.39   -0.14
                  Sg      32:02.09   -1.37
PTJ  104.3 280    S*   11:32:11.28   -0.20
PKSM 118.3  63    Pn   11:31:58.96    0.17
                  Sn      32:14.19   -0.42
MORH 118.7  63    Pn   11:31:59.00    0.16
```

270.

```
 2019-03-27  time: 18:10:28.83 UTC  ML= 1.7
   lat: 46.151N  lon: 16.372E  h=  6.6 km
                 erh= 2.3km    erz=17.4km
   nr= 13        gap=142       rms=0.67
   Locality: Croatia
   Comments:
```

```
sta   dist azm  phase  hr mn  sec     res
KOGS  34.3 344    Pg   18:10:35.78    0.71
                  Sg      10:39.65   -0.29
PTJ   42.5 229    Pg   18:10:35.37   -1.15
                  Sg      10:42.27   -0.24
ZAG   46.3 219    Sg   18:10:43.78    0.09
BEHE  47.1  41    Pg   18:10:37.42    0.09
                  Sg      10:44.01    0.05
GOLS  59.9 255   iPg   18:10:40.80    1.21
GCIS  65.8 241   iPg   18:10:40.93    0.30
TMP1  67.1  71    Sg   18:10:48.97   -1.28
GROS  75.4 297    Pg   18:10:42.20   -0.14
                  Sg      10:51.94   -0.94
TMP2  82.5  77    Pg   18:10:43.86    0.25
```

271.

```
 2019-03-28  time:  9:36:58.51 UTC  ML= 1.2
   lat: 47.336N  lon: 18.474E  h=  0.0 km
                 erh= 1.7km    erz= 538km
   nr=  7        gap=115       rms=0.35
   Locality: Lovasberény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.8 315    Pg    9:37:00.10    0.02
                  Sg      37:00.61   -0.71
PKST  34.3 256    Pg    9:37:05.14    0.50
                  Sg      37:09.36   -0.06
PSZ  124.9  59    Sg    9:37:38.35    0.15
MORH 125.2 174    Sg    9:37:38.01   -0.29
PKSM 125.6 174    Sg    9:37:38.18   -0.25
```

272.

```
 2019-03-29  time: 10:36:12.37 UTC  ML= 1.6
   lat: 47.847N  lon: 19.116E  h=  0.0 km
                 erh= 0.9km    erz= 284km
   nr=  9        gap=110       rms=0.21
   Locality: Szendehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  13.9 117    Pg   10:36:15.10    0.24
                  Sg      36:16.96    0.17
A336  43.8 349    Pg   10:36:20.38    0.19
                  Sg      36:26.25   -0.04
PSZ   58.8  82    Pg   10:36:22.79   -0.08
                  Sg      36:30.97   -0.08
A338  60.0 288    Sg   10:36:31.67    0.22
PKSG  74.4 227    Pg   10:36:25.45   -0.21
KECS 124.0  55   ePg   10:36:34.10   -0.42
                 eSg      36:49.20   -2.59*
```

273.

```
 2019-03-30  time: 10:06:36.01 UTC  ML= 1.0
   lat: 46.153N  lon: 18.304E  h=  0.0 km
                 erh= 0.7km    erz= 233km
   nr= 10        gap=112       rms=0.18
   Locality: Vasas
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.4 245    PgU  10:06:38.85   -0.26
                  Sg      06:41.72    0.19
PKSM  26.8  76    Pg   10:06:40.67   -0.13
                  Sg      06:44.38   -0.15
MORH  27.2  75    Pg   10:06:40.87    0.01
                  Sg      06:44.74    0.10
PKSV  29.7 188    Pg   10:06:41.47    0.16
                  Sg      06:45.59    0.15
PKS9  48.3 358    Sg   10:06:51.31   -0.04
PKB1  79.5  28    Sg   10:07:02.26    0.97
```

274.

```
 2019-03-31  time: 10:10:30.31 UTC  ML= 0.4
   lat: 47.330N  lon: 18.279E  h=  4.1 km
                 erh= 3.8km    erz= 4.5km
   nr=  5        gap=196       rms=0.08
   Locality: Söréd
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   4.0 339    Pg   10:10:31.45    0.12
                  Sg      10:32.05   -0.08
PKSG  10.9  51    Pg   10:10:32.35   -0.04
                  Sg      10:33.96   -0.05
PKST  20.1 247    Sg   10:10:36.83   -0.01
```

275.

```
 2019-04-01  time:  0:34:24.25 UTC  ML= 0.1
   lat: 45.948N  lon: 18.544E  h=  0.4 km
                 erh= 2.0km    erz= 125km
   nr=  8        gap=239       rms=0.24
   Locality: Bóly
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  23.6 254    Pg    0:34:28.21   -0.25
                  Sg      34:31.78    0.03
PKSM  30.3  14    Pg    0:34:29.69    0.04
                  Sg      34:33.91    0.04
MORH  30.7  15    Pg    0:34:29.77    0.03
                  Sg      34:33.81   -0.21
KOVH  37.8 294    Pg    0:34:31.48    0.49
                  Sg      34:35.92   -0.33
```

276.

```
 2019-04-02  time:  7:55:38.92 UTC  ML= 1.4
   lat: 48.578N  lon: 20.777E  h=  0.0 km
                 erh= 4.1km    erz= 819km
   nr=  6        gap=186       rms=0.48
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.9 244    Pg    7:55:43.41    0.22
                  Sg      55:45.67   -0.86
ABAH  46.4 132    Pg    7:55:46.85   -0.35
                  Sg      55:53.85    0.18
PSZ   98.3 222    Sg    7:56:11.12    0.95
KOLS 116.9  70    Sg    7:56:16.15    0.07
```

277.

```
 2019-04-02  time:  9:11:19.88 UTC  ML= 0.6
   lat: 47.229N  lon: 18.244E  h=  0.0 km
                 erh= 0.9km    erz= 175km
   nr=  6        gap=198       rms=0.11
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  15.0   5    Pg    9:11:22.64    0.09
                  Sg      11:24.49   -0.14
PKST  16.2 282    Sg    9:11:24.97   -0.06
PKSG  21.2  32    Pg    9:11:23.70    0.03
                  Sg      11:26.75    0.12
NADP  28.5  84    Sg    9:11:28.74   -0.20
```

278.

```
 2019-04-02  time: 10:31:24.53 UTC  ML= 2.5
   lat: 48.247N  lon: 21.294E  h=  0.0 km
                 erh= 3.4km    erz= 3.6km
   nr= 13        gap=104       rms=0.88
   Locality: Erdőbénye
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   6.8 324    Pg   10:31:25.91    0.16
                  Sg      31:27.44    0.74
KECS  65.4 294    Pg   10:31:35.90   -0.31
                  Sg      31:44.06   -1.26
KOLS 105.1  43    Pg   10:31:42.32   -0.98
PSZ  110.5 251    Pg   10:31:44.22   -0.04
                  Sg      31:59.17   -0.48
STHS 130.2 358   ePg   10:31:50.10    2.33
LANS 167.9 307    Sn   10:32:14.44    0.14
A336 170.5 269    Sn   10:32:14.16   -0.73
VYHS 184.2 279    Sn   10:32:18.82    0.89
DRGR 193.8 147    Pn   10:31:57.14    1.41
                  Sn      32:19.57   -0.49
```

279.

```
 2019-04-03  time:  8:40:25.53 UTC  ML= 1.8
   lat: 47.329N  lon: 18.456E  h=  0.0 km
                 erh= 2.5km    erz= 4.2km
   nr=  7        gap=161       rms=0.45
   Locality: Pátka
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.5 324    Pg    8:40:27.29    0.23
                  Sg      40:28.05   -0.19
CSKK  15.3 284    Pg    8:40:28.69    0.43
                  Sg      40:29.94   -0.44
MORH 124.6 173    Sg    8:41:05.22    0.08
PKSM 125.0 174    Sg    8:41:05.07   -0.20
VYHS 132.6  12    Sn    8:41:05.90   -1.58
```

280.

```
 2019-04-03  time:  9:30:30.64 UTC  ML= 1.8
   lat: 46.826N  lon: 17.249E  h=  0.0 km
                 erh= 2.6km    erz= 758km
   nr=  8        gap=167       rms=0.56
   Locality: Rezi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  44.2  30    Pg    9:30:38.21   -0.31
                  Sg      30:44.26   -0.41
BEHE  53.7 223    Pg    9:30:40.31    0.08
                  Sg      30:46.94   -0.76
MORH 126.7 122    Pg    9:30:54.02    0.75
                  Sg      31:11.03    0.11
PKSM 126.8 123    Pg    9:30:53.90    0.62
                  Sg      31:09.81   -1.13
```

281.

```
 2019-04-03  time: 10:23:24.13 UTC  ML= 0.6
   lat: 47.187N  lon: 18.287E  h=  0.0 km
                 erh= 0.7km    erz= 170km
   nr=  7        gap=147       rms=0.11
   Locality: Sárkeszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  19.7 354    Pg   10:23:27.71    0.07
                  Sg      23:30.12   -0.26
PKST  20.7 293    Pg   10:23:27.96    0.13
                  Sg      23:30.62   -0.09
PKSG  24.1  19    Pg   10:23:28.41   -0.02
                  Sg      23:31.82    0.04
MORH 111.4 166    Sg   10:23:59.39   -0.15
```

282.

```
 2019-04-04  time:  8:48:03.17 UTC  ML= 0.7
   lat: 46.234N  lon: 18.243E  h=  0.0 km
                 erh= 1.8km    erz= 229km
   nr=  7        gap=239       rms=0.43
   Locality: Komló
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  19.6 214    Pg    8:48:06.86    0.20
                  Sg      48:09.62    0.23
PKSM  30.8  95    Pg    8:48:08.87    0.19
                  Sg      48:12.48   -0.49
MORH  31.0  94    Pg    8:48:09.02    0.31
                  Sg      48:12.58   -0.45
PKSV  38.4 179    Sg    8:48:13.99   -1.38
```

283.

```
 2019-04-04  time:  9:22:44.71 UTC  ML= 1.3
   lat: 48.572N  lon: 20.749E  h=  0.0 km
                 erh= 2.6km    erz= 3.3km
   nr= 10        gap=186       rms=0.51
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  21.8 243    Pg    9:22:49.30    0.69
                  Sg      22:52.06    0.41
ABAH  47.5 130    Pg    9:22:53.41    0.22
                  Sg      22:59.49   -0.32
PSZ   96.5 221    Pg    9:23:01.21   -0.73
                  Sg      23:14.69   -0.70
LANS 113.9 304   ePg    9:23:05.20    0.14
                 eSg      23:20.20   -0.73
VYHS 141.6 266    Pn    9:23:09.81    0.41
                  Sn      23:28.23   -0.42
```

284.

```
 2019-04-05  time:  6:08:12.02 UTC  ML= 1.0
   lat: 47.156N  lon: 18.190E  h=  0.0 km
                 erh= 1.6km    erz= 177km
   nr=  5        gap=284       rms=0.09
   Locality: ősi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  16.4 314    PgU   6:08:14.98    0.02
                  Sg      08:17.19   -0.05
CSKK  23.7  13    Pg    6:08:16.24   -0.01
                  Sg      08:19.40   -0.15
PKSG  30.3  30    Sg    6:08:21.86    0.20
```

285.

```
 2019-04-05  time:  8:12:45.48 UTC  ML= 1.8
   lat: 47.884N  lon: 19.432E  h=  0.0 km
                 erh= 6.8km    erz=12.6km
   nr= 11        gap=143       rms=1.93
   Locality: Bercel
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  15.3 227    Pg    8:12:47.86   -0.36
                  Sg      12:49.23   -1.12
PSZ   34.8  84    Pg    8:12:51.50   -0.20
                  Sg      12:56.82    0.28
```

A336	50.4	320	Pg	8:12:59.51	5.02
VYHS	81.0	327	Sg	8:13:07.44	-3.78
A338	81.9	280	Sg	8:13:10.44	-1.08
PKSG	95.5	235	Sg	8:13:16.03	0.20
KECS	102.8	50	Sg	8:13:17.91	-0.26
PKST	126.1	237	Sg	8:13:25.11	-0.44
MODS	169.4	289	eSn	8:13:35.50	-0.09

286.

2019-04-05 time: 9:39:50.64 UTC ML= 1.5
lat: 48.489N lon: 18.714E h= 0.0 km
erh= 2.0km erz= 466km
nr= 8 gap=183 rms=0.34
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
VYHS	9.0	86	PgU	9:39:52.12	-0.13
			Sg	39:53.51	0.00
A336	35.4	143	Pg	9:39:57.30	0.33
			Sg	40:02.45	0.55
PENC	88.4	151	Sg	9:40:18.12	-0.62
MODS	107.1	263	ePg	9:40:09.70	-0.07
			eSg	40:25.40	0.71
PSZ	108.3	126	Pg	9:40:09.70	-0.28

287.

2019-04-05 time: 13:52:31.90 UTC ML= 2.4
lat: 46.317N lon: 17.303E h= 10.0 km
erh= 1.4km erz= 1.0km
nr= 49 gap= 63 rms=0.77
Locality: Somogyszob
Comments:

sta	dist	azm	phase	hr mn sec	res
TMP2	8.6	89	Pg	13:52:34.76	0.51
			Sg	52:37.18	1.09
TMP1	8.7	290	Pg	13:52:34.10	-0.17
			Sg	52:36.03	-0.09
A263	36.0	1	Pg	13:52:38.46	-0.12
			Sg	52:43.72	-0.06
A265	39.7	72	Pg	13:52:39.80	0.59
			Sg	52:45.43	0.51
BEHE	44.0	293	Sg	13:52:46.57	0.31
KOVH	66.5	112	Pg	13:52:43.80	-0.11
			Sg	52:51.90	-1.38
TIH	79.0	35	Pg	13:52:45.26	-0.86
			Sg	52:56.78	-0.44
PKS9	80.7	68	Pg	13:52:46.97	0.54
KOGS	82.3	280	Pg	13:52:46.74	0.03
			Sg	52:56.35	-1.91
PKSV	87.4	123	Pg	13:52:47.93	0.31
			Sg	53:00.36	0.48
MPLH	96.6	11	Pg	13:52:48.96	-0.28
			Sg	53:02.08	-0.68
PKB4	102.0	79	Sg	13:53:03.85	-0.62
PKSM	103.8	96	P*	13:52:49.47	-1.03
			S*	53:03.59	-1.42
MORH	104.0	96	P*	13:52:49.52	-1.01
			S*	53:03.52	-1.54
PTJ	113.9	246	Pn	13:52:51.47	-0.38
			Sn	53:05.51	-1.91
PKB5	114.3	74	Pn	13:52:52.50	0.59
			Sn	53:06.98	-0.53
PKST	118.7	28	Pn	13:52:52.18	-0.28
			Sn	53:07.44	-1.05
EGYH	122.4	1	Pn	13:52:53.60	0.69
			Sn	53:09.10	-0.20
PKB1	125.5	66	Pn	13:52:53.50	0.20
			Sn	53:09.63	-0.36
GOLS	134.1	255	ePn	13:52:55.01	0.64
GCIS	138.9	249	iPn	13:52:55.53	0.55
GROS	139.5	277	Pn	13:52:55.92	0.87
NADP	145.0	44	Sn	13:53:15.10	0.78
PKSG	145.5	35	Pn	13:52:57.23	1.44
PKB3	146.0	85	Sn	13:53:15.86	1.31
PKB2	154.0	75	Sn	13:53:18.18	1.85
RONA	171.8	334	Pn	13:52:59.69	0.62
			Sn	53:19.24	-1.03
BLY	174.5	183	Sn	13:53:22.66	1.79
SOKA	178.9	283	Pn	13:53:00.15	0.19
			Sn	53:18.63	-3.22*
OBKA	212.9	276	Pn	13:53:05.50	1.30
			Sn	53:29.87	0.48

288.

2019-04-08 time: 4:54:28.56 UTC ML= 1.8
lat: 48.951N lon: 18.372E h= 10.0 km
erh= 2.6km erz= 2.6km
nr= 25 gap= 79 rms=1.01
Locality: Slovakia
Comments:

sta	dist	azm	phase	hr mn sec	res
VYHS	61.3	146	Pg	4:54:39.20	-0.45
			Sg	54:46.51	-1.78
LANS	83.1	75	Pg	4:54:42.33	-1.18
			Sg	54:52.84	-2.33
SMOL	84.8	235	ePg	4:54:45.20	1.40
			eSg	54:56.60	0.92
OKC	99.9	351	ePg	4:54:46.60	0.12
			eSg	54:58.90	-1.56
MODS	103.1	231	eP*	4:54:47.10	0.05
			eS*	55:00.90	-0.58
A338	104.1	181	P*	4:54:47.03	-0.18
MORC	109.8	327	Pn	4:54:47.65	-0.35
			Sn	55:01.22	-1.95
VRAC	135.7	287	Pn	4:54:51.63	0.39
			Sn	55:08.35	-0.57
KRUC	145.1	275	Pn	4:54:52.24	-0.17
			Sn	55:09.61	-1.41
PENC	145.6	152	Pn	4:54:53.04	0.57
			Sn	55:10.59	-0.54
NIE	150.8	70	Pn	4:54:54.07	0.96
PSZ	160.9	136	Pn	4:54:55.41	1.03
KECS	164.0	109	ePn	4:54:56.50	1.73
			eSn	55:15.00	-0.21
KRLC	170.0	317	ePn	4:54:57.30	1.80
			eSn	55:16.10	-0.42

289.

2019-04-08 time: 8:05:43.61 UTC ML= 1.4
lat: 48.603N lon: 20.751E h= 0.0 km
erh= 1.4km erz= 2.5km
nr= 11 gap=129 rms=0.37
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	23.7	236	Pg	8:05:48.21	0.37
			Sg	05:50.59	-0.55
ABAH	49.7	133	Pg	8:05:52.63	0.14
			Sg	05:59.05	-0.36
PSZ	99.2	220	Pg	8:06:01.66	0.33
			Sg	06:14.79	-0.35
LANS	112.1	303	Pg	8:06:03.85	0.22
			Sg	06:18.89	-0.35
KOLS	117.8	72	Sg	8:06:20.49	-0.55
VYHS	141.9	265	Pn	8:06:08.59	0.25
			Sn	06:26.82	-0.81

290.

```
 2019-04-08  time:  9:12:22.34 UTC  ML= 1.3
   lat: 47.574N  lon: 18.504E  h=  0.0 km
                 erh= 1.5km    erz= 143km
   nr=  7        gap=189       rms=0.10
   Locality: Tarján
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  22.0 203    Pg    9:12:26.24   -0.03
                  Sg      12:29.61    0.27
CSKK  29.8 218    Pg    9:12:27.66    0.00
                  Sg      12:31.61   -0.21
PKST  49.9 225    Sg    9:12:38.24    0.05
VYHS 105.2  14    Pg    9:12:41.12   -0.01
                  Sg      12:55.85    0.06
```

291.

```
 2019-04-09  time:  6:03:45.66 UTC  ML= 1.1
   lat: 47.307N  lon: 18.305E  h=  0.0 km
                 erh= 2.2km    erz= 820km
   nr= 10        gap= 87       rms=0.64
   Locality: Söréd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   7.1 332    Pg    6:03:46.94    0.01
                  Sg      03:47.71   -0.20
PKSG  11.5  35    Pg    6:03:47.55   -0.16
                  Sg      03:48.72   -0.58
PKST  21.1 255    Pg    6:03:49.61    0.17
                  Sg      03:53.15    0.77
NADP  24.3 103    Sg    6:03:55.20    1.81
MORH 124.0 168    Sg    6:04:24.53   -0.56
PKSM 124.4 168    Pg    6:04:07.81   -0.07
                  Sg      04:22.78   -2.43
```

292.

```
 2019-04-09  time:  8:37:33.23 UTC  ML= 1.1
   lat: 48.422N  lon: 18.997E  h=  0.0 km
                 erh= 6.7km    erz= ***km
   nr=  6        gap=157       rms=0.97
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  14.3 304    Pg    8:37:35.18   -0.61
                  Sg      37:38.88    1.09
A336  21.0 180    Pg    8:37:36.16   -0.83
                  Sg      37:41.29    1.37
LANS  88.1  23    Pg    8:37:49.86    0.90
                  Sg      37:59.87   -1.35
```

293.

```
 2019-04-09  time:  9:13:17.01 UTC  ML= 1.3
   lat: 48.361N  lon: 18.514E  h=  0.0 km
                 erh= 1.6km    erz= 552km
   nr= 11        gap=147       rms=0.45
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  28.1  58    Pg    9:13:21.81   -0.21
                  Sg      13:25.73   -0.20
A336  38.7 112    Sg    9:13:29.85    0.54
A338  40.3 197    Pg    9:13:24.61    0.40
                  Sg      13:30.65    0.83
PENC  85.4 138    Sg    9:13:43.96   -0.21
MODS  91.6 271   ePg    9:13:33.70    0.33
                 eSg      13:45.10   -1.04
CSKK 112.6 190    Sg    9:13:51.84   -0.95
PSZ  114.0 116    Pg    9:13:37.17   -0.19
                  Sg      13:52.95   -0.28
```

294.

```
 2019-04-09  time:  9:25:10.79 UTC  ML= 1.4
   lat: 47.890N  lon: 19.181E  h=  0.0 km
                 erh= 4.0km    erz= 812km
   nr=  7        gap=193       rms=0.65
   Locality: Felsőpetény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  13.4 146    Pg    9:25:12.74   -0.44
                  Sg      25:13.59   -1.46
A336  40.5 340    Pg    9:25:18.61    0.60
                  Sg      25:23.96    0.31
PSZ   53.5  87    Pg    9:25:20.89    0.56
                  Sg      25:27.93    0.15
VYHS  71.9 339    Sg    9:25:32.82   -0.81
```

295.

```
 2019-04-09  time:  9:42:15.14 UTC  ML= 1.8
   lat: 47.359N  lon: 18.409E  h=  0.0 km
                 erh= 3.8km    erz= ***km
   nr=  7        gap=129       rms=0.68
   Locality: Gánt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   3.9 339    Pg    9:42:16.47    0.63
CSKK  11.3 272    Pg    9:42:17.78    0.63
NADP  19.4 126    Pg    9:42:18.48   -0.12
                  Sg      42:20.90   -0.40
PKST  30.5 249    Pg    9:42:20.69    0.11
                  Sg      42:23.85   -0.98
A338  73.1 357    Sg    9:42:36.43   -1.94
```

296.

```
 2019-04-10  time:  8:56:10.54 UTC  ML= 1.2
   lat: 46.199N  lon: 18.275E  h=  0.0 km
                 erh= 1.5km    erz= 244km
   nr=  8        gap=219       rms=0.18
   Locality: Komló
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  18.3 228    Pg    8:56:13.93    0.12
                  Sg      56:16.55    0.19
PKSM  28.3  87    Pg    8:56:15.55   -0.03
                  Sg      56:19.74    0.22
MORH  28.5  86    Pg    8:56:15.39   -0.24
                  Sg      56:19.93    0.33
PKSV  34.6 183    Pg    8:56:16.61   -0.10
                  Sg      56:21.33   -0.20
```

297.

```
 2019-04-10  time:  9:27:54.10 UTC  ML= 1.5
   lat: 47.334N  lon: 18.422E  h=  0.0 km
                 erh= 1.5km    erz= 3.3km
   nr= 11        gap= 82       rms=0.50
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   6.8 340    Pg    9:27:55.57    0.25
                  Sg      27:56.16   -0.11
CSKK  12.6 285    Pg    9:27:56.71    0.36
                  Sg      27:57.91   -0.20
NADP  17.1 120    Sg    9:28:01.48    1.94
```

```
PKST  30.5 254    Pg    9:27:59.90    0.35
                  Sg      28:03.64   -0.15
MORH 125.5 172    Sg    9:28:33.47   -0.52
PKSM 125.9 172    Sg    9:28:33.62   -0.50
PSZ  128.3  60    Sg    9:28:34.32   -0.58
VYHS 132.6  14    Sn    9:28:35.17   -0.89
```

298.

```
 2019-04-10  time: 11:03:03.48 UTC  ML= 1.4
   lat: 48.651N  lon: 20.730E  h=  0.0 km
                 erh= 3.6km    erz= 6.9km
   nr=  8        gap=195       rms=0.62
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  26.0 224    Pg   11:03:08.62    0.50
                  Sg      03:11.26   -0.47
ABAH  54.6 136    Pg   11:03:13.79    0.56
                  Sg      03:19.72   -1.12
PSZ  102.4 217    Pg   11:03:21.78    0.01
                  Sg      03:35.39   -0.64
LANS 107.9 301   ePg   11:03:22.00   -0.75
                 eSg      03:33.80   -3.98*
VYHS 140.8 263    Pn   11:03:28.81    0.73
```

299.

```
 2019-04-10  time: 11:09:55.64 UTC  ML= 1.4
   lat: 48.417N  lon: 20.765E  h=  0.0 km
                 erh= 2.7km    erz= 469km
   nr=  5        gap=181       rms=0.21
   Locality: Galvács
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.0 290    Pg   11:09:59.49   -0.07
ABAH  37.6 111    Pg   11:10:02.38    0.02
                  Sg      10:07.33   -0.27
PSZ   85.3 229    Pg   11:10:11.20    0.33
                  Sg      10:22.47   -0.27
```

300.

```
 2019-04-11  time:  4:10:03.22 UTC  ML= 1.3
   lat: 46.842N  lon: 18.893E  h=  8.0 km
                 erh= 1.6km    erz= 1.9km
   nr= 22        gap= 89       rms=0.65
   Locality: Dunaegyháza
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKB1  10.1 230    PgD   4:10:06.24    0.72
                  Sg      10:06.90   -0.41
PKB5  30.0 204    Pg    4:10:09.38    0.61
                  Sg      10:12.72   -0.38
PKS7  30.5  42    PgD   4:10:08.61   -0.25
                  Sg      10:12.33   -0.93
PKB2  32.5 125    Pg    4:10:09.24    0.04
                  Sg      10:13.33   -0.54
NADP  50.7 336    Sg    4:10:18.84   -0.69
PKB3  52.0 154    Pg    4:10:12.74    0.13
PKS9  54.9 239    Pg    4:10:14.02    0.89
                  Sg      10:20.41   -0.45
PKSG  72.0 328    Sg    4:10:25.46   -0.79
MORH  72.2 195    Pg    4:10:16.60    0.40
                  Sg      10:24.73   -1.59
PKSM  72.7 195    Pg    4:10:16.36    0.07
                  Sg      10:25.02   -1.46
KOVH 103.7 216    Pg    4:10:22.26    0.48
                  Sg      10:34.87   -1.40
PKSV 117.0 205    Pn    4:10:24.30    0.48
                  Sn      10:39.13   -0.75
PSZ  141.5  32    Pn    4:10:27.54    0.66
```

301.

```
 2019-04-11  time:  7:08:49.38 UTC  ML= 1.5
   lat: 48.591N  lon: 20.781E  h=  0.0 km
                 erh= 4.0km    erz= 4.0km
   nr=  7        gap=241       rms=0.52
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.9 241    Pg    7:08:53.97    0.14
                  Sg      08:57.24   -0.06
ABAH  47.2 134    Pg    7:08:58.09    0.29
                  Sg      09:03.23   -1.14
PSZ   99.7 221    Pg    7:09:07.48    0.30
                  Sg      09:21.28    0.22
A336 137.8 253    Sn    7:09:31.02   -1.47
```

302.

```
 2019-04-11  time:  8:50:50.13 UTC  ML= 1.5
   lat: 47.212N  lon: 18.286E  h=  0.0 km
                 erh= 1.6km    erz= 4.6km
   nr= 12        gap= 88       rms=0.61
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.9 353    Pg    8:50:53.00   -0.15
                  Sg      50:55.06   -0.44
PKST  19.8 285    Pg    8:50:53.58   -0.08
                  Sg      50:56.49    0.08
PKSG  21.5  22    Sg    8:50:57.20    0.24
NADP  25.6  79    Pg    8:50:55.44    0.74
                  Sg      50:59.05    0.78
MPLH  56.8 265    Pg    8:51:00.86    0.59
PKSM 114.5 166    Sg    8:51:25.24   -1.27
A336 125.5  25    Sg    8:51:29.35   -0.67
KOVH 125.7 187    Sg    8:51:29.56   -0.53
PSZ  144.3  57    Sn    8:51:33.22   -1.45
```

303.

```
 2019-04-11  time:  9:35:19.66 UTC  ML= 0.8
   lat: 47.202N  lon: 18.307E  h=  0.0 km
                 erh= 1.4km    erz= 395km
   nr=  8        gap=150       rms=0.28
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.3 349    Pg    9:35:23.01    0.09
                  Sg      35:25.17   -0.30
PKST  21.6 287    Pg    9:35:23.61    0.09
                  Sg      35:26.37   -0.15
PKSG  22.0  17    Pg    9:35:23.94    0.34
                  Sg      35:26.30   -0.37
MORH 112.6 167    Sg    9:35:55.67    0.21
PKSM 113.0 167    Sg    9:35:54.92   -0.66
```

304.

```
 2019-04-11  time: 11:52:35.05 UTC  ML= 0.9
   lat: 46.126N  lon: 18.093E  h=  0.0 km
                 erh= 1.0km    erz= 231km
   nr=  9        gap=203       rms=0.17
   Locality: Abaliget
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   4.2 172    Pg   11:52:35.76   -0.04
                  Sg      52:36.59    0.21
PKSV  29.1 155    Pg   11:52:39.89   -0.36
```

```
                  Sg      52:44.43    0.13
PKSM  43.5  77    Pg   11:52:42.89    0.08
                  Sg      52:48.55   -0.31
MORH  43.8  77    Pg   11:52:42.93    0.07
                  Sg      52:49.05    0.09
PKS9  53.3  16    Pg   11:52:44.67    0.11
```

305.

```
 2019-04-12  time:  6:20:07.65 UTC  ML= 0.7
   lat: 47.230N  lon: 18.214E  h=  0.0 km
                 erh= 2.6km    erz= 317km
   nr=  6        gap=247       rms=0.19
   Locality: Bakonykúti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  14.0 283    Pg    6:20:09.98   -0.17
                  Sg      20:12.11    0.01
CSKK  15.2  13    Pg    6:20:10.71    0.34
                  Sg      20:12.29   -0.19
PKSG  22.4  37    Pg    6:20:11.64   -0.01
                  Sg      20:14.70   -0.07
```

306.

```
 2019-04-12  time:  8:07:35.66 UTC  ML= 2.0
   lat: 47.332N  lon: 18.410E  h=  0.0 km
                 erh= 2.2km    erz= 781km
   nr= 10        gap=132       rms=0.61
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   6.8 347    Pg    8:07:36.84   -0.05
                  Sg      07:36.94   -0.90
CSKK  11.9 287    Pg    8:07:38.12    0.34
PKST  29.6 254    Pg    8:07:41.65    0.70
                  Sg      07:45.31    0.24
PKS7  65.1 119    Pg    8:07:47.71    0.43
                  Sg      07:56.45    0.10
MPLH  68.3 255    Sg    8:07:55.94   -1.45
MORH 125.3 172    Sg    8:08:14.89   -0.61
PKSM 125.7 172    Sg    8:08:14.68   -0.95
```

307.

```
 2019-04-12  time:  9:43:14.80 UTC  ML= 1.1
   lat: 46.029N  lon: 18.120E  h=  0.0 km
                 erh= 1.7km    erz= 411km
   nr=  8        gap=200       rms=0.29
   Locality: Pellérd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   6.8 347    Pg    9:43:15.87   -0.14
                  Sg      43:16.97    0.01
PKSV  18.7 147    Sg    9:43:20.29   -0.44
PKSM  45.1  63    Pg    9:43:23.20    0.34
                  Sg      43:29.12   -0.03
MORH  45.5  63    Pg    9:43:23.20    0.27
                  Sg      43:29.28    0.01
PKB5  78.8  37    Sg    9:43:39.18   -0.67
```

308.

```
 2019-04-12  time: 10:00:41.76 UTC  ML= 1.4
   lat: 48.155N  lon: 16.914E  h=  0.0 km
                 erh= 3.1km    erz= 3.8km
   nr=  9        gap=151       rms=0.66
   Locality: Austria
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CONA  82.4 252    Pg   10:00:56.85    0.37
                  Sg      01:07.90   -0.06
KRUC 107.9 339    Pg   10:01:01.67    0.64
                  Sg      01:15.63   -0.42
VRAC 130.4 350    Pg   10:01:05.04   -0.01
                  Sg      01:21.10   -2.12
ARSA 144.9 226    Sn   10:01:25.42   -1.03
VYHS 147.4  75    Pn   10:01:07.75    0.57
                  Sn      01:26.33   -0.68
```

309.

```
 2019-04-12  time: 10:18:25.21 UTC  ML= 1.9
   lat: 48.266N  lon: 21.208E  h=  0.0 km
                 erh= 2.5km    erz= 437km
   nr=  7        gap=202       rms=0.29
   Locality: Abaújszántó
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   4.1  34    Pg   10:18:25.89   -0.04
                  Sg      18:27.10    0.60
KECS  58.8 294    Sg   10:18:43.72   -0.16
PSZ  105.2 248    Pg   10:18:43.87   -0.13
                  Sg      18:58.73    0.07
KOLS 108.0  47    Pg   10:18:44.72    0.22
                  Sg      18:58.83   -0.72
```

310.

```
 2019-04-12  time: 10:31:58.66 UTC  ML= 1.3
   lat: 46.117N  lon: 18.063E  h=  0.0 km
                 erh= 1.9km    erz= 380km
   nr= 10        gap=228       rms=0.30
   Locality: Bükkösd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   4.2 138    Pg   10:31:59.40   -0.02
                  Sg      32:00.66    0.66
PKSV  29.3 150    Pg   10:32:03.82   -0.07
                  Sg      32:08.09    0.12
PKSM  45.9  77    Pg   10:32:06.58   -0.27
                  Sg      32:13.11   -0.13
MORH  46.2  76    Pg   10:32:06.88   -0.03
                  Sg      32:13.01   -0.33
PKS9  54.8  18    Sg   10:32:16.37    0.28
PKB5  74.2  44    Sg   10:32:24.35    2.11
```

311.

```
 2019-04-13  time:  4:04:02.27 UTC  ML= 1.5
   lat: 48.785N  lon: 19.863E  h= 10.0 km
                 erh= 2.7km    erz= 3.0km
   nr= 15        gap= 93       rms=0.96
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
LANS  49.9 325    Sg    4:04:18.14   -0.30
KECS  56.9 126    Pg    4:04:13.36    0.78
                  Sg      04:19.89   -0.73
NIE   77.8  25    Pg    4:04:16.74    0.47
                  Sg      04:25.12   -2.07
VYHS  82.3 247    Pg    4:04:17.50    0.42
                  Sg      04:26.72   -1.91
A336  88.6 226    Pg    4:04:18.79    0.60
                  Sg      04:29.10   -1.50
PSZ   96.4 179    Pg    4:04:20.35    0.77
                  Sg      04:31.89   -1.19
ABAH 115.3 118    Pn    4:04:22.76    0.36
                  Sn      04:37.22   -0.88
PENC 118.7 201    Sn    4:04:38.09   -0.77
OJC  159.6 358    Sn    4:04:49.84    1.90
```

312.

```
 2019-04-15  time:  3:42:28.22 UTC  ML= 2.1
   lat: 48.992N  lon: 18.442E  h=  5.7 km
                 erh= 2.2km    erz= 2.3km
   nr= 23        gap=108       rms=0.86
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
VYHS  62.5 152    Pg    3:42:39.92    0.49
                  Sg      42:46.87   -1.29
LANS  77.0  77    Pg    3:42:40.51   -1.51
SMOL  91.5 235   eSg    3:42:56.80   -0.56
A337  96.0 210    Pg    3:42:45.82    0.42
A338 108.8 183    Pg    3:42:47.73    0.06
MORC 109.1 323    Pg    3:42:48.45    0.73
                  Sg      43:03.00    0.06
MODS 109.9 231   ePg    3:42:47.70   -0.17
                 eSg      43:01.40   -1.80
SRO  131.4 184   ePn    3:42:51.90    0.99
                 eSn      43:08.10   -0.51
VRAC 139.4 285    Pn    3:42:52.15    0.24
NIE  144.4  71    Pn    3:42:52.87    0.33
                  Sn      43:10.43   -1.08
PENC 147.3 155    Sn    3:43:11.63   -0.52
KRUC 149.9 273    Pn    3:42:53.01   -0.21
                  Sn      43:10.14   -2.58
KECS 160.6 111   ePn    3:42:55.90    1.34
                 eSn      43:15.80    0.70
RONA 214.3 228    Pn    3:43:02.71    1.45
CONA 224.5 238    Pn    3:43:03.76    1.24
                  Sn      43:27.59   -1.69
```

313.

```
 2019-04-15  time:  8:37:25.32 UTC  ML= 1.5
   lat: 48.567N  lon: 20.747E  h=  0.0 km
                 erh= 2.6km    erz= 3.9km
   nr= 10        gap= 92       rms=0.73
   Locality: Komjáti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  21.4 244    Pg    8:37:29.26    0.11
                  Sg      37:31.79   -0.34
ABAH  47.2 130    Pg    8:37:34.46    0.71
                  Sg      37:39.83   -0.50
PSZ   96.0 221    Pg    8:37:43.17    0.72
                  Sg      37:55.32   -0.50
NIE  100.0 341    Pg    8:37:43.93    0.76
KOLS 119.4  70    Sg    8:38:01.54   -1.72
VYHS 141.4 267    Pn    8:37:49.59   -0.39
                  Sn      38:07.88   -1.34
```

314.

```
 2019-04-15  time:  8:42:17.50 UTC  ML= 1.4
   lat: 47.362N  lon: 18.395E  h=  0.0 km
                 erh= 0.8km    erz= 232km
   nr=  8        gap=123       rms=0.17
   Locality: Gánt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   3.3 355    Pg    8:42:18.07   -0.03
                  Sg      42:18.45   -0.11
CSKK  10.1 271    Pg    8:42:19.38    0.07
                  Sg      42:20.98    0.25
NADP  20.5 125    Sg    8:42:23.92   -0.09
PKST  29.6 247    Pg    8:42:22.89    0.11
                  Sg      42:26.46   -0.44
VYHS 130.1  15   ePg    8:42:40.80    0.06
                 eSg      42:57.20   -1.66*
```

315.

```
 2019-04-15  time: 10:10:31.12 UTC  ML= 1.2
   lat: 47.187N  lon: 18.312E  h=  0.0 km
                 erh= 2.2km    erz= 280km
   nr=  6        gap=254       rms=0.17
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  20.0 349    Pg   10:10:34.51   -0.18
                  Sg      10:37.44   -0.04
PKST  22.5 291    Pg   10:10:35.03   -0.12
                  Sg      10:38.27   -0.02
PKSG  23.5  15    Sg   10:10:38.87    0.26
MPLH  58.6 268    Pg   10:10:41.80    0.21
```

316.

```
 2019-04-15  time: 22:14:40.54 UTC  ML= 2.2
   lat: 45.586N  lon: 18.514E  h=  7.4 km
                 erh= 1.4km    erz= 1.0km
   nr= 22        gap=112       rms=0.36
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  39.3 329    Pg   22:14:47.92    0.23
                  Sg      14:52.97   -0.29
KOVH  64.4 330    PgD  22:14:52.16    0.03
                  Sg      14:59.78   -1.38
PKSM  70.3   8    PgD  22:14:53.54    0.38
                  Sg      15:02.19   -0.81
MORH  70.7   8    PgD  22:14:53.60    0.36
                  Sg      15:02.48   -0.67
PKS9 112.7 351    Pn   22:15:00.63   -0.06
                  Sn      15:16.66    0.26
FRGS 113.2 116    Pn   22:15:00.81    0.06
                  Sn      15:15.87   -0.64
PKB5 113.5   9    PnD  22:15:00.61   -0.17
                  Sn      15:16.09   -0.47
PKS2 114.3  28    PnD  22:15:01.26    0.37
TMP2 117.8 314    PnD  22:15:01.28   -0.04
TMP1 132.3 309    Pn   22:15:02.78   -0.35
                  Sn      15:21.30    0.55
PKB1 134.9   9    Pn   22:15:03.37   -0.09
                  Sn      15:22.44    1.11
BLY  140.0 228    Pn   22:15:04.26    0.18
TIH  153.7 342    Pn   22:15:05.73   -0.07
```

317.

```
 2019-04-16  time:  8:17:36.28 UTC  ML= 1.1
   lat: 45.879N  lon: 18.381E  h=  0.0 km
                 erh= 3.1km    erz= 368km
   nr=  9        gap=247       rms=0.28
   Locality: Kisharsány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSV  10.1 276    PgU   8:17:37.94   -0.13
                  Sg      17:39.44   -0.04
KOVH  31.9 317    Pg    8:17:42.10    0.14
                  Sg      17:45.12   -1.28
PKSM  42.1  29    Pg    8:17:43.68   -0.11
                  Sg      17:49.67    0.02
MORH  42.6  29    PgU   8:17:43.68   -0.20
                  Sg      17:49.71   -0.10
PKS9  79.1 354    Pg    8:17:50.92    0.53
```

318.

```
 2019-04-16  time:  9:08:03.00 UTC  ML= 1.5
   lat: 48.585N  lon: 20.718E  h=  0.0 km
                 erh= 2.2km    erz= 2.8km
   nr= 13        gap=107       rms=0.62
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  20.6 237    Pg    9:08:07.11    0.43
                  Sg      08:09.72    0.18
ABAH  50.2 130    Pg    9:08:12.03    0.06
                  Sg      08:18.20   -0.77
PSZ   96.1 220    Pg    9:08:20.46    0.29
                  Sg      08:33.07   -0.49
STHS 100.1  23   ePg    9:08:22.00    1.12
                 eSg      08:32.10   -2.73*
LANS 111.2 304   ePg    9:08:22.40   -0.46
                 eSg      08:36.70   -1.65
A336 133.2 253    Sn    9:08:43.76   -1.32
VYHS 139.3 266    Pn    9:08:27.59    0.18
                  Sn      08:46.42   -0.03
```

319.

```
 2019-04-16  time:  9:17:06.26 UTC  ML= 2.1
   lat: 45.524N  lon: 17.322E  h= 10.0 km
                 erh= 2.9km    erz= 2.3km
   nr= 18        gap=126       rms=0.75
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  83.0  61    Pg    9:17:22.08    0.90
                  Sg      17:31.44   -1.38
BLY   86.9 187    Pg    9:17:21.78   -0.09
KOVH  87.1  44    Pg    9:17:21.60   -0.31
TMP2  88.5   5    Pg    9:17:21.77   -0.39
TMP1  91.5 354    Pg    9:17:23.26    0.56
                  Sg      17:33.13   -2.39
BEHE 113.3 338    Pn    9:17:26.64    0.50
                  Sn      17:41.61   -0.05
PTJ  114.1 291    Pn    9:17:25.71   -0.53
                  Sn      17:40.39   -1.44
PKSM 127.8  53    Pn    9:17:27.83   -0.12
                  Sn      17:43.97   -0.89
MORH 128.2  53    Pn    9:17:28.33    0.33
KOGS 132.1 321    Sn    9:17:45.12   -0.69
CRES 149.2 283    Pn    9:17:32.16    1.55
                  Sn      17:49.58   -0.03
TIH  159.1  16    Sn    9:17:52.55    0.73
```

320.

```
 2019-04-16  time:  9:48:45.85 UTC  ML= 1.6
   lat: 47.318N  lon: 18.402E  h=  0.0 km
                 erh= 3.3km    erz= 5.9km
   nr=  9        gap=124       rms=0.70
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.3 354    PgU   9:48:47.28   -0.05
                  Sg      48:47.83   -0.66
CSKK  11.8 295    Pg    9:48:48.66    0.70
                  Sg      48:49.91    0.31
NADP  17.7 112    Sg    9:48:54.05    2.59
MORH 123.9 171    Sg    9:49:24.43   -0.79
PKSM 124.3 172    Pg    9:49:07.71   -0.33
                  Sg      49:25.43    0.08
PSZ  130.6  59    Sn    9:49:26.49   -0.87
```

321.

```
 2019-04-16  time:  9:51:55.99 UTC  ML= 2.9
   lat: 48.294N  lon: 16.052E  h= 10.0 km
                 erh= 2.0km    erz= 1.8km
   nr= 42        gap= 87       rms=1.04
   Locality: Austria
   Comments:

sta   dist azm  phase  hr mn  sec     res
CONA  43.1 199    PgD   9:52:03.89    0.00
                  Sg      52:09.43   -0.61
SOP   77.7 151    PgD   9:52:10.11    0.12
                  Sg      52:19.93   -0.97
KRUC  89.1  17    PgD   9:52:11.38   -0.61
                  Sg      52:21.88   -2.60
MODS  91.3  84   ePg    9:52:13.40    1.00
                 eSg      52:25.20    0.01
TREC 118.8 340   ePn    9:52:15.80   -0.76
                 eSn      52:29.20   -3.40
VRAC 119.6  19    PnD   9:52:16.24   -0.42
                  Sn      52:30.64   -2.15
ARSA 122.6 199    PnD   9:52:16.61   -0.42
                  Sn      52:31.02   -2.43
EGYH 136.7 135    Sn    9:52:36.92    0.34
A338 174.0 100    Sn    9:52:45.19    0.34
SRO  176.9 108    Sn    9:52:45.37   -0.13
ZVC  186.6 313   ePn    9:52:25.60    0.59
                 eSn      52:47.20   -0.45
PKST 188.0 128    Sn    9:52:47.24   -0.72
PERS 197.4 201    Pn    9:52:28.00    1.64
MORC 197.7  33    Pn    9:52:27.36    0.96
                  Sn      52:49.93   -0.18
GOPC 202.4 333   ePn    9:52:27.60    0.61
                 eSn      52:50.70   -0.47
KHC  204.4 297   ePn    9:52:28.00    0.76
                 eSn      52:51.90    0.29
KRLC 205.1  15   ePn    9:52:28.80    1.47
                 eSn      52:52.10    0.34
VYHS 207.4  84    Pn    9:52:27.98    0.37
PRU  218.3 330   ePn    9:52:29.50    0.54
                 eSn      52:54.30   -0.38
A336 219.0  92    Pn    9:52:29.88    0.83
OBKA 228.6 210    Pn    9:52:31.60    1.35
DPC  229.5   5   ePn    9:52:33.20    2.83
                 eSn      53:00.50    3.32
PRA  230.1 329   eSn    9:52:57.70    0.39
UPC  246.2 359   ePn    9:52:36.20    3.76
                 eSn      53:04.40    3.53*
LANS 268.8  69   ePn    9:52:36.50    1.23
                 eSn      53:06.40    0.50
CRNS 281.0 209   ePn    9:52:38.24    1.45
KECS 329.1  86   ePn    9:52:43.90    1.12*
                 eSn      53:19.00   -0.28*
```

322.

```
 2019-04-17  time:  7:24:07.20 UTC  ML= 1.0
   lat: 47.888N  lon: 19.415E  h=  0.0 km
                 erh= 2.9km    erz= 992km
   nr=  9        gap=138       rms=0.74
   Locality: Bercel
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  14.7 223    Pg    7:24:09.29   -0.54
                  Sg      24:12.15    0.27
PSZ   36.0  85    Pg    7:24:13.51   -0.12
                  Sg      24:18.78    0.13
A336  49.3 321    Sg    7:24:22.10   -0.79
VYHS  80.0 327    Pg    7:24:22.70    1.22
                  Sg      24:31.69   -0.93
KECS 103.5  50   ePg    7:24:26.30    0.61
                 eSg      24:38.10   -2.01
```

323.

```
 2019-04-17  time:  9:30:56.33 UTC  ML= 1.5
   lat: 48.588N  lon: 20.741E  h=  0.0 km
                 erh= 1.5km    erz= 2.0km
   nr= 12        gap= 89       rms=0.46
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.2 238    Pg    9:31:00.84    0.54
                  Sg      31:03.55    0.16
ABAH  49.1 131    Pg    9:31:05.51    0.40
                  Sg      31:11.03   -0.92
PSZ   97.5 220    Pg    9:31:13.59   -0.15
                  Sg      31:26.90   -0.42
STHS  99.2  22   ePg    9:31:14.00   -0.05
                 eSg      31:25.50   -2.37*
LANS 112.4 304    Pg    9:31:16.53    0.12
KOLS 119.0  71   eSg    9:31:34.40    0.24
A336 134.9 253    Sn    9:31:37.92   -0.87
VYHS 141.1 266    Pn    9:31:21.30    0.34
                  Sn      31:39.27   -0.90
```

324.

```
 2019-04-17  time: 11:16:13.73 UTC  ML= 1.5
   lat: 47.914N  lon: 20.168E  h=  0.0 km
                 erh= 3.7km    erz= 655km
   nr=  7        gap=209       rms=0.43
   Locality: Sirok
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   20.4 271    Pg   11:16:17.43    0.05
                  Sg      16:20.51    0.29
KECS  67.5  20    Sg   11:16:35.24    0.04
ABAH  90.4  62    Sg   11:16:42.62    0.15
A336  94.0 292    Pg   11:16:30.21   -0.31
                  Sg      16:44.37    0.75
VYHS 118.1 303    Sg   11:16:50.05   -1.23
```

325.

```
 2019-04-18  time:  8:58:23.13 UTC  ML= 1.6
   lat: 47.845N  lon: 19.109E  h=  0.0 km
                 erh= 2.1km    erz= 2.8km
   nr= 10        gap=178       rms=0.33
   Locality: Szendehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  14.3 115    Pg    8:58:25.85    0.17
                  Sg      58:27.79    0.12
A336  43.9 349    Pg    8:58:31.45    0.47
                  Sg      58:37.12    0.02
PSZ   59.3  82    Pg    8:58:33.53   -0.19
                  Sg      58:41.37   -0.61
VYHS  75.0 344    Pg    8:58:36.55    0.03
                  Sg      58:46.44   -0.52
KECS 124.6  55   ePg    8:58:45.70    0.32
                 eSg      59:00.60   -2.13*
MODS 148.5 293   eSn    8:59:08.10   -0.52
```

326.

```
 2019-04-18  time: 12:49:04.84 UTC  ML= 1.4
   lat: 47.208N  lon: 19.085E  h=  0.0 km
                 erh= 4.3km    erz= 623km
   nr=  8        gap=201       rms=0.45
   Locality: Áporka
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKS7  18.8 162    Pg   12:49:08.68    0.48
                  Sg      49:10.04   -0.78
PKB2  60.5 169    Pg   12:49:15.81    0.16
PSZ   99.7  38    Pg   12:49:22.82    0.17
                  Sg      49:35.83   -0.72
MORH 115.3 197    Pg   12:49:25.63    0.19
PKSM 115.8 197    Pg   12:49:25.58    0.05
                  Sg      49:40.49   -1.17
```

327.

```
 2019-04-19  time: 10:51:58.16 UTC  ML= 1.1
   lat: 45.672N  lon: 17.268E  h=  9.6 km
                 erh= 2.2km    erz= 0.6km
   nr=  8        gap=342       rms=0.11
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOVH  79.5  54    Pg   10:52:12.45    0.00
                  Sg      52:23.56   -0.04
PKSV  80.2  73    Pg   10:52:12.45   -0.14
                  Sg      52:24.10    0.25
PKSM 122.3  61    Pn   10:52:19.28    0.08
                  Sn      52:35.64    0.03
MORH 122.7  60    Pn   10:52:19.31    0.06
                  Sn      52:35.54   -0.16
```

328.

```
 2019-04-20  time:  1:21:06.31 UTC  ML= 0.1
   lat: 47.391N  lon: 18.229E  h= 10.0 km
                 erh= 5.7km    erz= 2.0km
   nr=  6        gap=225       rms=0.15
   Locality: Mór
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   4.0 143    PgU   1:21:08.38    0.15
                  Sg      21:09.63   -0.10
PKSG  12.2  90    Pg    1:21:09.18    0.05
                  Sg      21:10.81   -0.53
PKST  20.8 225    Pg    1:21:10.42   -0.01
                  Sg      21:13.61   -0.03
```

329.

```
 2019-04-20  time: 20:18:54.48 UTC  ML= 0.9
   lat: 47.411N  lon: 18.343E  h=  5.1 km
                 erh= 1.2km    erz= 0.7km
   nr=  6        gap=247       rms=0.03
   Locality: Gánt
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSG   4.2 121    PgD  20:18:55.66    0.00
                  Sg      18:56.58    0.00
CSKK   8.2 229    Pg   20:18:56.24    0.03
                  Sg      18:57.52   -0.04
PKST  28.9 234    Pg   20:18:59.69   -0.03
                  Sg      19:03.84    0.04
```

330.

```
 2019-04-22  time:  7:56:15.69 UTC  ML= 1.4
   lat: 48.302N  lon: 19.371E  h=  7.7 km
                 erh= 2.0km    erz= 2.4km
   nr= 12        gap=138       rms=0.59
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
VYHS  45.0 298    PgU   7:56:24.08    0.24
```

```
                  Sg      56:29.95   -0.24
PENC  57.3 187    Pg    7:56:26.49    0.47
                  Sg      56:33.74   -0.33
PSZ   57.8 138    Pg    7:56:26.72    0.61
                  Sg      56:34.00   -0.24
KECS  85.0  76    Pg    7:56:30.71   -0.22
                  Sg      56:41.67   -1.14
SRO   95.8 235    Sg    7:56:45.07   -1.16
PKSG 125.0 216    Sn    7:56:53.70   -0.52
ABAH 138.7  90    Pn    7:56:39.95    0.91
                  Sn      56:56.77   -0.47
```

331.

```
 2019-04-23  time:  8:02:43.39 UTC  ML= 1.0
   lat: 47.108N  lon: 18.041E  h=  0.0 km
                 erh= 1.3km    erz= 355km
   nr=  7        gap=125       rms=0.23
   Locality: Királyszentistván
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  16.8 358    Pg    8:02:46.03   -0.36
                  Sg      02:48.59   -0.14
CSKK  32.9  30    Sg    8:02:53.96    0.11
MPLH  38.7 280    Sg    8:02:56.00    0.32
PKSG  41.2  40    Pg    8:02:51.05    0.30
MORH 109.4 155    Pg    8:03:02.81   -0.11
PKSM 109.7 155    Pg    8:03:02.98    0.01
```

332.

```
 2019-04-23  time:  8:26:09.07 UTC  ML= 1.8
   lat: 48.270N  lon: 21.238E  h=  0.0 km
                 erh= 4.0km    erz= 3.8km
   nr=  9        gap=203       rms=0.75
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  60.6 293    Pg    8:26:20.12    0.23
                  Sg      26:27.90   -0.43
KOLS 106.1  46    Pg    8:26:28.51    0.48
                  Sg      26:42.46   -0.35
PSZ  107.5 249    Pg    8:26:29.06    0.80
                  Sg      26:42.07   -1.16
STHS 127.5   0   eSg    8:26:48.80   -0.81
A336 166.4 269    Sn    8:26:59.43    0.92
VYHS 179.7 278   eSn    8:27:00.00   -1.47
```

333.

```
 2019-04-23  time:  9:10:33.85 UTC  ML= 1.2
   lat: 47.134N  lon: 18.037E  h=  0.0 km
                 erh= 1.7km    erz= 629km
   nr= 11        gap=120       rms=0.50
   Locality: Hajmáskér
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  13.9 359    Pg    9:10:36.01   -0.33
                  Sg      10:38.32    0.04
CSKK  30.6  34    Sg    9:10:43.49   -0.10
MPLH  37.9 276    Pg    9:10:40.83    0.21
                  Sg      10:45.60   -0.31
PKSG  39.3  43    Pg    9:10:41.18    0.32
                  Sg      10:46.20   -0.13
MORH 112.1 156    Pg    9:10:54.31    0.43
                  Sg      11:08.12   -1.37
PKSM 112.4 156    Pg    9:10:54.43    0.50
                  Sg      11:08.04   -1.55
```

334.

```
 2019-04-23  time: 20:48:47.29 UTC  ML= 1.2
   lat: 47.563N  lon: 18.921E  h= 12.1 km
                 erh= 2.4km    erz= 1.9km
   nr= 17        gap=112       rms=0.82
   Locality: Solymár
   Comments:

sta   dist azm  phase  hr mn  sec     res
BUD   11.8 139    Pg   20:48:50.51    0.21
                  Sg      48:51.99   -0.66
A270  32.2  13    Pg   20:48:54.57    1.14
                  Sg      48:58.19   -0.04
PENC  37.1  47    Pg   20:48:54.89    0.64
NADP  40.9 214    Pg   20:48:55.53    0.62
                  Sg      49:00.27   -0.59
PKSG  44.3 245    Sg   20:49:01.90    0.03
A336  74.7   4    Pg   20:49:01.50    0.69
                  Sg      49:10.19   -1.17
A267  76.2 206    Sg   20:49:10.61   -1.19
PSZ   83.0  62    Sg   20:49:12.84   -1.12
PKB2 101.8 166    S*   20:49:18.56   -0.93
VYHS 103.7 357    S*   20:49:18.65   -1.37
PKB5 108.5 187    Sn   20:49:20.09   -1.04
PKB3 128.3 171    Sn   20:49:26.05    0.52
MORH 151.2 188    Sn   20:49:31.65    1.04
```

335.

```
 2019-04-24  time:  9:19:32.59 UTC  ML= 0.7
   lat: 47.212N  lon: 18.273E  h=  0.0 km
                 erh= 0.5km    erz=62.3km
   nr=  5        gap=262       rms=0.03
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.9 357    Pg    9:19:35.63    0.03
                  Sg      19:37.94    0.00
PKST  18.8 286    Pg    9:19:35.96    0.02
                  Sg      19:38.54   -0.02
PKSG  21.9  24    Pg    9:19:36.46   -0.04
```

336.

```
 2019-04-24  time:  9:32:44.48 UTC  ML= 1.5
   lat: 48.431N  lon: 19.523E  h=  0.0 km
                 erh= 2.0km    erz= 5.5km
   nr= 13        gap= 79       rms=0.76
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A336  44.6 240    Pg    9:32:52.71    0.26
                  Sg      32:58.94    0.27
VYHS  51.3 278    Pg    9:32:53.92    0.28
                  Sg      33:00.24   -0.54
PSZ   63.4 154    Pg    9:32:57.03    1.23
                  Sg      33:04.46   -0.17
PENC  73.5 194    Sg    9:33:07.37   -0.46
LANS  80.1 357    Pg    9:32:59.34    0.55
                  Sg      33:09.28   -0.66
A338  98.5 242    Sg    9:33:14.69   -1.10
NIE  124.2  28    Sg    9:33:22.42   -1.53
ABAH 128.1  97    Sg    9:33:23.82   -1.38
MODS 166.4 268   eSn    9:33:34.40    0.47
```

337.

2019-04-24 time: 14:04:11.02 UTC ML= 1.2
lat: 47.367N lon: 18.290E h= 9.2 km
erh= 1.8km erz= 1.2km
nr= 8 gap=171 rms=0.18
Locality: Csókakő
Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	2.2	259	PgU	14:04:12.66	-0.05
			Sg	04:13.21	-0.81
PKSG	8.1	70	Pg	14:04:13.36	0.15
			Sg	04:14.76	-0.15
PKST	22.7	238	Pg	14:04:15.46	0.06
			Sg	04:18.92	0.11
NADP	27.6	116	Sg	14:04:20.39	0.12
PKSM	131.2	168	Sn	14:04:50.36	-0.21

338.

2019-04-24 time: 19:32:53.22 UTC ML= 1.5
lat: 46.318N lon: 19.852E h= 23.6 km
erh= 4.9km erz= 3.7km
nr= 14 gap=176 rms=0.63
Locality: Üllés
Comments:

sta	dist	azm	phase	hr mn sec	res
PKS6	38.3	325	PgU	19:33:01.30	0.26
			Sg	33:07.52	0.39
PKB3	51.9	283	Pg	19:33:03.35	0.31
			Sg	33:09.03	-1.67
PKS2	52.8	292	Pg	19:33:03.66	0.49
			Sg	33:10.21	-0.73
AMBH	67.4	87	Pg	19:33:05.35	-0.02
			Sg	33:14.05	-0.80
PKB5	91.1	290	Sn	19:33:20.94	0.08
MORH	93.8	263	Pn	19:33:09.61	0.53
			Sn	33:21.95	0.50
PKSM	94.1	263	Pn	19:33:09.68	0.56
			Sn	33:20.89	-0.62
PKB1	96.4	303	Pn	19:33:08.19	-1.22

339.

2019-04-25 time: 7:50:13.35 UTC ML= 1.5
lat: 48.597N lon: 20.751E h= 0.0 km
erh= 4.0km erz= 4.8km
nr= 8 gap=149 rms=0.60
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	23.3	237	Pg	7:50:17.61	0.10
			Sg	50:20.88	0.12
PSZ	98.7	220	Pg	7:50:31.52	0.55
			Sg	50:43.37	-1.35
LANS	112.5	303	Pg	7:50:33.58	0.14
KOLS	118.0	72	eSg	7:50:50.40	-0.45
VYHS	141.9	265	Pn	7:50:38.45	0.38
			Sn	50:55.67	-1.68

340.

2019-04-25 time: 8:03:42.23 UTC ML= 1.6
lat: 47.860N lon: 19.156E h= 0.0 km
erh= 1.5km erz= 421km
nr= 8 gap=131 rms=0.30
Locality: Ősagárd
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
A270	10.4	261	Pg	8:03:43.88	-0.20
			Sg	03:45.42	-0.11
PENC	12.2	129	Pg	8:03:44.47	0.06
A336	43.1	344	Pg	8:03:50.12	0.20
			Sg	03:56.00	0.07
PSZ	55.6	83	Sg	8:03:58.59	-1.33
VYHS	74.4	341	Pg	8:03:55.85	0.34
			Sg	04:05.45	-0.42

341.

2019-04-25 time: 8:39:10.05 UTC ML= 0.6
lat: 47.311N lon: 18.327E h= 0.0 km
erh= 1.8km erz= 281km
nr= 5 gap=227 rms=0.13
Locality: Magyaralmás
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	7.6	319	Pg	8:39:11.30	-0.11
			Sg	39:12.46	-0.01
PKSG	10.2	28	Pg	8:39:11.80	-0.07
			Sg	39:13.51	0.23
PKST	22.9	255	Sg	8:39:17.50	0.18

342.

2019-04-25 time: 9:00:08.97 UTC ML= 0.8
lat: 47.320N lon: 18.314E h= 0.0 km
erh= 1.2km erz= 220km
nr= 6 gap=216 rms=0.13
Locality: Söréd
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	6.2	320	Pg	9:00:10.10	0.02
			Sg	00:10.80	-0.15
PKSG	9.9	36	PgU	9:00:10.65	-0.08
			Sg	00:12.31	0.21
PKST	22.2	252	Pg	9:00:12.86	-0.07
			Sg	00:16.30	0.27

343.

2019-04-25 time: 9:33:41.28 UTC ML= 0.9
lat: 46.127N lon: 18.044E h= 0.0 km
erh= 2.5km erz= 319km
nr= 7 gap=289 rms=0.21
Locality: Hetvehely
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	6.1	135	Pg	9:33:42.23	-0.14
			Sg	33:42.83	-0.39
PKSV	31.0	149	Pg	9:33:47.17	0.35
PKSM	47.0	78	Pg	9:33:49.53	-0.15
			Sg	33:56.39	0.16
MORH	47.4	78	Pg	9:33:49.71	-0.02
			Sg	33:56.49	0.16

344.

2019-04-25 time: 9:52:38.14 UTC ML= 1.9
lat: 47.440N lon: 18.412E h= 0.0 km
erh= 2.0km erz= 282km
nr= 7 gap=268 rms=0.19
Locality: Várgesztes
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.6	197	Pg	9:52:39.44	0.29
			Sg	52:40.05	0.12
CSKK	14.3	233	Pg	9:52:40.75	0.05
			Sg	52:42.68	-0.01
NADP	25.5	143	Sg	9:52:45.97	-0.29

```
PKST  35.0 235    Pg    9:52:44.21   -0.17
                  Sg      52:49.11   -0.14
```

345.

```
 2019-04-25  time: 10:01:30.18 UTC  ML= 1.7
   lat: 48.360N  lon: 19.853E  h=  0.0 km
                 erh= 2.0km    erz= 772km
   nr= 12        gap= 92       rms=0.64
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  48.8  74    Pg   10:01:39.10    0.21
PSZ   49.2 176    Pg   10:01:39.10    0.13
                  Sg      01:46.13    0.30
A336  64.9 257    Pg   10:01:42.52    0.75
                  Sg      01:50.25   -0.56
PENC  76.3 214    Sg   10:01:54.67    0.23
VYHS  76.7 281    Pg   10:01:43.77   -0.11
                  Sg      01:53.31   -1.25
LANS  92.3 342   ePg   10:01:47.40    0.73
                 eSg      01:59.40   -0.13
ABAH 103.1  94    Sg   10:02:01.40   -1.54
A338 118.0 251    Sg   10:02:06.72   -0.96
```

346.

```
 2019-04-26  time:  6:24:44.70 UTC  ML= 0.6
   lat: 47.208N  lon: 18.202E  h=  0.0 km
                 erh= 2.5km    erz= 661km
   nr=  7        gap=131       rms=0.45
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  14.0 294    Pg    6:24:47.50    0.31
                  Sg      24:48.60   -0.53
CSKK  17.9  14    Pg    6:24:48.25    0.36
                  Sg      24:49.76   -0.61
PKSG  25.0  35    Pg    6:24:49.48    0.33
                  Sg      24:52.40   -0.23
PKSM 115.7 163    Sg    6:25:20.58   -0.88
```

347.

```
 2019-04-26  time:  6:29:00.38 UTC  ML= 0.6
   lat: 47.201N  lon: 18.164E  h=  0.0 km
                 erh= 3.9km    erz= ***km
   nr=  7        gap=141       rms=0.75
   Locality: Pétfürdő
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  11.8 303    Pg    6:29:02.93    0.45
                  Sg      29:03.98   -0.14
CSKK  19.4  22    Pg    6:29:03.63   -0.21
                  Sg      29:06.41   -0.14
PKB5  80.2 147    Sg    6:29:27.94    2.06
MORH 115.5 161    Sg    6:29:35.83   -1.27
PKSM 115.9 162    Sg    6:29:36.74   -0.47
```

348.

```
 2019-04-26  time:  7:35:12.09 UTC  ML= 1.4
   lat: 47.526N  lon: 18.493E  h=  0.0 km
                 erh= 4.2km    erz= 392km
   nr=  5        gap=230       rms=0.18
   Locality: Szárliget
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  16.8 207    Pg    7:35:15.26    0.17
                  Sg      35:17.49    0.05
CSKK  25.2 224    Pg    7:35:16.31   -0.28
                  Sg      35:20.13    0.02
SRO   34.6 337    Sg    7:35:23.22    0.12
```

349.

```
 2019-04-26  time: 10:14:49.66 UTC  ML= 2.0
   lat: 48.556N  lon: 20.774E  h=  0.0 km
                 erh= 2.8km    erz= 538km
   nr=  6        gap=180       rms=0.32
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.8 249    Pg   10:14:53.75    0.03
                  Sg      14:56.94    0.05
ABAH  45.0 130    Sg   10:15:03.82   -0.14
PSZ   96.4 223    Pg   10:15:07.21    0.34
                  Sg      15:19.13   -1.17
KOLS 118.0  69    Pg   10:15:10.67   -0.06
```

350.

```
 2019-04-28  time:  5:52:31.36 UTC  ML= 1.9
   lat: 48.274N  lon: 22.622E  h= 11.8 km
                 erh= 0.6km    erz= 0.3km
   nr=  7        gap=197       rms=0.06
   Locality: Ukraine
   Comments:

sta   dist azm  phase  hr mn  sec     res
TRPA  17.1 201    Pg    5:52:35.09    0.03
                  Sg      52:37.91   -0.05
KOLS  77.7 341    Pg    5:52:45.37   -0.02
                  Sg      52:56.33   -0.01
ABAH 102.7 271    P*    5:52:49.71    0.10
                  S*      53:03.76   -0.10
KECS 160.0 278    Sn    5:53:20.15    3.45*
DRGR 164.9 178    Sn    5:53:17.74   -0.05
```

351.

```
 2019-04-29  time:  1:09:51.38 UTC  ML= 2.0
   lat: 45.757N  lon: 17.973E  h=  4.1 km
                 erh= 2.1km    erz= 1.5km
   nr= 19        gap=202       rms=0.43
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOVH  38.2  15    PgD   1:09:58.69    0.46
                  Sg      10:03.90    0.32
PKSM  72.4  46    PgD   1:10:04.36    0.03
                  Sg      10:13.99   -0.44
MORH  72.9  46    PgD   1:10:04.42    0.01
                  Sg      10:14.08   -0.50
TMP2  75.9 325    Pg    1:10:04.75   -0.20
                  Sg      10:14.72   -0.82
TMP1  88.7 317    Pg    1:10:07.45    0.22
PKS9  95.3  14    Pg    1:10:08.57    0.16
                  Sg      10:22.14    0.45
PKB5 110.2  32    Pg    1:10:10.60   -0.48
PKS2 126.0  50    Pn    1:10:13.23   -0.37
                  Sn      10:31.66    0.74
TIH  127.2 357    Pn    1:10:14.27    0.52
BLY  128.0 209    Sn    1:10:27.52   -3.85*
PKB1 130.5  29    Pn    1:10:14.50    0.34
                  Sn      10:30.56   -1.38
FRGS 159.5 116    Sn    1:10:38.15   -0.21
MPLH 160.6 348    Sn    1:10:38.80    0.18
```

352.

```
 2019-04-29  time:  7:50:05.91 UTC  ML= 1.5
   lat: 47.360N  lon: 18.407E  h=  0.0 km
                 erh= 2.1km    erz= 259km
   nr=  6        gap=267       rms=0.15
   Locality: Gánt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   3.7 341    PgU   7:50:06.53   -0.05
                  Sg      50:06.98   -0.12
CSKK  11.1 272    Pg    7:50:07.92    0.03
                  Sg      50:09.73    0.30
PKST  30.3 248    Pg    7:50:11.41    0.08
                  Sg      50:15.20   -0.35
```

353.

```
 2019-04-29  time:  8:01:36.83 UTC  ML= 1.9
   lat: 47.836N  lon: 19.901E  h=  0.0 km
                 erh= 5.8km    erz= ***km
   nr=  8        gap=184       rms=0.99
   Locality: Gyöngyösoroszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ    9.2 357    Pg    8:01:37.46   -1.00
                  Sg      01:39.95    0.21
PENC  46.6 264    Pg    8:01:46.51    1.36
A336  80.5 303    Pg    8:01:52.00    0.81
                  Sg      02:02.38   -0.02
ABAH 112.1  63    Pg    8:01:56.62   -0.23
                  Sg      02:12.08   -0.39
PKSG 123.8 246    Sg    8:02:13.45   -2.73
```

354.

```
 2019-04-29  time:  8:31:48.28 UTC  ML= 1.5
   lat: 48.421N  lon: 19.121E  h=  0.0 km
                 erh= 2.1km    erz= 3.1km
   nr= 14        gap=117       rms=0.86
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  22.6 291    Pg    8:31:52.12   -0.19
                  Sg      31:55.83    0.38
A336  22.8 203    Pg    8:31:52.60    0.25
                  Sg      31:55.42   -0.10
PENC  71.2 170    Sg    8:32:10.58   -0.32
A338  72.8 232    Sg    8:32:13.12    1.70
PSZ   80.2 134    Pg    8:32:03.72    1.11
                  Sg      32:12.29   -1.49
LANS  85.0  17   ePg    8:32:04.00    0.54
SRO   90.5 222    Sg    8:32:16.41   -0.63
CSKK 134.1 209    Sn    8:32:29.03   -1.53
MODS 136.6 268   ePn    8:32:12.30   -0.05
                 eSn      32:29.40   -1.72
MORC 189.8 323    Sn    8:32:41.49   -1.43
```

355.

```
 2019-04-29  time:  9:51:50.26 UTC  ML= 2.4
   lat: 48.234N  lon: 21.235E  h=  0.0 km
                 erh= 1.8km    erz= 3.7km
   nr=  9        gap=154       rms=0.48
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   6.9   3    Pg    9:51:51.68    0.19
                  Sg      51:53.17    0.73
TRPA  97.7  97    Pg    9:52:07.88    0.18
                  Sg      52:20.84   -0.47
PSZ  105.9 251    Pg    9:52:09.64    0.47
                  Sg      52:23.30   -0.62
KOLS 109.1  45    Pg    9:52:09.80    0.05
                  Sg      52:24.16   -0.78
STHS 131.5   0    Sn    9:52:27.67   -4.29*
A336 166.1 270    Sn    9:52:38.67   -0.98
```

356.

```
 2019-04-29  time: 10:00:14.90 UTC  ML= 1.6
   lat: 48.172N  lon: 16.889E  h=  0.0 km
                 erh= 4.3km    erz= 3.9km
   nr=  8        gap=235       rms=0.42
   Locality: Austria
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CONA  81.2 251    Pg   10:00:29.66    0.26
                  Sg      00:40.26   -0.45
KRUC 105.4 340    Pg   10:00:33.89    0.17
                  Sg      00:48.78    0.37
VRAC 128.2 350    Pg   10:00:37.68   -0.11
                  Sg      00:54.68   -0.97
ARSA 144.9 225    Pn   10:00:40.39    0.39
                  Sn      00:58.71   -0.87
```

357.

```
 2019-04-30  time:  7:17:03.91 UTC  ML= 1.5
   lat: 47.978N  lon: 20.018E  h=  0.0 km
                 erh= 2.2km    erz= 4.2km
   nr=  9        gap=203       rms=0.47
   Locality: Mátraballa
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   11.4 234    Pg    7:17:05.70   -0.25
                  Sg      17:07.46   -0.07
PENC  58.9 249    Sg    7:17:22.35   -0.29
KECS  66.0  32    Pg    7:17:15.58   -0.12
                  Sg      17:24.08   -0.81
A336  81.0 290    Sg    7:17:29.76    0.09
VYHS 104.9 303    Pg    7:17:23.35    0.71
                  Sg      17:36.65   -0.60
LANS 136.6 343    Pn    7:17:28.62    0.65
```

358.

```
 2019-04-30  time:  9:10:05.49 UTC  ML= 1.6
   lat: 48.091N  lon: 20.606E  h=  0.0 km
                 erh= 4.0km    erz= 2.7km
   nr=  5        gap=262       rms=0.28
   Locality: Lillafüred
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  44.5 348    Pg    9:10:13.57    0.12
                  Sg      10:19.43   -0.22
PSZ   56.5 250    Pg    9:10:15.56   -0.02
                  Sg      10:23.89    0.44
VYHS 138.8 289    Sn    9:10:48.15   -0.67
```

359.

```
 2019-04-30  time:  9:14:46.67 UTC  ML= 1.4
   lat: 46.089N  lon: 17.871E  h=  0.0 km
                 erh= 3.3km    erz= 555km
   nr=  7        gap=216       rms=0.36
   Locality: Zsibót
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.7  90    Pg    9:14:50.00    0.16
```

```
TMP2  43.4 306    Sg    9:15:00.22   -0.24
PKSM  61.1  77    Pg    9:14:57.38   -0.20
MORH  61.4  77    Pg    9:14:57.45   -0.18
PKB5  87.2  50    Sg    9:15:14.42    0.04
MPLH 122.8 348    Pg    9:15:09.36    0.76
                  Sg      15:25.13   -0.57
```

360.

```
 2019-04-30  time: 10:08:55.02 UTC  ML= 1.8
   lat: 47.944N  lon: 20.024E  h=  0.0 km
                 erh= 4.0km    erz= 3.0km
   nr= 13        gap=183       rms=0.81
   Locality: Bodony
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   10.1 253    Pg   10:08:56.88    0.07
                  Sg      08:59.01    0.79
PENC  58.1 253    Sg   10:09:13.79    0.31
KECS  69.1  30    Pg   10:09:07.65    0.30
                  Sg      09:16.43   -0.54
A336  82.8 293    Pg   10:09:10.67    0.87
VYHS 107.3 305    Pg   10:09:14.10   -0.08
                  Sg      09:26.83   -2.30
PKS7 119.0 213    Sg   10:09:31.37   -1.49
PKSG 137.2 243    Sn   10:09:36.78   -1.20
LANS 140.3 343    Pn   10:09:20.45    0.91
                  Sn      09:37.68   -0.99
NIE  165.4   7    Sn   10:09:44.26    0.02
```

361.

```
 2019-04-30  time: 10:14:41.90 UTC  ML= 1.5
   lat: 48.635N  lon: 21.416E  h=  0.0 km
                 erh= 2.1km    erz= 5.0km
   nr= 10        gap= 75       rms=0.52
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  39.9 199    Pg   10:14:49.17    0.14
                  Sg      14:55.88    1.29
KECS  70.8 256    Pg   10:14:54.31   -0.22
                  Sg      15:03.71   -0.68
KOLS  71.2  62    Pg   10:14:55.06    0.45
STHS  87.8 352   ePg   10:14:57.90    0.32
                 eSg      15:10.00    0.19
TRPA 100.3 124    Sg   10:15:12.35   -1.45
NIE  118.8 317    Pg   10:15:03.03   -0.08
PSZ  138.3 235    Pn   10:15:05.81   -0.36
```

362.

```
 2019-04-30  time: 17:52:21.77 UTC  ML= 0.5
   lat: 47.377N  lon: 18.107E  h=  3.2 km
                 erh= 2.8km    erz= 6.1km
   nr=  6        gap=243       rms=0.11
   Locality: Nagyveleg
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK  11.7  97    Pg   17:52:24.02    0.08
                  Sg      52:25.78    0.15
PKST  14.2 203    Pg   17:52:24.44    0.07
                  Sg      52:26.24   -0.16
PKSG  21.5  86    Pg   17:52:25.60   -0.05
                  Sg      52:28.48   -0.20
```

363.

```
 2019-05-01  time:  9:03:53.03 UTC  ML= 1.7
   lat: 45.528N  lon: 18.199E  h=  0.0 km
                 erh= 3.6km    erz= 3.7km
   nr=  9        gap=244       rms=0.41
   Locality: Croatia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  62.8 353    Pg    9:04:03.79   -0.46
                  Sg      04:13.35    0.35
PKSM  83.5  24    Pg    9:04:07.58   -0.35
                  Sg      04:19.30   -0.26
MORH  83.9  24    Pg    9:04:07.68   -0.34
                  Sg      04:20.00    0.29
PKS9 117.9   3    Pg    9:04:14.72    0.63
FRGS 133.6 109    Sn    9:04:35.43    0.23
PKB1 147.0  18    Pn    9:04:18.82    0.42
```

364.

```
 2019-05-01  time:  9:15:11.21 UTC  ML= 2.6
   lat: 45.639N  lon: 16.255E  h= 10.0 km
                 erh= 1.8km    erz= 1.4km
   nr= 41        gap=116       rms=0.70
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
ZAG   29.3 316    Pg    9:15:17.23    0.49
                  Sg      15:21.12    0.07
PTJ   37.1 321    Pg    9:15:18.21    0.14
                  Sg      15:22.72   -0.70
GCIS  55.0 297   iPgC   9:15:21.59    0.39
                 iSg      15:28.59   -0.39
GOLS  64.1 310   iPg    9:15:23.05    0.25
                 iSg      15:31.95    0.12
CRES  65.5 288   iPgC   9:15:23.19    0.14
                 iSg      15:31.83   -0.44
CESS  71.9 301   iPg    9:15:24.89    0.72
                 iSg      15:33.82   -0.46
BOJS  79.7 259   iPgC   9:15:25.37   -0.19
LEGS  80.6 295   iPgC   9:15:25.90    0.18
                 iSg      15:35.76   -1.27
KOGS  89.9 360    Pg    9:15:27.60    0.23
                  Sg      15:40.48    0.50
BEHE 100.8  24    Sg    9:15:42.59   -0.82
TMP1 107.0  43    S*    9:15:44.40   -0.79
PDKS 108.3 296   iPnC   9:15:30.48    0.00
                 iSn      15:43.62   -1.88
TMP2 117.4  50    Pn    9:15:32.29    0.69
                  Sn      15:46.53   -0.98
BLY  123.0 144    Pn    9:15:31.93   -0.37
                  Sn      15:44.87   -3.88*
PERS 141.5 322    Pn    9:15:35.18    0.57
                  Sn      15:51.56   -1.29
SOKA 149.2 321    Pn    9:15:36.39    0.82
                  Sn      15:54.02   -0.54
KOVH 151.7  71    Pn    9:15:35.51   -0.38
PKSV 157.8  80    Pn    9:15:36.48   -0.17
                  Sn      15:57.16    0.67
OBKA 163.6 306    Pn    9:15:39.40    2.03
                  Sn      15:59.18    1.41
ARSA 187.7 343    Pn    9:15:40.49    0.11
                  Sn      16:05.37    2.24
PKSM 195.8  71    Pn    9:15:40.81   -0.57
MORH 196.1  71    Pn    9:15:40.74   -0.68
RONA 229.1   1    Pn    9:15:47.46    1.93
                  Sn      16:12.09   -0.21
MOA  288.9 328    Pn    9:15:55.02    2.02
                  Sn      16:25.40   -0.19*
KHC  437.7 332   ePn    9:16:12.80    1.26*
                 eSn      16:57.30   -1.30*
```

365.

```
 2019-05-02  time:  7:18:47.18 UTC  ML= 1.6
   lat: 48.577N  lon: 20.756E  h=  0.0 km
                 erh= 2.6km    erz= 2.8km
   nr= 12        gap=126       rms=0.86
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.6 242    Pg    7:18:51.60    0.39
                  Sg      18:54.27   -0.08
ABAH  47.5 131    Sg    7:19:01.92   -0.35
PSZ   97.3 221    Pg    7:19:05.19    0.64
                  Sg      19:18.08   -0.02
LANS 114.0 304    Pg    7:19:07.20   -0.34
KOLS 118.4  70   ePg    7:19:10.40    2.08
                 eSg      19:24.60   -0.20
A336 135.6 254    Sn    7:19:29.03   -0.77
TRPA 141.2 111    Sn    7:19:28.97   -2.06
VYHS 142.1 266    Pn    7:19:11.98    0.05
                  Sn      19:29.54   -1.70
```

366.

```
 2019-05-02  time:  8:29:23.45 UTC  ML= 1.6
   lat: 47.897N  lon: 19.403E  h=  0.0 km
                 erh= 2.8km    erz= 6.4km
   nr= 12        gap=131       rms=1.01
   Locality: Bercel
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  14.9 217    Pg    8:29:26.27    0.16
                  Sg      29:28.97    0.79
PSZ   36.9  86    Pg    8:29:29.98   -0.05
                  Sg      29:35.45    0.29
A336  48.0 321    Pg    8:29:32.54    0.53
                  Sg      29:37.94   -0.76
VYHS  78.6 328    Pg    8:29:38.94    1.45
                  Sg      29:47.08   -1.35
PKSG  94.5 234    Sg    8:29:51.82   -1.67
KECS 103.6  51   ePg    8:29:42.60    0.65
                 eSg      29:54.20   -2.18
MODS 166.8 289   eSn    8:30:11.00   -1.99
```

367.

```
 2019-05-02  time:  8:47:15.74 UTC  ML= 1.6
   lat: 47.861N  lon: 19.116E  h=  0.0 km
                 erh= 3.7km    erz= 554km
   nr=  6        gap=221       rms=0.33
   Locality: Szendehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  14.7 122    Pg    8:47:18.56    0.20
                  Sg      47:19.94   -0.46
A336  42.3 348    Sg    8:47:29.77    0.58
PSZ   58.6  84    Pg    8:47:26.24    0.04
                  Sg      47:34.24   -0.11
VYHS  73.4 344    Sg    8:47:38.57   -0.51
```

368.

```
 2019-05-02  time: 10:11:40.46 UTC  ML= 1.5
   lat: 48.443N  lon: 20.711E  h=  0.0 km
                 erh= 2.8km    erz= 368km
   nr=  5        gap=188       rms=0.17
   Locality: Szalonna
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  17.2 285    Pg   10:11:43.36   -0.18
                  Sg      11:46.23    0.29
ABAH  42.4 113    Pg   10:11:48.01   -0.03
                  Sg      11:54.25    0.30
PSZ   84.2 226    Pg   10:11:55.44   -0.06
```

369.

```
 2019-05-03  time:  8:04:05.61 UTC  ML= 1.4
   lat: 48.588N  lon: 20.735E  h=  0.0 km
                 erh= 1.8km    erz= 3.4km
   nr= 13        gap= 89       rms=0.55
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  21.8 238    Pg    8:04:10.01    0.51
                  Sg      04:12.68    0.15
ABAH  49.5 131    Pg    8:04:14.09   -0.36
                  Sg      04:20.81   -0.52
PSZ   97.1 220    Pg    8:04:23.03    0.07
                  Sg      04:36.08   -0.41
STHS  99.4  22   ePg    8:04:23.10   -0.27
LANS 112.1 304   ePg    8:04:25.90    0.28
                 eSg      04:39.70   -1.53
KOLS 119.5  71   ePg    8:04:27.80    0.86
                 eSg      04:42.50   -1.08
VYHS 140.6 266    Pn    8:04:30.68    0.50
                  Sn      04:47.99   -1.35
LJU  548.0 239   eSn    8:04:43.80  -95.95*
```

370.

```
 2019-05-03  time:  9:53:39.05 UTC  ML= 1.5
   lat: 47.463N  lon: 18.724E  h=  0.0 km
                 erh= 1.6km    erz= 5.5km
   nr= 17        gap= 97       rms=1.56
   Locality: Etyek
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
BUD   22.7  84    Pg    9:53:44.12    1.02
                  Sg      53:47.65    1.39
PKSG  26.4 253    Pg    9:53:44.12    0.36
                  Sg      53:48.48    1.04
CSKK  36.7 252    Pg    9:53:45.71    0.10
                  Sg      53:51.87    1.15
PKST  56.8 247    Pg    9:53:49.24    0.04
                  Sg      53:58.03    0.91
A336  88.1  13    Pg    9:53:54.85    0.07
                  Sg      54:06.48   -0.57
MPLH  95.3 250    Sg    9:54:08.63   -0.72
PKB5  96.5 179    Sg    9:54:09.74    0.02
PSZ  101.4  60    Sg    9:54:10.77   -0.51
EGYH 105.2 267    Sg    9:54:12.37   -0.11
VYHS 115.0   4    Pg    9:54:00.73    1.15
                  Sg      54:15.48   -0.11
KECS 173.7  49   ePn    9:54:02.00   -5.74
                 eSn      54:05.60  -24.52*
```

371.

```
 2019-05-03  time: 10:24:09.93 UTC  ML= 1.6
   lat: 48.363N  lon: 19.874E  h=  0.0 km
                 erh= 2.9km    erz= 726km
   nr=  7        gap=153       rms=0.48
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  47.2  74    Pg   10:24:18.34   -0.01
PSZ   49.5 178    Pg   10:24:18.62   -0.14
                  Sg      24:25.46   -0.20
A336  66.5 257    Pg   10:24:22.69    0.89
                  Sg      24:30.84   -0.23
VYHS  78.2 281    Pg   10:24:23.88   -0.01
```

```
                  Sg      24:33.68   -1.09
```

372.

```
 2019-05-03  time: 20:20:09.64 UTC  ML= 1.7
   lat: 48.789N  lon: 19.507E  h=  1.5 km
                 erh= 1.9km    erz= 2.8km
   nr= 20        gap= 75       rms=0.73
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
LANS  40.3 356    Pg   20:20:16.87    0.03
                  Sg      20:21.70   -0.76
VYHS  59.3 236    Pg   20:20:20.22   -0.02
                  Sg      20:27.85   -0.65
A336  72.3 211    Pg   20:20:23.12    0.57
                  Sg      20:31.47   -1.16
KECS  79.8 115    Pg   20:20:24.60    0.71
                  Sg      20:33.86   -1.14
NIE   91.5  40    Pg   20:20:26.10    0.12
                  Sg      20:37.75   -0.98
PSZ  101.0 163    Pg   20:20:28.52    0.84
                  Sg      20:40.75   -0.99
PENC 112.3 189    Pg   20:20:29.89    0.20
                  Sg      20:44.24   -1.09
SRO  140.0 219   ePn   20:20:35.10    1.16
                 eSn      20:51.80   -1.10
OJC  160.5   8    Sn   20:20:57.19   -0.25
MORC 180.3 308    Pn   20:20:39.99    1.03
                  Sn      21:01.06   -0.77
KRLC 244.0 306   eSn   20:21:16.50    0.52
```

373.

```
 2019-05-04  time:  8:52:13.37 UTC  ML= 0.9
   lat: 46.158N  lon: 18.291E  h=  0.0 km
                 erh= 1.5km    erz= 521km
   nr= 11        gap=108       rms=0.44
   Locality: Vasas
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  16.7 242    Pg    8:52:16.39    0.05
                  Sg      52:18.08   -0.58
PKSM  27.7  78    Pg    8:52:18.35    0.03
                  Sg      52:21.53   -0.65
MORH  28.0  77    Pg    8:52:18.37    0.00
                  Sg      52:22.20   -0.08
PKSV  30.1 186    Pg    8:52:18.97    0.23
                  Sg      52:23.50    0.57
PKB4  44.7  33    Sg    8:52:27.78    0.21
PKB1  79.6  29    Sg    8:52:39.93    1.27
TIH   88.0 340    Sg    8:52:40.34   -0.98
```

374.

```
 2019-05-06  time:  4:19:34.43 UTC  ML= 0.6
   lat: 47.395N  lon: 18.258E  h=  5.2 km
                 erh= 5.2km    erz= 2.7km
   nr=  6        gap=223       rms=0.10
   Locality: Mór
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   3.5 177   PgU   4:19:35.70    0.15
                  Sg      19:36.35   -0.06
PKSG  10.0  92   PgD   4:19:36.46    0.01
                  Sg      19:37.86   -0.16
PKST  22.6 228    Pg    4:19:38.49   -0.09
                  Sg      19:41.89    0.08
```

375.

```
 2019-05-06  time:  4:21:30.00 UTC  ML= 0.4
   lat: 47.401N  lon: 18.261E  h=  4.3 km
                 erh= 0.8km    erz= 0.6km
   nr=  5        gap=228       rms=0.06
   Locality: Pusztavám
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   4.2 180    Pg    4:21:31.15    0.08
                  Sg      21:31.88   -0.02
PKSG   9.8  96    Pg    4:21:31.93    0.01
                  Sg      21:33.33   -0.08
PKST  23.3 227    Sg    4:21:37.43   -0.09
```

376.

```
 2019-05-06  time:  5:34:04.89 UTC  ML= 0.4
   lat: 47.404N  lon: 18.263E  h=  4.2 km
                 erh= 1.2km    erz= 0.9km
   nr=  5        gap=231       rms=0.06
   Locality: Pusztavám
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   4.5 182    Pg    5:34:06.08    0.08
                  Sg      34:06.84   -0.03
PKSG   9.7  98    Pg    5:34:06.79    0.00
                  Sg      34:08.20   -0.07
PKST  23.6 227    Sg    5:34:12.44   -0.08
```

377.

```
 2019-05-06  time: 10:01:09.26 UTC  ML= 1.7
   lat: 47.350N  lon: 18.476E  h=  0.0 km
                 erh= 2.6km    erz= 464km
   nr=  8        gap=229       rms=0.33
   Locality: Lovasberény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   7.9 306   PgU  10:01:10.80    0.12
                  Sg      01:11.28   -0.50
CSKK  16.3 275    Pg   10:01:12.25    0.07
                  Sg      01:13.94   -0.52
PKST  34.9 253    Pg   10:01:15.97    0.47
                  Sg      01:20.54    0.18
MORH 126.8 174    Sg   10:01:49.32   -0.24
PKSM 127.2 174    Sg   10:01:49.33   -0.36
```

378.

```
 2019-05-06  time: 16:08:06.02 UTC  ML= 0.7
   lat: 47.343N  lon: 18.295E  h=  4.8 km
                 erh= 3.0km    erz= 2.4km
   nr=  6        gap=191       rms=0.08
   Locality: Csákberény
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   3.4 310    Pg   16:08:07.10    0.04
                  Sg      08:07.90    0.02
PKSG   9.0  53    Pg   16:08:07.83   -0.02
                  Sg      08:09.23   -0.04
PKST  21.8 244    Pg   16:08:10.09    0.08
                  Sg      08:12.92   -0.20
```

379.

```
 2019-05-06  time: 16:11:01.17 UTC  ML= 0.7
   lat: 47.397N  lon: 18.264E  h=  5.0 km
                 erh= 1.5km    erz= 0.8km
   nr=  6        gap=225       rms=0.06
   Locality: Pusztavám
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   3.8 184    PgU  16:11:02.39    0.10
                  Sg      11:03.15   -0.02
PKSG   9.6  94    Pg   16:11:03.09   -0.01
                  Sg      11:04.55   -0.06
PKST  23.2 228    Pg   16:11:05.39   -0.01
                  Sg      11:08.63   -0.07
```

380.

```
 2019-05-07  time:  0:52:36.45 UTC  ML= 1.1
   lat: 48.650N  lon: 19.426E  h=  3.9 km
                 erh= 1.1km    erz=23.4km
   nr=  9        gap=115       rms=0.64
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
VYHS  46.8 248    Pg    0:52:44.87    0.03
                  Sg      52:50.19   -1.19
LANS  55.8   3    Pg    0:52:46.90    0.46
                  Sg      52:53.29   -0.94
A336  56.0 214    Pg    0:52:47.11    0.63
                  Sg      52:53.52   -0.78
KECS  80.4 103    Pg    0:52:51.13    0.31
PSZ   88.4 157    Pg    0:52:52.68    0.42
                  Sg      53:03.42   -1.16
```

381.

```
 2019-05-07  time:  7:12:36.73 UTC  ML= 1.3
   lat: 47.304N  lon: 17.675E  h=  0.0 km
                 erh= 1.9km    erz= 3.7km
   nr=  8        gap=114       rms=0.44
   Locality: Bakonykoppány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  18.1 215    Pg    7:12:39.83   -0.13
                  Sg      12:42.12   -0.35
PKST  27.7 100    Pg    7:12:41.86    0.19
                  Sg      12:46.09    0.57
EGYH  28.8 296    Sg    7:12:46.77    0.88
CSKK  44.8  82    Sg    7:12:50.97    0.01
SRO   74.3  40   eSg    7:12:59.70   -0.64
VYHS 158.3  33   eSn    7:13:23.70   -0.68
```

382.

```
 2019-05-07  time:  8:12:24.32 UTC  ML= 1.4
   lat: 48.584N  lon: 20.791E  h=  0.0 km
                 erh= 4.1km    erz= 3.7km
   nr=  7        gap=168       rms=0.59
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  25.2 244    Pg    8:12:29.12    0.30
                  Sg      12:31.79   -0.53
PSZ   99.5 222    Pg    8:12:42.70    0.60
LANS 115.7 303    Pg    8:12:44.89   -0.09
TRPA 139.1 111    Sn    8:13:06.62   -1.08
VYHS 144.7 266    Pn    8:12:49.68    0.28
                  Sn      13:07.44   -1.51
```

383.

```
 2019-05-07  time:  8:27:10.00 UTC  ML= 1.9
   lat: 47.324N  lon: 18.441E  h=  0.0 km
                 erh= 1.2km    erz= 2.9km
   nr= 13        gap=114       rms=0.41
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.4 333    Pg    8:27:11.61    0.11
                  Sg      27:12.14   -0.54
CSKK  14.3 287    Pg    8:27:12.50   -0.06
                  Sg      27:14.12   -0.44
PKST  31.6 257    Sg    8:27:19.65   -0.41
MPLH  70.4 256    Sg    8:27:33.56    1.18
A336 109.3  22    Pg    8:27:29.49   -0.04
                  Sg      27:45.17    0.41
MORH 124.2 173    Sg    8:27:49.19   -0.29
PKSM 124.6 173    Sg    8:27:49.75    0.14
PSZ  127.6  59    Sg    8:27:50.77    0.20
VYHS 133.4  13    Pn    8:27:33.97    0.31
                  Sn      27:50.51   -1.61
```

384.

```
 2019-05-07  time:  8:33:23.05 UTC  ML= 1.9
   lat: 45.600N  lon: 17.337E  h= 12.6 km
                 erh= 1.9km    erz= 1.3km
   nr= 18        gap=214       rms=0.41
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  78.1  66    Pg    8:33:37.08   -0.10
                  Sg      33:48.37    0.17
KOVH  80.4  48    Pg    8:33:37.37   -0.21
                  Sg      33:48.96    0.05
TMP1  83.3 353    Pg    8:33:38.26    0.16
                  Sg      33:49.72   -0.12
BEHE 106.0 336    Pn    8:33:41.90    0.21
                  Sn      33:56.57    0.33
PTJ  112.4 287    Pn    8:33:41.72   -0.76
                  Sn      33:55.51   -2.13*
PKSM 122.0  56    Pn    8:33:43.47   -0.21
                  Sn      33:59.66   -0.11
MORH 122.4  56    Pn    8:33:43.75    0.02
                  Sn      33:59.66   -0.20
KOGS 126.4 318    Pn    8:33:45.15    0.92
                  Sn      34:00.00   -0.75
CRES 148.5 280    Pn    8:33:47.55    0.56
                  Sn      34:05.56   -0.11
```

385.

```
 2019-05-07  time:  9:56:20.42 UTC  ML= 1.0
   lat: 47.199N  lon: 18.287E  h=  0.0 km
                 erh= 1.7km    erz= 393km
   nr=  8        gap=146       rms=0.29
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.4 354    Pg    9:56:23.78    0.08
                  Sg      56:26.19   -0.06
PKST  20.2 289    Pg    9:56:23.84   -0.19
                  Sg      56:26.63   -0.22
PKSG  22.8  20    Pg    9:56:24.40   -0.10
                  Sg      56:27.87    0.19
MPLH  56.7 267    Pg    9:56:31.02    0.48
PKSM 113.0 166    Sg    9:56:55.41   -0.94
```

386.

2019-05-07 time: 11:18:30.21 UTC ML= 1.5
lat: 47.349N lon: 18.427E h= 0.0 km
erh= 3.6km erz= 6.4km
nr= 9 gap=159 rms=0.69
Locality: Gánt
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.5	330	Pg	11:18:31.25	0.06
			Sg	18:31.66	-0.29
CSKK	12.6	277	Pg	11:18:32.56	0.09
			Sg	18:34.16	-0.07
PKST	31.3	251	Pg	11:18:36.17	0.37
MORH	127.1	172	Pg	11:18:54.06	1.16
			Sg	19:09.58	-1.02
PKSM	127.5	173	Sg	11:19:09.84	-0.89
VYHS	130.9	14	Sn	11:19:10.14	-1.65

387.

2019-05-07 time: 11:51:46.43 UTC ML= 1.7
lat: 48.789N lon: 20.075E h= 1.5 km
erh= 3.1km erz= 5.9km
nr= 12 gap=124 rms=0.81
Locality: Slovakia
Comments:

sta	dist	azm	phase	hr mn sec	res
KECS	45.5	138	Pg	11:51:54.68	0.13
LANS	60.0	312	Pg	11:51:57.92	0.78
			Sg	52:05.21	-0.29
NIE	72.2	14	Pg	11:51:59.27	-0.06
			Sg	52:07.34	-2.05
VYHS	97.0	250	Pg	11:52:04.53	0.77
			Sg	52:15.28	-1.99
PSZ	97.7	188	Pg	11:52:03.20	-0.67
A336	100.7	232	Pg	11:52:05.22	0.81
			Sg	52:17.26	-1.18
A338	153.9	236	Pn	11:52:13.00	0.55
OJC	160.4	353	Pn	11:52:13.24	-0.03

388.

2019-05-07 time: 12:43:43.60 UTC ML= 0.8
lat: 47.898N lon: 19.244E h= 2.4 km
erh= 2.7km erz=21.1km
nr= 6 gap=167 rms=0.24
Locality: Alsópetény
Comments:

sta	dist	azm	phase	hr mn sec	res
PENC	12.3	167	Pg	12:43:45.69	-0.14
			Sg	43:47.56	-0.01
A336	41.5	334	Sg	12:43:57.04	0.22
PSZ	48.6	87	Pg	12:43:52.59	0.29
			Sg	43:58.63	-0.45
VYHS	72.9	335	Sg	12:44:06.70	-0.09

389.

2019-05-07 time: 17:52:28.99 UTC ML= 1.0
lat: 47.843N lon: 19.354E h= 0.2 km
erh= 2.5km erz= 169km
nr= 7 gap=144 rms=0.29
Locality: Nógrádsáp
Comments:

sta	dist	azm	phase	hr mn sec	res
PENC	8.0	223	PgU	17:52:30.22	-0.20
			Sg	52:31.50	-0.03
PSZ	41.3	78	Pg	17:52:36.56	0.20
			Sg	52:41.88	-0.23
A336	50.8	329	Pg	17:52:38.52	0.46
			Sg	52:44.97	-0.17
VYHS	82.0	332	Sg	17:52:54.58	-0.46

390.

2019-05-08 time: 9:44:23.18 UTC ML= 1.3
lat: 47.051N lon: 17.887E h= 0.0 km
erh= 5.5km erz= 866km
nr= 12 gap=207 rms=0.72
Locality: Veszprémfajsz
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
TIH	16.8	178	Sg	9:44:28.93	0.42
PKST	25.7	26	Pg	9:44:27.98	0.22
			Sg	44:31.35	0.01
CSKK	44.8	39	Pg	9:44:31.06	-0.11
			Sg	44:36.49	-0.92
PKSG	53.8	45	Pg	9:44:32.34	-0.44
			Sg	44:40.49	0.22
PKB1	75.1	113	Pg	9:44:38.10	1.52
MORH	109.5	148	Pg	9:44:43.01	0.29
			Sg	44:56.01	-1.96
PKSM	109.7	148	Pg	9:44:42.77	0.00
			Sg	44:56.84	-1.21

391.

2019-05-08 time: 10:34:07.69 UTC ML= 0.8
lat: 47.235N lon: 18.263E h= 0.0 km
erh= 1.1km erz= 271km
nr= 7 gap=137 rms=0.18
Locality: Iszkaszentgyörgy
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	14.2	359	Pg	10:34:10.15	-0.08
			Sg	34:12.31	0.10
PKST	17.5	279	Pg	10:34:10.53	-0.28
			Sg	34:13.48	0.23
PKSG	19.9	29	Pg	10:34:11.15	-0.09
			Sg	34:14.30	0.28
PKSM	117.4	166	Pg	10:34:28.80	0.15

392.

2019-05-08 time: 10:35:28.73 UTC ML= 1.5
lat: 45.529N lon: 17.712E h= 12.7 km
erh= 4.7km erz= 1.9km
nr= 11 gap=234 rms=0.48
Locality: Croatia
Comments:

sta	dist	azm	phase	hr mn sec	res
PKSV	58.0	46	Pg	10:35:39.25	-0.08
			Sg	35:47.47	-0.13
KOVH	69.0	26	Pg	10:35:42.12	0.85
			Sg	35:50.49	-0.56
PKSM	104.7	44	Pn	10:35:46.73	-0.46
			Sn	36:01.81	0.22
MORH	105.2	43	Pn	10:35:47.06	-0.19
			Sn	36:02.15	0.45
PTJ	142.7	287	Sn	10:36:09.39	-0.63
CRES	178.8	281	Pn	10:35:56.39	-0.04
			Sn	36:19.20	1.16

393.

```
 2019-05-09  time:  9:00:18.16 UTC  ML= 1.2
   lat: 46.113N  lon: 18.071E  h=  0.0 km
                 erh= 0.6km    erz= 139km
   nr= 11        gap=226       rms=0.11
   Locality: Bakonya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   3.5 141    Pg    9:00:18.99    0.20
                  Sg      00:20.26    0.98*
PKSV  28.6 151    Pg    9:00:23.15   -0.12
                  Sg      00:27.17   -0.08
PKSM  45.4  76    Pg    9:00:26.16   -0.11
                  Sg      00:32.57   -0.02
MORH  45.7  76    Pg    9:00:26.31   -0.01
                  Sg      00:32.72    0.03
PKS9  55.1  17    Pg    9:00:28.04    0.04
                  Sg      00:35.62   -0.05
PKB4  59.2  44    Sg    9:00:37.05    0.08
```

394.

```
 2019-05-09  time:  9:28:14.39 UTC  ML= 1.8
   lat: 48.843N  lon: 20.455E  h=  5.3 km
                 erh= 4.0km    erz= 3.7km
   nr= 15        gap= 95       rms=1.15
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
KECS  40.0 177    Pg    9:28:21.37   -0.24
                  Sg      28:26.80   -0.43
NIE   64.9 351    Pg    9:28:25.35   -0.67
                  Sg      28:32.52   -2.57
LANS  80.0 295   ePg    9:28:30.20    1.50
                 eSg      28:38.50   -1.36
PSZ  110.9 202    Pg    9:28:34.91    0.70
                  Sg      28:48.55   -1.12
VYHS 125.4 252    Pn    9:28:38.06    1.67
                  Sn      28:51.14   -2.41
A336 127.1 238    Sn    9:28:53.74   -0.19
KOLS 133.7  86   ePn    9:28:37.90    0.47
                 eSn      28:53.90   -1.49
OJC  160.3 343    Pn    9:28:41.49    0.74
                  Sn      29:01.94    0.64
```

395.

```
 2019-05-09  time:  9:45:48.10 UTC  ML= 1.9
   lat: 47.252N  lon: 17.679E  h=  0.0 km
                 erh= 1.9km    erz= 305km
   nr=  5        gap=219       rms=0.14
   Locality: Németbánya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  14.0 229    Pg    9:45:50.58   -0.02
                  Sg      45:52.44   -0.10
PKST  26.9  88    Sg    9:45:56.54   -0.11
TIH   42.4 157    Pg    9:45:55.88    0.21
                  Sg      46:01.42   -0.15
```

396.

```
 2019-05-10  time:  5:32:54.53 UTC  ML= 1.5
   lat: 47.730N  lon: 18.078E  h= 10.0 km
                 erh= 9.5km    erz=12.2km
   nr=  6        gap=143       rms=0.61
   Locality: Komárom
   Comments:

sta   dist azm  phase  hr mn  sec     res
SRO   19.9  62    Pg    5:32:58.92    0.41
                  Sg      33:00.94   -0.68
A338  37.8  33    Pg    5:33:02.21    0.70
                  Sg      33:05.99   -0.97
A337  61.1 339    Sg    5:33:13.71   -0.50
A263 134.2 206    Sn    5:33:34.39   -0.17
```

397.

```
 2019-05-10  time:  9:35:48.74 UTC  ML= 2.4
   lat: 48.242N  lon: 21.273E  h=  0.0 km
                 erh= 2.1km    erz= 2.5km
   nr= 11        gap=153       rms=0.49
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   6.6 337    Pg    9:35:50.10    0.19
                  Sg      35:50.71   -0.11
KECS  64.3 295    Pg    9:35:59.87   -0.34
                  Sg      36:08.32   -0.84
TRPA  94.9  97    Pg    9:36:05.87    0.18
                  Sg      36:18.49   -0.42
KOLS 106.6  44    Pg    9:36:07.96    0.19
PSZ  108.8 251    Pg    9:36:09.03    0.86
                  Sg      36:21.85   -1.48
NIE  148.7 332    Sn    9:36:34.17   -0.09
LANS 167.0 307    Sn    9:36:38.39    0.07
```

398.

```
 2019-05-10  time:  9:57:18.68 UTC  ML= 1.3
   lat: 47.308N  lon: 18.329E  h=  0.0 km
                 erh= 1.6km    erz= 2.1km
   nr= 14        gap=109       rms=0.51
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   8.0 320    PgU   9:57:20.10    0.00
                  Sg      57:20.84   -0.37
PKSG  10.4  27    PgU   9:57:20.68    0.15
                  Sg      57:22.57    0.59
PKST  22.9 256    Pg    9:57:22.91    0.13
                  Sg      57:26.44    0.47
A336 114.4  26    Sg    9:57:54.35   -0.70
MORH 123.8 169    Sg    9:57:57.48   -0.56
PKSM 124.2 169    Sg    9:57:57.48   -0.69
PSZ  135.9  60    Pn    9:57:43.68    1.03
                  Sn      58:00.95   -0.40
KOVH 136.8 187    Sn    9:58:01.35   -0.20
VYHS 137.2  16    Pn    9:57:42.93    0.11
                  Sn      58:00.22   -1.42
```

399.

```
 2019-05-10  time: 10:03:48.60 UTC  ML= 1.5
   lat: 48.610N  lon: 20.786E  h=  0.0 km
                 erh= 2.0km    erz= 1.4km
   nr=  9        gap=207       rms=0.76
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  26.3 238    Pg   10:03:53.88    0.59
                  Sg      03:56.63   -0.32
PSZ  101.4 221    Pg   10:04:07.52    0.81
                  Sg      04:20.24   -0.60
A336 138.8 252    Sn   10:04:30.37   -1.54
TRPA 140.4 112    Pn   10:04:13.37    0.24
                  Sn      04:30.93   -1.34
VYHS 144.6 265    Pn   10:04:14.13    0.48
                  Sn      04:32.35   -0.85
```

400.

```
 2019-05-10  time: 11:37:07.29 UTC  ML= 1.3
   lat: 47.845N  lon: 19.121E  h=  0.0 km
                 erh= 1.1km    erz= 384km
   nr=  9        gap=112       rms=0.30
   Locality: Szendehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  13.4 117    Pg   11:37:09.88    0.19
                  Sg      37:11.56    0.00
A336  44.2 348    Pg   11:37:15.53    0.36
                  Sg      37:21.18   -0.15
PSZ   58.4  82    Sg   11:37:25.65   -0.21
PKSG  74.5 227    Sg   11:37:30.44   -0.52
VYHS  75.3 344    Pg   11:37:20.87    0.14
                  Sg      37:29.93   -1.28
PKST 104.5 231    Pg   11:37:25.86   -0.10
```

401.

```
 2019-05-10  time: 17:01:35.23 UTC  ML= 1.6
   lat: 48.567N  lon: 20.792E  h=  0.0 km
                 erh= 3.0km    erz= 3.0km
   nr= 14        gap=153       rms=0.77
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.5 248    Pg   17:01:40.12    0.52
                  Sg      01:42.55   -0.45
PSZ   98.2 223    Pg   17:01:53.26    0.50
                  Sg      02:06.94    0.50
STHS 100.1  19   ePg   17:01:52.60   -0.51
NIE  101.0 340    Pg   17:01:54.63    1.36
                  Sg      02:06.82   -0.52
KOLS 116.3  69    Sg   17:02:11.26   -0.94
LANS 116.8 304    Pg   17:01:55.59   -0.50
A336 137.8 254    Pn   17:01:59.92    0.47
                  Sn      02:16.81   -1.53
VYHS 144.7 267    Pn   17:01:59.96   -0.34
                  Sn      02:18.13   -1.73
OJC  197.4 339    Sn   17:02:32.26    0.69
```

402.

```
 2019-05-11  time:  9:02:25.97 UTC  ML= 0.4
   lat: 46.264N  lon: 18.208E  h=  0.0 km
                 erh= 2.4km    erz= 657km
   nr=  9        gap=166       rms=0.50
   Locality: Kisvaszar
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  21.2 203    Pg    9:02:30.40    0.65
                  Sg      02:33.00    0.30
PKSM  33.9 100    Pg    9:02:32.08    0.05
                  Sg      02:37.07    0.31
MORH  34.1  99    Pg    9:02:32.22    0.16
                  Sg      02:36.79   -0.01
PKS9  36.4   9    Sg    9:02:36.81   -0.72
PKSV  41.8 175    Pg    9:02:33.00   -0.44
                  Sg      02:37.65   -1.61
```

403.

```
 2019-05-11  time: 20:09:44.10 UTC  ML= 0.5
   lat: 47.370N  lon: 18.248E  h=  2.8 km
                 erh= 3.1km    erz= 0.9km
   nr=  6        gap=205       rms=0.10
   Locality: Mór
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   1.2 128    Pg   20:09:44.55   -0.10
                  Sg      09:45.07   -0.01
PKSG  11.1  77    Pg   20:09:46.17    0.03
                  Sg      09:47.86    0.13
PKST  20.3 233    Pg   20:09:47.69   -0.07
                  Sg      09:50.87    0.25
```

404.

```
 2019-05-13  time:  7:57:32.29 UTC  ML= 1.5
   lat: 48.600N  lon: 20.713E  h=  0.0 km
                 erh= 2.6km    erz= 3.5km
   nr=  8        gap=128       rms=0.45
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  21.2 232    Pg    7:57:36.54    0.45
ABAH  51.6 131    Pg    7:57:41.09   -0.42
                  Sg      57:48.50   -0.20
LANS 109.9 304    Pg    7:57:52.14    0.22
                  Sg      58:06.39   -0.84
KOLS 120.5  72    Sg    7:58:11.02    0.42
VYHS 139.1 265    Pn    7:57:57.02    0.35
                  Sn      58:14.94   -0.74
```

405.

```
 2019-05-13  time:  9:28:01.45 UTC  ML= 0.8
   lat: 47.218N  lon: 18.267E  h=  0.0 km
                 erh= 1.4km    erz= 181km
   nr=  6        gap=259       rms=0.12
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.2 358    Pg    9:28:04.21   -0.13
                  Sg      28:06.35   -0.24
PKST  18.2 285    Pg    9:28:04.72    0.02
                  Sg      28:07.30    0.06
PKSG  21.5  26    Pg    9:28:05.39    0.10
                  Sg      28:08.44    0.16
```

406.

```
 2019-05-13  time:  9:38:13.88 UTC  ML= 1.0
   lat: 46.174N  lon: 18.287E  h=  0.0 km
                 erh= 1.2km    erz= 214km
   nr=  8        gap=204       rms=0.15
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.4 236    Pg    9:38:16.83   -0.15
                  Sg      38:19.68    0.28
PKSM  27.7  81    Pg    9:38:18.91    0.09
                  Sg      38:22.58   -0.09
MORH  27.9  81    Pg    9:38:18.96    0.09
                  Sg      38:22.78    0.01
PKSV  31.9 185    Pg    9:38:19.37   -0.21
                  Sg      38:24.21    0.18
```

407.

```
 2019-05-14  time:  6:53:45.66 UTC  ML= 1.4
   lat: 47.324N  lon: 18.424E  h=  0.0 km
                 erh= 2.4km    erz= 592km
   nr=  8        gap=191       rms=0.42
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.0 342    PgU   6:53:47.17    0.09
```

```
                  Sg      53:47.48   -0.72
CSKK  13.1 290    PgU   6:53:48.43    0.43
                  Sg      53:50.26    0.43
PKST  30.4 256    Pg    6:53:51.06   -0.02
                  Sg      53:54.23   -1.08
MORH 124.3 172    Sg    6:54:24.98   -0.19
PKSM 124.7 172    Sg    6:54:25.43    0.13
```

408.

```
 2019-05-14  time:  9:21:57.47 UTC  ML= 1.5
   lat: 48.620N  lon: 20.725E  h=  0.0 km
                 erh= 2.3km    erz= 4.4km
   nr= 10        gap=130       rms=0.59
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.3 229    Pg    9:22:02.02    0.38
                  Sg      22:04.47   -0.42
ABAH  52.4 133    Pg    9:22:07.14    0.31
                  Sg      22:14.01   -0.12
PSZ   99.5 218    Pg    9:22:15.69    0.46
                  Sg      22:28.16   -0.93
LANS 109.5 303   ePg    9:22:17.70    0.68
KOLS 119.0  73    Sg    9:22:34.12   -1.17
VYHS 140.2 264   ePn    9:22:21.50   -0.48
                 eSn      22:39.80   -1.30
```

409.

```
 2019-05-14  time: 11:52:17.88 UTC  ML= 1.6
   lat: 48.283N  lon: 19.775E  h=  0.0 km
                 erh= 4.6km    erz= ***km
   nr=  7        gap=181       rms=0.75
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   41.4 168    Pg   11:52:24.63   -0.65
                  Sg      52:30.63   -0.43
A336  57.9 265    Pg   11:52:28.70    0.48
PENC  65.9 214    Sg   11:52:39.23    0.39
VYHS  73.4 289    Sg   11:52:40.56   -0.66
LANS  99.1 347   ePg   11:52:36.70    1.11
                 eSg      52:47.30   -2.10
```

410.

```
 2019-05-15  time:  8:02:01.85 UTC  ML= 1.4
   lat: 48.597N  lon: 20.729E  h=  0.0 km
                 erh= 2.8km    erz= 3.8km
   nr=  8        gap=128       rms=0.54
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.0 235    Pg    8:02:06.12    0.34
                  Sg      02:08.64   -0.21
ABAH  50.5 132    Pg    8:02:11.42    0.56
                  Sg      02:16.74   -1.15
LANS 111.1 304   ePg    8:02:21.90    0.21
KOLS 119.5  72    Sg    8:02:39.13   -0.70
VYHS 140.3 265    Pn    8:02:26.56    0.19
                  Sn      02:44.62   -0.88
```

411.

```
 2019-05-15  time:  8:09:30.03 UTC  ML= 1.8
   lat: 48.331N  lon: 19.025E  h=  0.0 km
                 erh= 1.5km    erz= 674km
   nr= 18        gap= 61       rms=0.59
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A336  11.0 190    Pg    8:09:32.39    0.40
                  Sg      09:34.15    0.63
VYHS  22.9 322    PgU   8:09:34.25    0.13
                  Sg      09:37.28   -0.04
A338  61.1 235    Sg    8:09:49.32   -0.12
PENC  63.0 162    Pg    8:09:41.53    0.25
                  Sg      09:50.48    0.43
SRO   78.2 223    Sg    8:09:54.20   -0.69
PSZ   79.3 125    Pg    8:09:45.07    0.88
                  Sg      09:54.74   -0.49
LANS  96.8  20    Pg    8:09:47.28   -0.04
KECS 109.5  81    Pg    8:09:49.31   -0.26
                  Sg      10:03.21   -1.61
PKSG 114.7 204    Pg    8:09:50.69    0.19
                  Sg      10:05.34   -1.13
CSKK 121.8 208    Pg    8:09:51.65   -0.13
                  Sg      10:07.07   -1.68
MODS 129.6 272   ePg    8:09:53.80    0.62
                 eSg      10:07.80   -3.43*
```

412.

```
 2019-05-15  time:  8:48:01.37 UTC  ML= 2.3
   lat: 46.870N  lon: 17.184E  h=  0.0 km
                 erh= 4.1km    erz= 729km
   nr=  8        gap=258       rms=0.52
   Locality: Vindornyafok
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  42.9  39    Pg    8:48:09.31    0.28
                  Sg      48:14.73   -0.28
TIH   54.1  87    Sg    8:48:18.36   -0.22
PKST  77.7  56    Sg    8:48:26.12    0.05
PKS9  89.4 111    Sg    8:48:31.33    1.54
CSKK  98.4  56    Sg    8:48:32.70    0.07
PKSG 108.4  58    Sg    8:48:35.38   -0.43
KOVH 111.8 141    Sg    8:48:36.20   -0.71
```

413.

```
 2019-05-15  time:  9:00:58.93 UTC  ML= 1.7
   lat: 47.915N  lon: 20.083E  h=  0.0 km
                 erh= 2.5km    erz= 3.0km
   nr= 12        gap=141       rms=0.53
   Locality: Parád
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   14.1 272    Pg    9:01:01.63    0.18
                  Sg      01:03.92    0.50
PENC  61.6 257    Pg    9:01:09.87   -0.06
                  Sg      01:17.97   -0.53
KECS  69.9  25    Sg    9:01:20.92   -0.23
A336  88.2 294    Pg    9:01:15.32    0.64
                  Sg      01:26.92   -0.05
ABAH  96.0  64    Sg    9:01:29.11   -0.33
VYHS 112.9 305    Pg    9:01:19.44    0.35
                  Sg      01:31.76   -3.05
PKSG 139.8 245    Sn    9:01:41.07   -1.42
PKB2 151.9 205    Sn    9:01:44.89   -0.28
```

414.

```
 2019-05-15  time:  9:32:44.18 UTC  ML= 1.0
   lat: 46.105N  lon: 18.084E  h=  0.0 km
                 erh= 1.9km    erz= 388km
   nr= 10        gap=224       rms=0.31
   Locality: Kővágótőttős
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   2.2 148    PgU   9:32:44.73    0.15
```

```
                  Sg      32:45.91    1.02
PKSV  27.4 152    Pg    9:32:49.01   -0.06
                  Sg      32:52.59   -0.29
PKSM  44.6  75    Pg    9:32:51.88   -0.26
                  Sg      32:58.16   -0.20
MORH  45.0  74    Pg    9:32:52.10   -0.10
                  Sg      32:58.36   -0.10
PKS9  55.6  16    Pg    9:32:53.94   -0.16
PKB5  74.0  43    Pg    9:32:57.98    0.59
```

415.

```
 2019-05-15  time: 12:45:34.29 UTC  ML= 1.9
   lat: 47.161N  lon: 19.241E  h=  0.0 km
                 erh= 6.6km    erz= 947km
   nr= 12        gap=150       rms=0.78
   Locality: Bugyi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKS7  14.1 206    Pg   12:45:36.93    0.13
                  Sg      45:39.07    0.31
PKB1  54.1 219    Pg   12:45:44.18    0.24
PKB2  54.1 180    Pg   12:45:44.94    0.98
PENC  70.0   3    Pg   12:45:48.10    1.31
PKB5  73.8 211    Pg   12:45:47.79    0.32
                  Sg      45:57.82    0.07
PKS9  97.2 229    Pg   12:45:51.43   -0.22
PSZ   97.5  30    Pg   12:45:51.13   -0.57
                  Sg      46:04.41   -0.87
PKSM 115.1 203    Pg   12:45:53.37   -1.47
                  Sg      46:09.70   -1.17
```

416.

```
 2019-05-16  time:  7:08:53.74 UTC  ML= 1.0
   lat: 47.298N  lon: 18.329E  h=  0.0 km
                 erh= 0.9km    erz= 270km
   nr=  8        gap=145       rms=0.19
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   8.9 325    Pg    7:08:55.27   -0.06
                  Sg      08:56.52   -0.05
PKSG  11.4  24    Pg    7:08:55.75   -0.03
                  Sg      08:57.43    0.05
PKST  22.7 259    Pg    7:08:57.64   -0.15
                  Sg      09:01.29    0.34
PKSM 123.1 169    Pg    7:09:15.96    0.24
                  Sg      09:32.25   -0.61
```

417.

```
 2019-05-16  time:  9:27:43.44 UTC  ML= 1.4
   lat: 48.598N  lon: 20.745E  h=  0.0 km
                 erh= 0.7km    erz= 1.9km
   nr= 11        gap= 87       rms=0.22
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.0 236    Pg    9:27:47.60    0.06
                  Sg      27:50.14   -0.60
ABAH  49.7 133    Pg    9:27:52.32    0.01
                  Sg      27:59.23    0.00
STHS  98.1  22    Sg    9:28:14.51   -0.11
PSZ   98.5 220    Pg    9:28:01.16    0.14
                  Sg      28:14.56   -0.17
LANS 112.0 303    Pg    9:28:03.52    0.08
KOLS 118.4  72    Sg    9:28:20.87   -0.20
VYHS 141.4 265    Pn    9:28:08.44    0.34
                  Sn      28:25.86   -1.48*
```

418.

```
 2019-05-16  time:  9:46:05.49 UTC  ML= 1.1
   lat: 47.231N  lon: 18.269E  h=  0.0 km
                 erh= 3.2km    erz= 477km
   nr=  8        gap=236       rms=0.34
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  14.7 357    Pg    9:46:07.97   -0.14
                  Sg      46:09.97   -0.19
PKST  18.1 280    Pg    9:46:08.51   -0.20
                  Sg      46:11.47    0.25
PKSG  20.1  27    Pg    9:46:08.76   -0.32
                  Sg      46:12.38    0.50
MPLH  55.7 263    Pg    9:46:16.04    0.61
                  Sg      46:22.91   -0.28
```

419.

```
 2019-05-16  time: 10:08:00.09 UTC  ML= 2.3
   lat: 48.246N  lon: 21.247E  h=  0.0 km
                 erh= 1.9km    erz= 2.2km
   nr= 14        gap=152       rms=0.54
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   5.6 354    Pg   10:08:01.37    0.29
                  Sg      08:02.90    1.05
KECS  62.3 295    Pg   10:08:11.29    0.08
                  Sg      08:18.94   -0.94
TRPA  96.9  98    Pg   10:08:17.66    0.26
                  Sg      08:30.04   -0.86
PSZ  107.2 250    Pg   10:08:19.62    0.39
                  Sg      08:33.28   -0.87
KOLS 107.5  45    Pg   10:08:19.60    0.31
                  Sg      08:34.16   -0.11
STHS 130.2 360   ePg   10:08:22.30   -1.03
LANS 165.1 308   eSn   10:08:49.10   -0.16
A336 167.0 269    Sn   10:08:49.72    0.05
VYHS 180.7 279    Sn   10:08:53.19    0.47
```

420.

```
 2019-05-16  time: 10:24:12.38 UTC  ML= 1.0
   lat: 47.213N  lon: 18.286E  h=  0.0 km
                 erh= 1.8km    erz= 625km
   nr= 12        gap=119       rms=0.51
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.9 353    Pg   10:24:15.30   -0.09
                  Sg      24:17.61   -0.13
PKST  19.8 285    Pg   10:24:15.61   -0.30
                  Sg      24:18.39   -0.27
PKSG  21.4  22    Pg   10:24:16.16   -0.05
                  Sg      24:19.02   -0.17
MPLH  56.8 265    Pg   10:24:23.24    0.72
PKB1  61.2 141    Pg   10:24:24.14    0.83
MORH 114.1 166    Pg   10:24:32.85    0.09
                  Sg      24:47.39   -1.27
PKSM 114.5 166    Pg   10:24:32.78   -0.05
                  Sg      24:47.39   -1.39
```

421.

```
 2019-05-16  time: 10:39:36.22 UTC  ML= 2.3
   lat: 47.413N  lon: 18.178E  h= 10.8 km
                 erh= 1.1km    erz= 0.9km
   nr= 38        gap= 44       rms=0.57
   Locality: Felsődobos
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   8.3 132    PgU  10:39:38.68    0.03
                  Sg      39:40.22   -0.33
PKSG  16.2  98    PgU  10:39:39.68   -0.02
                  Sg      39:41.99   -0.42
A268  19.3 276    Pg   10:39:40.42    0.26
PKST  20.3 212    Pg   10:39:40.24   -0.08
                  Sg      39:43.38   -0.13
A269  29.4  32    Pg   10:39:41.75   -0.06
SRO   45.7  13    Pg   10:39:45.21    0.61
MPLH  55.3 241    PgU  10:39:46.87    0.59
                  Sg      39:53.17   -0.96
A339  60.7 320    PgD  10:39:47.33    0.10
TIH   61.0 201    PgU  10:39:47.53    0.26
                  Sg      39:55.31   -0.59
EGYH  63.9 270    Pg   10:39:47.93    0.15
                  Sg      39:55.33   -1.47
BUD   64.3  83    Pg   10:39:47.89    0.03
                  Sg      39:56.02   -0.91
A338  68.2  11    Pg   10:39:48.41   -0.14
PKB1  84.0 146    PgU  10:39:51.42    0.08
                  Sg      40:02.23   -0.91
PKS9  92.1 175    Pg   10:39:53.99    1.21
PENC  93.0  63    Pg   10:39:52.67   -0.27
PKB5 100.3 155    P*   10:39:54.63    0.42
                  S*      40:07.28   -0.97
A336 110.0  34    Pn   10:39:55.52   -0.07
                  Sn      40:09.19   -1.50
MODS 126.3 328   ePn   10:39:57.80    0.18
                 eSn      40:12.90   -1.41
VYHS 129.9  22    Pn   10:39:58.95    0.89
SMOL 134.6 335   eSn   10:40:14.80   -1.35
MORH 137.7 165    PnU  10:39:59.17    0.13
                  Sn      40:15.15   -1.70
PKSM 138.1 165    PnU  10:39:59.20    0.11
                  Sn      40:15.20   -1.73
PSZ  140.6  66    Pn   10:40:00.10    0.69
PKSV 169.5 178    Pn   10:40:03.52    0.51
KRUC 226.2 324    Pn   10:40:10.12    0.05
```

422.

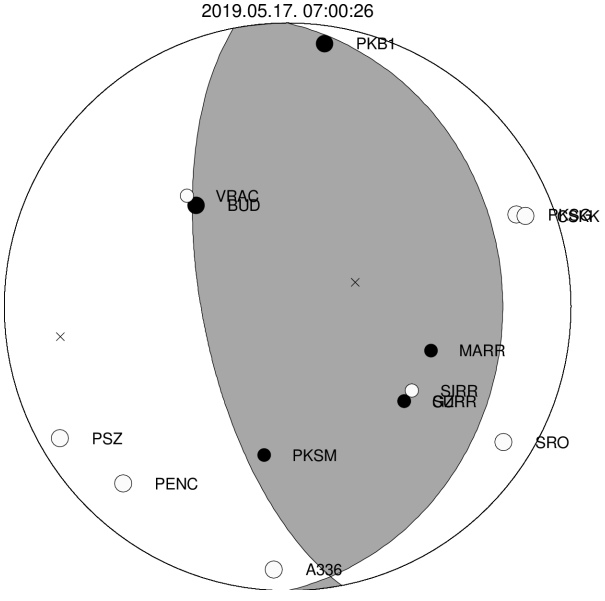
```
 2019-05-16  time: 10:53:18.37 UTC  ML= 1.7
   lat: 47.325N  lon: 18.461E  h=  0.0 km
                 erh= 1.4km    erz= 3.9km
   nr= 10        gap=115       rms=0.41
   Locality: Pátka
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   9.1 324    Pg   10:53:20.02    0.02
                  Sg      53:20.60   -0.67
CSKK  15.8 286    Pg   10:53:21.46    0.28
                  Sg      53:23.34   -0.03
MORH 124.1 174    Sg   10:53:57.33   -0.48
PKSM 124.5 174    Sg   10:53:57.53   -0.41
PSZ  126.3  59    Pg   10:53:41.36    0.44
                  Sg      53:57.98   -0.54
VYHS 133.0  12   ePn   10:53:42.50    0.52
                 eSn      53:58.60   -1.80*
```

423.

```
 2019-05-17  time:  7:00:26.54 UTC  ML= 2.7
   lat: 47.545N  lon: 18.943E  h= 11.0 km
                 erh= 0.9km    erz= 0.8km
   nr= 40        gap= 65       rms=0.45
   Locality: Budakeszi
   Comments: felt 4 EMS

sta   dist azm  phase  hr mn  sec     res
BUD    9.1 138    PgU   7:00:29.20    0.11
                  Sg      00:30.70   -0.38
A270  33.9  10    Pg    7:00:32.84   -0.06
                  Sg      00:37.87    0.01
PENC  37.3  43    PgD   7:00:33.43   -0.06
                  Sg      00:38.29   -0.62
A269  43.4 284    Pg    7:00:34.60    0.06
PKSG  45.0 248    PgD   7:00:34.76   -0.04
                  Sg      00:40.81   -0.44
CSKK  55.3 249    PgD   7:00:36.34   -0.26
                  Sg      00:44.02   -0.43
SRO   55.9 302    PgD   7:00:36.82    0.11
PKS7  57.7 163    Pg    7:00:37.91    0.88
                  Sg      00:45.31    0.09
A338  68.5 320    Pg    7:00:39.56    0.63
                  Sg      00:48.30   -0.29
A267  75.1 208    Pg    7:00:40.07   -0.03
A336  76.7   3    PgD   7:00:40.33   -0.04
A268  77.8 261    Pg    7:00:40.50   -0.07
PSZ   82.6  60    PgD   7:00:40.83   -0.59
PKB1  85.3 188    PgU   7:00:42.18    0.28
A339 101.7 288    P*    7:00:45.83    1.11
VYHS 105.8 356    P*    7:00:45.35   -0.01
PKB5 106.8 188    Pn    7:00:45.67    0.19
TIH  107.0 228    Pn    7:00:44.92   -0.60
MPLH 113.9 249    Pn    7:00:46.72    0.35
PKS9 117.8 205    Pn    7:00:46.82   -0.04
MORH 149.5 189    Pn    7:00:50.56   -0.25
PKSM 150.0 189    PnU   7:00:50.59   -0.28
MODS 154.8 307   ePn    7:00:52.00    0.53
                 eSn      01:09.90   -1.02
KECS 155.4  48    Pn    7:00:51.95    0.41
SMOL 156.1 314   ePn    7:00:54.40    2.77
KOVH 174.2 202    Pn    7:00:53.53   -0.36
SOP  179.9 275    Pn    7:00:53.63   -0.97
LANS 182.7  12   ePn    7:00:58.10    3.14*
                 eSn      01:18.90    1.78
RONA 199.7 275    Pn    7:00:57.54    0.47
                  Sn      01:19.55   -1.33
SIRR 251.0 124    PnD   7:01:03.17   -0.30
VRAC 262.1 318    PnD   7:01:04.16   -0.69
SURR 314.6 129    PnC   7:01:11.14   -0.26*
MARR 331.4 107    PnC   7:01:12.79   -0.70*
GZR  379.4 129    PnC   7:01:18.73   -0.74*
```



424.

```
 2019-05-17  time:  8:24:01.56 UTC  ML= 1.2
   lat: 46.131N  lon: 18.058E  h=  0.0 km
                 erh= 1.9km    erz= 250km
   nr=  7        gap=287       rms=0.17
   Locality: Hetvehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   5.7 146    Pg    8:24:02.50   -0.08
                  Sg      24:03.68    0.30
PKSV  30.9 151    Sg    8:24:11.11   -0.25
PKSM  45.9  79    Pg    8:24:09.76    0.00
                  Sg      24:16.11   -0.05
MORH  46.2  78    Pg    8:24:10.01    0.20
                  Sg      24:16.03   -0.22
```

425.

```
 2019-05-17  time:  9:38:40.31 UTC  ML= 0.6
   lat: 47.180N  lon: 18.295E  h=  0.0 km
                 erh= 0.4km    erz= 112km
   nr=  7        gap=149       rms=0.07
   Locality: Sárkeszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  20.5 353    Pg    9:38:44.05    0.07
                  Sg      38:46.66   -0.18
PKST  21.6 294    Pg    9:38:44.15   -0.01
                  Sg      38:47.22    0.05
PKSG  24.7  17    Pg    9:38:44.76    0.05
                  Sg      38:48.12   -0.03
PKSM 110.8 166    Sg    9:39:15.48   -0.06
```

426.

```
 2019-05-17  time: 10:08:00.36 UTC  ML= 1.8
   lat: 45.500N  lon: 18.038E  h=  1.4 km
                 erh= 1.8km    erz= 1.2km
   nr= 12        gap=287       rms=0.27
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  46.3  21    Pg   10:08:08.80    0.17
                  Sg      08:15.02   -0.06
KOVH  65.6   4    Pg   10:08:12.01   -0.06
                  Sg      08:21.23    0.02
PKSM  92.0  31    Pg   10:08:16.53   -0.25
                  Sg      08:29.65    0.06
MORH  92.4  31    Pg   10:08:16.63   -0.24
                  Sg      08:29.45   -0.30
TMP1 114.2 325    Sg   10:08:36.83    0.17
PKB5 133.1  24    Sn   10:08:42.56    0.45
BEHE 145.6 318    Sn   10:08:44.75   -0.12
PKB1 154.2  22    Pn   10:08:27.29    0.85
```

427.

```
 2019-05-17  time: 10:38:11.14 UTC  ML= 1.6
   lat: 47.324N  lon: 18.461E  h=  0.0 km
                 erh= 2.7km    erz= 560km
   nr=  8        gap=208       rms=0.41
   Locality: Pátka
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   9.2 325    Pg   10:38:12.87    0.08
                  Sg      38:13.40   -0.68
CSKK  15.7 286    Pg   10:38:14.25    0.30
                  Sg      38:15.89   -0.26
PKST  33.0 257    Pg   10:38:17.54    0.50
                  Sg      38:20.81   -0.83
MORH 123.9 173    Sg   10:38:50.51   -0.03
PKSM 124.3 174    Sg   10:38:50.51   -0.16
```

428.

```
 2019-05-17  time: 11:49:04.70 UTC  ML= 1.5
   lat: 47.701N  lon: 18.547E  h=  0.0 km
                 erh= 1.3km    erz= 670km
   nr= 17        gap= 75       rms=0.59
   Locality: Bajót
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
SRO   21.5 305    Pg   11:49:08.93    0.40
                  Sg      49:12.30    0.78
PKSG  36.4 199    Pg   11:49:11.54    0.35
                  Sg      49:15.76   -0.50
A338  37.8 337    Sg   11:49:17.21    0.50
BUD   43.3 124    Sg   11:49:19.01    0.55
CSKK  43.4 210    Pg   11:49:13.28    0.84
                  Sg      49:18.67    0.19
PENC  56.0  80    Sg   11:49:22.32   -0.18
PKST  62.5 218    Sg   11:49:24.74    0.16
A336  68.1  30    Sg   11:49:25.60   -0.74
VYHS  90.7  14    Pg   11:49:20.79   -0.11
                  Sg      49:32.94   -0.59
MPLH  96.2 232    Sg   11:49:34.52   -0.77
EGYH  96.7 251    Sg   11:49:34.34   -1.11
MODS 120.6 308   ePg   11:49:25.40   -0.83
                 eSg      49:40.30   -2.73*
```

429.

```
 2019-05-17  time: 13:05:14.42 UTC  ML= 1.6
   lat: 45.847N  lon: 17.365E  h= 14.0 km
                 erh= 2.9km    erz= 1.3km
   nr= 11        gap=241       rms=0.33
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP1  56.7 347    Pg   13:05:25.03    0.19
                  Sg      05:33.16    0.19
KOVH  62.9  65    Pg   13:05:26.30    0.37
                  Sg      05:35.11    0.20
PKSV  69.0  86    Pg   13:05:26.76   -0.24
                  Sg      05:35.98   -0.83
BEHE  82.9 327    Sg   13:05:40.19   -0.95
PKSM 106.8  68    Pn   13:05:32.96   -0.02
```

```
                  Sn      05:47.30   -0.16
MORH 107.2  68    Pn   13:05:33.26    0.23
                  Sn      05:47.44   -0.10

430.
```

```
 2019-05-18  time:  1:30:23.86 UTC  ML= 1.1
   lat: 47.651N  lon: 18.451E  h= 10.0 km
                 erh= 2.1km    erz= 2.3km
   nr= 19        gap=107       rms=0.74
   Locality: Tardosbánya
   Comments:

sta   dist azm  phase  hr mn  sec     res
SRO   20.8 330    Pg    1:30:28.64    0.65
                  Sg      30:32.09    0.88
PKSG  29.1 189    Pg    1:30:29.14   -0.22
                  Sg      30:33.26   -0.39
CSKK  35.0 204    Pg    1:30:30.25   -0.12
                  Sg      30:35.04   -0.40
BUD   46.9 113    Sg    1:30:38.46   -0.65
PKST  53.7 216    Pg    1:30:33.48   -0.14
                  Sg      30:40.77   -0.45
A336  76.6  32    Pg    1:30:38.04    0.37
                  Sg      30:47.60   -0.83
A337  82.5 323    Sg    1:30:48.05   -2.22
VYHS  98.1  17    Pg    1:30:42.21    0.74
                  Sg      30:53.34   -1.86
PKB1  99.7 165    Pg    1:30:42.69    0.93
                  Sg      30:54.93   -0.78
PKB5 119.3 170    Sn    1:30:59.85   -0.74
MORH 160.2 175    Sn    1:31:10.54    0.88
PKSM 160.6 175    Sn    1:31:10.70    0.95

431.
```

```
 2019-05-18  time:  8:25:09.87 UTC  ML= 1.7
   lat: 48.594N  lon: 20.764E  h=  0.0 km
                 erh= 1.4km    erz= 1.9km
   nr= 16        gap= 87       rms=0.52
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.0 239    Pg    8:25:14.57    0.41
                  Sg      25:17.75    0.25
ABAH  48.3 133    Pg    8:25:19.22    0.72
                  Sg      25:24.73   -0.50
STHS  97.9  21   ePg    8:25:27.30   -0.06
                 eSg      25:41.00    0.00
PSZ   99.1 221    Pg    8:25:27.44   -0.13
                  Sg      25:41.03   -0.34
LANS 113.5 303    Pg    8:25:30.27    0.14
KOLS 117.1  71    Sg    8:25:46.66   -0.44
A336 136.7 253    Pn    8:25:34.10    0.15
                  Sn      25:51.16   -1.57
TRPA 141.3 111    Sn    8:25:51.41   -2.33
PENC 141.9 231    Pn    8:25:34.61    0.01
VYHS 142.8 266    Pn    8:25:35.07    0.36
                  Sn      25:52.74   -1.35

432.
```

```
 2019-05-19  time: 11:46:18.95 UTC  ML= 1.8
   lat: 45.687N  lon: 17.881E  h=  5.7 km
                 erh= 2.1km    erz= 1.9km
   nr= 22        gap= 96       rms=0.63
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  36.5  52    Pg   11:46:26.14    0.59
                  Sg      46:31.08    0.38
KOVH  47.7  21    Pg   11:46:27.87    0.34
                  Sg      46:33.70   -0.53
TMP2  78.9 333    Sg   11:46:43.34   -0.74
PKSM  82.9  45    Pg   11:46:33.56   -0.23
                  Sg      46:44.27   -1.10
MORH  83.4  45    Pg   11:46:33.57   -0.30
                  Sg      46:44.16   -1.36
TMP1  90.1 324    Pg   11:46:35.48    0.40
                  Sg      46:47.32   -0.34
PKS9 104.7  17    Pg   11:46:38.35    0.69
                  Sg      46:51.93   -0.33
BLY  117.8 208    Pn   11:46:39.55   -0.38
                  Sn      46:54.16   -2.15
PKB5 120.6  33    Pn   11:46:40.71    0.42
                  Sn      46:56.08   -0.86
PKB1 140.8  30    Pn   11:46:43.54    0.74
                  Sn      47:01.76    0.35
PTJ  151.4 279    Sn   11:47:03.09   -0.67
FRGS 163.0 112    Sn   11:47:07.21    0.86
CRES 189.2 275    Sn   11:47:13.18    1.01

433.
```

```
 2019-05-19  time: 15:50:53.06 UTC  ML= 1.2
   lat: 48.644N  lon: 19.450E  h=  5.2 km
                 erh= 1.0km    erz=20.3km
   nr=  9        gap=112       rms=0.78
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
VYHS  48.3 250    Pg   15:51:01.78    0.05
                  Sg      51:07.14   -1.35
LANS  56.3   1    Pg   15:51:03.52    0.35
                  Sg      51:09.95   -1.10
A336  56.6 216    Pg   15:51:04.08    0.88
                  Sg      51:10.51   -0.61
KECS  78.5 103    Pg   15:51:08.04    0.93
                  Sg      51:17.16   -0.91
PSZ   87.2 158    Sg   15:51:20.21   -0.61

434.
```

```
 2019-05-19  time: 18:53:13.55 UTC  ML= 1.0
   lat: 48.652N  lon: 19.424E  h=  3.8 km
                 erh= 1.1km    erz=23.5km
   nr=  9        gap=115       rms=0.64
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
VYHS  46.8 248    Pg   18:53:21.99    0.05
                  Sg      53:27.37   -1.11
LANS  55.6   3    Pg   18:53:23.91    0.41
                  Sg      53:30.32   -0.94
A336  56.2 214    Pg   18:53:24.05    0.45
                  Sg      53:30.67   -0.77
KECS  80.6 103    Pg   18:53:28.28    0.33
PSZ   88.7 157    Pg   18:53:30.02    0.61
                  Sg      53:40.44   -1.33

435.
```

```
 2019-05-19  time: 21:34:43.68 UTC  ML= 1.9
   lat: 46.442N  lon: 18.965E  h=  0.3 km
                 erh= 2.1km    erz= 116km
   nr= 11        gap=191       rms=0.38
   Locality: Fajsz
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKB3  17.8  96    Pg   21:34:47.11    0.25
                  Sg      34:48.86   -0.48
PKB5  24.5 314    Pg   21:34:48.24    0.19
                  Sg      34:51.10   -0.36
PKB2  33.5  39    Pg   21:34:49.58   -0.08
PKB1  40.3 341    Pg   21:34:51.34    0.46
```

```
                  Sg      34:55.80   -0.70
PKS6  49.3  69    Pg   21:34:51.96   -0.52
PKS9  55.1 287    Pg   21:34:53.73    0.21
                  Sg      35:00.70   -0.49
PKS7  69.0  13    Pg   21:34:56.44    0.44
```

436.

```
 2019-05-20  time:  8:42:03.82 UTC  ML= 1.5
   lat: 48.618N  lon: 20.763E  h=  0.0 km
                 erh= 2.2km    erz= 2.4km
   nr=  9        gap=147       rms=0.35
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  25.4 234    Pg    8:42:08.27   -0.09
                  Sg      42:11.86   -0.04
PSZ  101.1 220    Pg    8:42:22.15    0.28
                  Sg      42:35.18   -0.78
LANS 111.9 302    Pg    8:42:23.90    0.09
KOLS 116.4  72    Sg    8:42:40.43   -0.38
A336 137.4 252    Pn    8:42:28.25    0.26
VYHS 142.9 264    Pn    8:42:28.97    0.29
                  Sn      42:47.02   -1.04
```

437.

```
 2019-05-20  time:  9:37:59.14 UTC  ML= 0.8
   lat: 47.197N  lon: 18.294E  h=  0.0 km
                 erh= 0.4km    erz=49.3km
   nr=  6        gap=271       rms=0.03
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.6 352    Pg    9:38:02.50    0.03
                  Sg      38:05.04   -0.02
PKST  20.9 289    Pg    9:38:02.84   -0.03
                  Sg      38:05.76   -0.01
PKSG  22.8  19    Pg    9:38:03.25    0.03
                  Sg      38:06.34   -0.06
```

438.

```
 2019-05-20  time: 10:09:13.81 UTC  ML= 2.0
   lat: 46.998N  lon: 22.263E  h=  0.0 km
                 erh= 3.7km    erz= 4.3km
   nr=  9        gap= 93       rms=0.68
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  41.2 124    Pg   10:09:21.59    0.42
                  Sg      09:26.32   -0.59
TRPA 127.6   9    Sg   10:09:52.48   -1.88
AMBH 137.9 239    Sn   10:09:56.73   -0.21
ARCR 159.2  87    Pn   10:09:41.64    0.94
                  Sn      10:00.90   -0.77
BZS  161.4 198    Pn   10:09:41.05    0.07
                  Sn      10:01.53   -0.63
ABAH 163.5 332    Pn   10:09:41.55    0.32
```

439.

```
 2019-05-21  time:  7:20:21.26 UTC  ML= 1.3
   lat: 47.331N  lon: 18.423E  h=  0.0 km
                 erh= 2.0km    erz= 3.8km
   nr=  9        gap=159       rms=0.39
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   7.1 340    PgU   7:20:22.81    0.27
                  Sg      20:23.08   -0.46
CSKK  12.8 286    Pg    7:20:24.05    0.51
PKST  30.5 255    Pg    7:20:26.59   -0.11
                  Sg      20:30.38   -0.57
MORH 125.2 172    Sg    7:21:00.91   -0.14
PKSM 125.6 172    Sg    7:21:01.29    0.11
VYHS 132.9  13    Pn    7:20:44.89    0.02
                  Sn      21:01.50   -1.78
```

440.

```
 2019-05-21  time:  8:15:13.39 UTC  ML= 1.7
   lat: 48.617N  lon: 20.730E  h=  0.0 km
                 erh= 4.9km    erz= 971km
   nr=  5        gap=191       rms=0.45
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.4 230    Pg    8:15:17.90    0.33
ABAH  51.9 133    Pg    8:15:22.47   -0.20
PSZ   99.4 219    Sg    8:15:44.36   -0.64
LANS 109.9 303    Pg    8:15:33.52    0.50
                  Sg      15:47.65   -0.68
```

441.

```
 2019-05-21  time:  8:34:00.81 UTC  ML= 1.9
   lat: 48.543N  lon: 19.366E  h=  0.0 km
                 erh= 1.7km    erz= 2.5km
   nr= 12        gap=104       rms=0.52
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  39.5 262    Pg    8:34:08.31    0.44
                  Sg      34:12.89   -0.48
A336  43.9 218    Pg    8:34:09.02    0.38
                  Sg      34:14.62   -0.14
LANS  68.0   6    Sg    8:34:22.00   -0.41
PSZ   79.8 151    Sg    8:34:26.12   -0.04
KECS  83.0  95    Pg    8:34:15.84    0.22
                  Sg      34:25.96   -1.22
PENC  83.9 184    Sg    8:34:26.65   -0.83
ABAH 141.4 101    Pn    8:34:26.27    0.81
                  Sn      34:44.39   -0.31
PKSG 147.3 210    Sn    8:34:45.56   -0.45
```

442.

```
 2019-05-21  time: 12:23:11.47 UTC  ML= 1.5
   lat: 48.579N  lon: 18.809E  h=  0.0 km
                 erh= 8.5km    erz= 8.0km
   nr=  9        gap=284       rms=1.08
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS   9.7 168    Pg   12:23:14.38    1.18
                  Sg      23:15.88    1.32
A336  41.0 160    Pg   12:23:19.74    0.95
                  Sg      23:24.34   -0.16
A338  71.3 208    Sg   12:23:33.22   -0.91
PENC  94.5 158    Sg   12:23:41.44   -0.07
PSZ  109.1 132    Pg   12:23:30.13   -0.82
                  Sg      23:44.04   -2.11
PKSG 135.7 193    Sn   12:23:52.73   -1.37
```

443.

2019-05-21 time: 23:36:49.52 UTC ML= 1.6
lat: 47.546N lon: 18.934E h= 10.0 km
erh= 1.1km erz= 1.0km
nr= 37 gap= 71 rms=0.57
Locality: Budakeszi
Comments:

sta	dist	azm	phase	hr mn sec	res
BUD	9.6	135	PgU	23:36:52.12	0.12
			Sg	36:53.82	-0.11
A270	33.9	11	Pg	23:36:56.32	0.49
PENC	37.7	44	PgD	23:36:56.53	0.04
PKSG	44.4	247	Pg	23:36:57.88	0.23
			Sg	37:03.32	-0.66
CSKK	54.7	248	Pg	23:36:59.58	0.13
			Sg	37:07.02	-0.17
SRO	55.3	303	Sg	23:37:06.73	-0.66
A338	68.0	320	PgU	23:37:02.74	0.94
			Sg	37:10.50	-0.87
A267	74.9	207	Pg	23:37:03.16	0.15
PKST	75.0	245	Pg	23:37:03.35	0.31
A336	76.6	4	Pg	23:37:03.40	0.08
			Sg	37:12.38	-1.70
PSZ	83.1	60	Pg	23:37:04.26	-0.21
			Sg	37:14.83	-1.30
PKB1	85.3	187	Pg	23:37:05.50	0.64
			Sg	37:15.89	-0.93
PKB2	99.6	166	Pg	23:37:07.49	0.09
			Sg	37:19.92	-1.43
VYHS	105.7	356	P*	23:37:08.50	0.09
			S*	37:20.40	-2.75*
PKB5	106.7	188	P*	23:37:08.69	0.12
			S*	37:21.46	-1.97
PKS9	117.6	205	Pn	23:37:10.18	0.24
PKS2	119.0	170	Pn	23:37:10.25	0.13
			Sn	37:25.98	-0.20
PKB3	126.3	171	Pn	23:37:10.75	-0.27
			Sn	37:27.69	-0.10
MORH	149.5	189	Sn	23:37:33.18	0.24
PKSM	149.9	189	Pn	23:37:13.70	-0.27
			Sn	37:33.12	0.08
KECS	155.8	48	ePn	23:37:16.40	1.70
			eSn	37:36.70	2.36*
KOVH	174.1	201	Pn	23:37:16.83	-0.15
ABAH	191.5	64	Pn	23:37:19.79	0.64

444.

2019-05-22 time: 7:33:40.22 UTC ML= 1.5
lat: 47.336N lon: 18.479E h= 0.0 km
erh= 2.3km erz= 5.6km
nr= 8 gap=163 rms=0.34
Locality: Lovasberény
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	9.1	313	PgU	7:33:42.08	0.23
			Sg	33:42.71	-0.40
CSKK	16.8	280	Pg	7:33:43.53	0.31
			Sg	33:44.93	-0.63
PKST	34.7	256	Pg	7:33:46.48	0.06
PKSM	125.6	174	Pg	7:34:02.69	0.03
			Sg	34:20.15	0.00
VYHS	131.5	12	Sn	7:34:20.12	-1.80

445.

2019-05-22 time: 9:06:42.00 UTC ML= 0.9
lat: 47.215N lon: 18.278E h= 0.0 km
erh= 3.0km erz= 434km
nr= 7 gap=242 rms=0.28
Locality: Iszkaszentgyörgy
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	16.5	355	Pg	9:06:45.01	0.06
			Sg	06:47.55	0.30
PKST	19.1	285	Pg	9:06:45.04	-0.37
			Sg	06:47.86	-0.21
PKSG	21.4	23	Pg	9:06:45.63	-0.19
			Sg	06:48.85	0.04
MPLH	56.2	265	Pg	9:06:52.50	0.47

446.

2019-05-22 time: 10:08:03.38 UTC ML= 1.7
lat: 48.416N lon: 19.129E h= 0.0 km
erh= 2.1km erz= 5.5km
nr= 14 gap= 85 rms=0.76
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
A336	22.5	205	Pg	10:08:08.30	0.91
			Sg	08:11.18	0.66
VYHS	23.3	292	Pg	10:08:07.46	-0.08
			Sg	08:10.20	-0.59
PENC	70.4	171	Pg	10:08:16.26	0.30
			Sg	08:25.57	-0.20
PSZ	79.4	134	Pg	10:08:18.31	0.75
			Sg	08:28.61	-0.01
LANS	85.4	17	Pg	10:08:19.33	0.70
KECS	100.7	86	Pg	10:08:20.65	-0.70
			Sg	08:34.09	-1.29
PKSG	126.5	206	Pg	10:08:25.84	-0.13
			Sg	08:41.42	-2.17
CSKK	133.8	209	Sn	10:08:43.75	-1.85

447.

2019-05-22 time: 10:25:23.26 UTC ML= 1.5
lat: 47.512N lon: 18.589E h= 0.0 km
erh= 2.7km erz= 2.6km
nr= 9 gap=169 rms=0.72
Locality: Óbarok
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	20.0	228	Pg	10:25:27.78	0.95
			Sg	25:30.03	0.42
CSKK	29.7	236	Pg	10:25:28.78	0.21
			Sg	25:32.36	-0.35
PKST	50.4	236	Sg	10:25:38.62	-0.66
VYHS	110.8	10	Pg	10:25:43.51	0.47
			Sg	25:57.44	-1.03
MORH	144.1	178	Sn	10:26:06.67	-1.09
PKSM	144.5	178	Sn	10:26:06.67	-1.19

448.

2019-05-23 time: 9:13:26.25 UTC ML= 1.0
lat: 46.169N lon: 18.288E h= 0.0 km
erh= 1.9km erz= 361km
nr= 8 gap=201 rms=0.28
Locality: Zobákpuszta
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	17.1	238	Pg	9:13:29.32	0.02
			Sg	13:30.65	-1.04
PKSM	27.7	80	Pg	9:13:31.21	0.02
			Sg	13:35.28	0.24
MORH	28.0	79	Pg	9:13:31.26	0.02
			Sg	13:34.57	-0.57
PKSV	31.3	185	Pg	9:13:31.94	0.10
			Sg	13:36.57	0.36

449.

```
 2019-05-24  time:  8:08:28.10 UTC  ML= 1.2
   lat: 46.110N  lon: 18.012E  h=  0.0 km
                 erh= 3.9km    erz= 543km
   nr=  7        gap=263       rms=0.36
   Locality: Bükkösd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   7.2 109    Pg    8:08:29.17   -0.21
                  Sg      08:30.64    0.26
PKSV  30.8 143    Pg    8:08:33.64    0.04
                  Sg      08:38.22    0.33
PKSM  49.9  77    Pg    8:08:36.90   -0.11
                  Sg      08:42.96   -1.01
PKB5  77.6  46    Sg    8:08:53.37    0.62
```

450.

```
 2019-05-24  time:  8:37:07.86 UTC  ML= 2.2
   lat: 48.283N  lon: 21.277E  h=  0.0 km
                 erh= 6.8km    erz= 5.9km
   nr=  6        gap=203       rms=0.84
   Locality: Sima
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   3.2 298    Pg    8:37:09.17    0.74
                  Sg      37:10.03    1.16
KECS  62.7 291    Sg    8:37:27.44   -0.36
KOLS 103.1  45    Sg    8:37:39.70   -0.94
PSZ  110.7 249    Sg    8:37:41.79   -1.25
A336 169.2 268    Sn    8:37:57.82   -0.13
```

451.

```
 2019-05-24  time:  9:22:33.51 UTC  ML= 1.0
   lat: 47.192N  lon: 18.307E  h=  0.0 km
                 erh= 3.1km    erz= 2.6km
   nr=  9        gap=234       rms=0.41
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  19.3 350    Pg    9:22:36.98    0.01
                  Sg      22:39.30   -0.36
PKST  21.9 290    Pg    9:22:37.31   -0.12
                  Sg      22:40.16   -0.33
PKSG  23.1  16    Pg    9:22:37.82    0.18
                  Sg      22:41.23    0.37
PSZ  144.2  56    Sn    9:23:17.23   -0.81
VYHS 150.1  15    Pn    9:23:00.13    0.87
                  Sn      23:18.91   -0.43
```

452.

```
 2019-05-24  time: 18:31:22.44 UTC  ML= 1.1
   lat: 47.832N  lon: 18.656E  h= 10.0 km
                 erh= 6.2km    erz=19.7km
   nr= 10        gap=172       rms=0.70
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
SRO   25.7 265    Pg   18:31:28.29    0.92
                  Sg      31:30.87   -0.34
A336  51.4  30    PgD  18:31:32.34    0.54
                  Sg      31:38.75   -0.34
PKSG  52.9 202    Pg   18:31:31.41   -0.64
CSKK  60.0 210    Pg   18:31:33.84    0.53
                  Sg      31:41.29   -0.49
VYHS  74.8  10    Pg   18:31:36.26    0.34
                  Sg      31:44.86   -1.57
PKST  79.0 216    Sg   18:31:46.68   -1.09
```

453.

```
 2019-05-25  time:  0:57:10.16 UTC  ML= 1.2
   lat: 47.833N  lon: 18.640E  h= 14.4 km
                 erh= 1.7km    erz= 1.5km
   nr= 20        gap=105       rms=0.63
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
SRO   24.6 265    Pg    0:57:16.00    0.75
                  Sg      57:18.31   -0.91
A338  29.6 313    Pg    0:57:16.58    0.55
                  Sg      57:20.80    0.18
PENC  48.3  96    Sg    0:57:25.87   -0.29
A336  52.0  31    Pg    0:57:19.79    0.01
                  Sg      57:26.15   -1.14
PKSG  52.5 201    Pg    0:57:20.12    0.25
                  Sg      57:26.90   -0.55
CSKK  59.5 209    Pg    0:57:21.26    0.17
                  Sg      57:28.90   -0.72
VYHS  75.0  11    Pg    0:57:23.77   -0.02
                  Sg      57:32.42   -2.00
PKST  78.4 216    Sg    0:57:34.57   -0.93
PSZ   94.3  84    P*    0:57:27.80    0.90
EGYH 108.7 245    Pn    0:57:29.65    0.75
                  Sn      57:43.11   -0.41
MPLH 110.9 228    Sn    0:57:43.53   -0.49
MODS 118.0 301   ePn    0:57:29.30   -0.76
                 eSn      57:46.00    0.41
```

454.

```
 2019-05-25  time: 17:49:14.91 UTC  ML=-0.2
   lat: 48.263N  lon: 18.971E  h= 10.0 km
                 erh= 0.4km    erz= 0.5km
   nr=  5        gap=169       rms=0.18
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
A336   3.9 148    Pg   17:49:16.95    0.13
                  Sg      49:18.09   -0.23
VYHS  27.6 339    Pg   17:49:20.33    0.18
                  Sg      49:23.98   -0.27
A338  53.6 239    Sg   17:49:32.13   -0.13
```

455.

```
 2019-05-27  time:  8:23:14.06 UTC  ML= 1.6
   lat: 48.723N  lon: 18.806E  h=  5.4 km
                 erh= 7.2km    erz= 8.1km
   nr=  8        gap=147       rms=1.07
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
VYHS  25.5 175    Pg    8:23:19.55    0.82
                  Sg      23:22.02   -0.34
A336  56.3 165    Pg    8:23:24.77    0.61
                  Sg      23:29.95   -2.09
LANS  67.9  46    Sg    8:23:34.27   -1.45
KECS 126.7 102   eSn    8:23:55.40    1.93
MORC 149.0 322    Pn    8:23:39.52    0.53
                  Sn      23:57.15   -1.28
```

456.

```
 2019-05-27  time:  9:57:23.92 UTC  ML= 1.7
   lat: 47.861N  lon: 19.154E  h=  0.0 km
                 erh= 1.4km    erz= 235km
   nr=  6        gap=212       rms=0.14
   Locality: Nőtincs
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  12.4 130    Pg    9:57:26.17    0.04
                  Sg      57:27.63   -0.22
A336  42.9 344    Pg    9:57:31.77    0.19
                  Sg      57:37.37   -0.19
PSZ   55.7  83    Sg    9:57:41.61   -0.01
VYHS  74.2 341    Sg    9:57:47.44   -0.06
```

457.

```
 2019-05-27  time:  9:57:56.06 UTC  ML= 1.8
   lat: 47.950N  lon: 20.143E  h=  0.0 km
                 erh= 6.0km    erz= 732km
   nr=  6        gap=195       rms=0.42
   Locality: Szajla
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   18.9 259    Pg    9:57:59.36   -0.08
                  Sg      58:01.90   -0.17
ABAH  90.2  65    Pg    9:58:11.95   -0.22
                  Sg      58:24.91    0.17
A336  90.9 290    Pg    9:58:12.99    0.70
                  Sg      58:24.19   -0.75
```

458.

```
 2019-05-27  time: 12:55:29.41 UTC  ML= 1.3
   lat: 48.545N  lon: 20.796E  h=  0.0 km
                 erh= 2.8km    erz= 5.6km
   nr= 11        gap=123       rms=0.83
   Locality: Bódvalenke
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.9 253    Pg   12:55:33.76    0.07
                  Sg      55:36.44   -0.58
ABAH  43.0 130    Pg   12:55:37.48    0.39
                  Sg      55:43.01   -0.06
STHS 102.3  19   ePg   12:55:47.40   -0.28
                 eSg      55:59.60   -2.33
NIE  103.4 340    Pg   12:55:49.16    1.29
                  Sg      56:01.78   -0.49
KOLS 116.9  68    Sg   12:56:05.45   -1.12
VYHS 144.9 268    Pn   12:55:55.12    0.61
                  Sn      56:12.01   -2.08
```

459.

```
 2019-05-28  time:  2:53:40.46 UTC  ML= 0.1
   lat: 47.380N  lon: 18.139E  h=  5.4 km
                 erh= 2.8km    erz= 3.0km
   nr=  6        gap=235       rms=0.07
   Locality: Nagyveleg
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   9.4 101    Pg    2:53:42.50    0.12
                  Sg      53:43.80   -0.09
PKST  15.6 211    PgD   2:53:43.38   -0.02
                  Sg      53:45.66   -0.03
PKSG  19.1  86    Pg    2:53:44.01    0.02
                  Sg      53:46.64   -0.11
```

460.

```
 2019-05-28  time:  7:13:30.31 UTC  ML= 1.2
   lat: 47.932N  lon: 19.204E  h=  0.0 km
                 erh= 3.0km    erz= 698km
   nr=  7        gap=176       rms=0.46
   Locality: Bánk
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  16.7 160    Pg    7:13:33.49    0.19
                  Sg      13:34.78   -0.85
A336  36.8 335    Pg    7:13:37.21    0.32
                  Sg      13:42.01   -0.01
PSZ   51.6  92    Pg    7:13:39.90    0.38
                  Sg      13:46.46   -0.25
VYHS  68.2 336    Sg    7:13:50.99   -1.01
```

461.

```
 2019-05-28  time:  8:32:49.74 UTC  ML= 1.5
   lat: 48.606N  lon: 20.737E  h=  0.0 km
                 erh= 2.1km    erz= 3.5km
   nr= 13        gap= 86       rms=0.68
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.0 234    Pg    8:32:54.63    0.77
                  Sg      32:56.84   -0.23
ABAH  50.7 133    Pg    8:32:58.77   -0.02
                  Sg      33:05.60   -0.26
STHS  97.5  22   ePg    8:33:06.40   -0.75
                 eSg      33:19.70   -1.02
PSZ   98.8 219    Pg    8:33:07.76    0.38
                  Sg      33:20.26   -0.88
LANS 111.1 303    Pg    8:33:10.12    0.55
KOLS 118.6  72    Sg    8:33:27.89    0.44
A336 135.2 252    Sn    8:33:30.25   -2.01
VYHS 140.9 265    Pn    8:33:14.94    0.60
                  Sn      33:32.26   -1.27
```

462.

```
 2019-05-28  time:  9:10:31.29 UTC  ML= 1.1
   lat: 47.191N  lon: 18.292E  h=  0.0 km
                 erh= 1.3km    erz= 160km
   nr=  6        gap=273       rms=0.10
   Locality: Sárkeszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  19.3 353    Pg    9:10:34.70   -0.03
                  Sg      10:37.16   -0.25
PKST  20.9 291    Pg    9:10:35.08    0.05
                  Sg      10:37.92   -0.02
PKSG  23.5  19    Pg    9:10:35.48   -0.01
                  Sg      10:38.97    0.20
```

463.

```
 2019-05-28  time:  9:32:06.45 UTC  ML= 1.5
   lat: 47.887N  lon: 19.758E  h=  0.0 km
                 erh= 4.5km    erz= ***km
   nr=  6        gap=182       rms=0.62
   Locality: Szurdokpüspöki
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   10.8  71    Pg    9:32:08.29   -0.09
                  Sg      32:09.79   -0.09
PENC  37.2 253    Pg    9:32:13.81    0.71
                  Sg      32:17.37   -0.92
KECS  85.6  39    Sg    9:32:32.69   -0.96
```

```
VYHS  96.2 315    Sg    9:32:37.66    0.64
```

464.

```
 2019-05-29  time:  7:51:06.60 UTC  ML= 1.3
   lat: 46.943N  lon: 17.275E  h=  0.0 km
                 erh= 2.6km    erz= 3.1km
   nr=  9        gap=149       rms=0.50
   Locality: Sümegprága
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  32.3  39    Pg    7:51:11.90   -0.46
                  Sg      51:16.28   -0.57
EGYH  52.9   5    Sg    7:51:24.39    0.98
BEHE  65.0 216    Sg    7:51:27.34    0.08
PKST  67.5  59    Pg    7:51:18.47   -0.18
                  Sg      51:28.85    0.80
KOVH 114.2 146    Sg    7:51:42.77   -0.12
MORH 132.5 128    Sn    7:51:48.26   -0.26
PKSM 132.6 128    Sn    7:51:49.20    0.66
```

465.

```
 2019-05-29  time:  7:59:58.34 UTC  ML= 1.4
   lat: 48.612N  lon: 20.758E  h=  0.0 km
                 erh= 1.9km    erz= 3.4km
   nr= 12        gap= 85       rms=0.56
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.7 234    Pg    8:00:03.21    0.46
                  Sg      00:05.54   -0.65
ABAH  50.1 135    Pg    8:00:07.94    0.66
                  Sg      00:13.53   -0.72
STHS  96.2  22   ePg    8:00:14.90   -0.62
                 eSg      00:28.60   -0.33
PSZ  100.3 220    Pg    8:00:16.48    0.23
                  Sg      00:29.52   -0.71
LANS 112.0 302    Pg    8:00:18.92    0.59
KOLS 117.0  72    Sg    8:00:34.70   -0.81
VYHS 142.5 265    Pn    8:00:23.45    0.31
                  Sn      00:41.87   -0.61
```

466.

```
 2019-05-29  time:  8:28:57.96 UTC  ML= 1.9
   lat: 47.328N  lon: 18.451E  h=  0.0 km
                 erh= 2.2km    erz= 4.0km
   nr=  8        gap=161       rms=0.50
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.4 327    PgU   8:28:59.84    0.37
                  Sg      29:00.13   -0.51
CSKK  14.9 285    Pg    8:29:01.19    0.56
                  Sg      29:02.57   -0.14
PKST  32.5 256    Sg    8:29:07.74   -0.54
MORH 124.5 173    Sg    8:29:37.66    0.11
PKSM 125.0 173    Sg    8:29:37.59   -0.09
VYHS 132.8  13    Sn    8:29:38.75   -1.20
```

467.

```
 2019-05-29  time:  8:59:02.53 UTC  ML= 1.4
   lat: 47.905N  lon: 19.402E  h=  0.0 km
                 erh= 2.0km    erz= 788km
   nr= 12        gap=120       rms=0.66
   Locality: Becske
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  15.6 215    Pg    8:59:04.92   -0.40
                  Sg      59:08.08    0.59
A270  29.4 257    Pg    8:59:07.82    0.03
ET1H  35.2  95    Pg    8:59:08.48   -0.35
PSZ   36.9  88    Pg    8:59:09.25    0.13
                  Sg      59:14.80    0.55
A336  47.2 321    Pg    8:59:10.83   -0.14
                  Sg      59:16.93   -0.62
VYHS  77.8 327    Pg    8:59:18.17    1.74
                  Sg      59:25.85   -1.42
PKSG  95.0 233    Sg    8:59:33.07    0.34
KECS 103.1  51    Sg    8:59:34.79   -0.51
```

468.

```
 2019-05-29  time: 20:09:16.95 UTC  ML= 0.0
   lat: 47.346N  lon: 18.200E  h=  3.8 km
                 erh= 3.7km    erz= 1.0km
   nr=  6        gap=195       rms=0.07
   Locality: Bodajk
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   5.0  67    Pg   20:09:18.00   -0.06
                  Sg      09:18.96    0.02
PKSG  15.3  71    Pg   20:09:19.87    0.11
                  Sg      09:21.93   -0.02
PKST  15.8 232    Pg   20:09:19.80   -0.05
                  Sg      09:22.14    0.02
```

469.

```
 2019-05-29  time: 22:52:19.20 UTC  ML= 2.1
   lat: 47.816N  lon: 17.234E  h= 10.0 km
                 erh= 1.2km    erz= 1.2km
   nr= 49        gap= 62       rms=0.74
   Locality: Újrónafő
   Comments:

sta   dist azm  phase  hr mn  sec     res
A339  31.6  87    Pg   22:52:26.11    1.00
                  Sg      52:31.17    1.44
EGYH  45.0 171    Pg   22:52:27.81    0.39
SOP   52.8 254    Pg   22:52:29.17    0.38
                  Sg      52:35.67   -0.61
MODS  62.1   3   ePg   22:52:30.60    0.18
                 eSg      52:38.40   -0.78
A337  63.1  41    Sg   22:52:37.79   -1.71
RONA  71.5 260    Pg   22:52:32.29    0.20
                  Sg      52:41.19   -0.96
MPLH  75.4 162    Pg   22:52:32.91    0.13
                  Sg      52:42.86   -0.52
SRO   80.8  90    Pg   22:52:33.52   -0.22
                  Sg      52:44.76   -0.32
PKST  86.4 136    Pg   22:52:35.07    0.34
                  Sg      52:45.55   -1.30
CSKK  92.2 123    Pg   22:52:35.80    0.05
PKSG  98.9 118    Pg   22:52:36.06   -0.89
                  Sg      52:49.19   -1.61
CONA 103.4 277    P*   22:52:37.90    0.16
                  S*      52:51.25   -0.96
A336 139.6  71    Pn   22:52:42.43    0.08
VYHS 141.0  58    Pn   22:52:41.81   -0.72
                  Sn      52:57.87   -2.87
ARSA 143.4 244    Pn   22:52:44.89    2.06
                  Sn      53:02.24    0.98
KRUC 151.8 336    Pn   22:52:44.08    0.20
                  Sn      53:02.70   -0.43
PKB1 164.5 134    Pn   22:52:45.94    0.48
                  Sn      53:04.87   -1.07
VRAC 172.5 344    Pn   22:52:47.28    0.82
                  Sn      53:07.44   -0.29
PKB5 177.1 140    Pn   22:52:47.24    0.20
PKB2 198.0 130    Pn   22:52:50.42    0.78
```

```
KOVH 203.1 161    Pn   22:52:50.06   -0.21
MORH 207.7 149    Pn   22:52:50.56   -0.29
PKSM 208.0 149    Pn   22:52:50.60   -0.29
SOKA 209.3 233    Pn   22:52:51.22    0.17
                  Sn      53:14.70   -1.19
PKS2 210.2 134    Pn   22:52:51.81    0.65
MORC 219.2   6    Sn   22:53:18.16    0.07
MOA  222.3 271    Pn   22:52:52.21   -0.45
                  Sn      53:16.60   -2.17
PKS6 222.4 127    Pn   22:52:53.26    0.58
PKSV 227.9 160    Pn   22:52:54.19    0.82
OBKA 250.2 234    Pn   22:52:56.03   -0.11
                  Sn      53:22.93   -2.03
KRLC 253.4 352    Pn   22:52:57.80    1.25
                  Sn      53:25.56   -0.12
KBA  304.6 254    Pn   22:53:02.46   -0.47*
                  Sn      53:36.14   -0.91*
BLY  341.0 181    Pn   22:53:08.09    0.62*

470.
```

```
 2019-05-30  time:  0:25:03.86 UTC  ML= 1.3
   lat: 46.521N  lon: 20.069E  h= 14.4 km
                 erh= 2.2km    erz= 1.0km
   nr= 17        gap=258       rms=0.41
   Locality: Ópusztaszer
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKS6  39.7 283    Pg    0:25:11.90    0.50
                  Sg      25:17.97    0.70
PKSN  44.6 340    Sg    0:25:17.85   -0.91
PKB2  65.6 285    Sg    0:25:24.82   -0.40
PKS2  65.8 267    Pg    0:25:16.29    0.41
                  Sg      25:25.25   -0.01
PKB3  68.0 261    Pg    0:25:16.12   -0.15
                  Sg      25:25.28   -0.67
PKS7  90.8 310    S*    0:25:33.07    0.36
PKB1 102.0 287    Sn    0:25:35.48   -0.28
PKB5 102.6 275    Sn    0:25:35.62   -0.26
MORH 114.8 253    Pn    0:25:23.13   -0.24
                  Sn      25:38.76    0.18
PKSM 115.1 253    Pn    0:25:23.25   -0.16
                  Sn      25:38.74    0.08
PKS9 137.5 273    Sn    0:25:45.55    1.92*
PSZ  155.9 355    Sn    0:25:48.03    0.30

471.
```

```
 2019-05-30  time:  7:43:20.01 UTC  ML= 1.2
   lat: 47.563N  lon: 18.462E  h=  0.0 km
                 erh= 0.9km    erz= 165km
   nr=  9        gap=181       rms=0.12
   Locality: Tatabánya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A269  10.3 324    Pg    7:43:21.98    0.14
                  Sg      43:23.06   -0.20
PKSG  19.8 196    Pg    7:43:23.51   -0.03
                  Sg      43:26.41    0.10
CSKK  26.9 214    Pg    7:43:24.88    0.06
                  Sg      43:28.44   -0.13
PKST  46.7 224    Pg    7:43:28.34   -0.01
VYHS 107.2  15    Pg    7:43:39.13   -0.01
                  Sg      43:52.67   -1.40*

472.
```

```
 2019-05-30  time:  8:05:29.25 UTC  ML= 1.7
   lat: 48.310N  lon: 21.469E  h=  0.0 km
                 erh= 3.8km    erz= ***km
   nr= 10        gap=146       rms=0.84
   Locality: Tolcsva
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  17.1 265    Pg    8:05:33.32    1.02
                  Sg      05:36.03    1.35
KECS  75.4 285    Pg    8:05:42.43   -0.27
                  Sg      05:52.25   -0.95
TRPA  82.0 104    Sg    8:05:54.29   -1.01
KOLS  91.2  41    Pg    8:05:46.20    0.66
                  Sg      05:57.85   -0.40
STHS 124.2 352   ePg    8:05:51.10   -0.33
                 eSg      06:09.10    0.37
PSZ  125.1 250    Sg    8:06:07.42   -1.58

473.
```

```
 2019-05-30  time:  8:25:10.54 UTC  ML= 1.2
   lat: 45.881N  lon: 18.385E  h=  0.0 km
                 erh= 4.9km    erz= 789km
   nr=  8        gap=247       rms=0.57
   Locality: Kisharsány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSV  10.4 275    Pg    8:25:12.19   -0.20
                  Sg      25:13.77   -0.06
KOVH  32.0 316    Sg    8:25:20.42   -0.28
PKSM  41.8  28    Pg    8:25:17.71   -0.29
                  Sg      25:23.82   -0.01
MORH  42.3  28    Pg    8:25:17.78   -0.31
                  Sg      25:23.89   -0.10
PKS9  79.0 354    Pg    8:25:26.15    1.51

474.
```

```
 2019-05-30  time:  9:51:09.75 UTC  ML= 2.0
   lat: 48.550N  lon: 20.773E  h=  0.0 km
                 erh= 2.0km    erz= 2.4km
   nr= 18        gap= 94       rms=0.83
   Locality: Komjáti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.5 251    Pg    9:51:14.37    0.60
                  Sg      51:16.83   -0.08
ABAH  44.6 129    Pg    9:51:18.39    0.68
                  Sg      51:24.25    0.33
PSZ   95.9 223    Pg    9:51:27.35    0.48
                  Sg      51:40.32    0.09
NIE  102.3 341    Pg    9:51:30.15    2.13
STHS 102.3  20   ePg    9:51:27.50   -0.52
                 eSg      51:41.20   -1.07
LANS 116.8 305    Pg    9:51:29.97   -0.63
KOLS 118.3  69    Pg    9:51:31.42    0.56
                  Sg      51:46.29   -1.05
A336 136.1 255    Pn    9:51:33.81    0.06
                  Sn      51:51.28   -1.18
TRPA 139.0 110    Pn    9:51:33.91   -0.20
                  Sn      51:50.95   -2.17
VYHS 143.2 268    Pn    9:51:34.69    0.05
                  Sn      51:52.49   -1.57

475.
```

```
 2019-05-30  time: 11:02:21.61 UTC  ML= 1.3
   lat: 45.556N  lon: 17.746E  h= 15.6 km
                 erh= 1.6km    erz= 0.4km
   nr=  8        gap=338       rms=0.09
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  54.0  47    Pg   11:02:31.53   -0.12
                  Sg      02:39.59    0.11
KOVH  65.2  25    Pg   11:02:33.62    0.03
                  Sg      02:42.85   -0.08
```

```
PKSM 100.7  44    Pn   11:02:39.35    0.14
                  Sn      02:52.90   -0.04
MORH 101.2  44    Pn   11:02:39.22   -0.05
                  Sn      02:53.08    0.03
```

476.

```
 2019-05-30  time: 11:25:43.31 UTC  ML= 1.2
   lat: 47.566N  lon: 18.434E  h=  0.0 km
                erh= 2.7km    erz= 441km
   nr=  7       gap=166       rms=0.29
   Locality: Tatabánya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  19.6 189    Pg   11:25:46.45   -0.36
                  Sg      25:49.63    0.09
CSKK  26.0 210    Pg   11:25:47.76   -0.20
                  Sg      25:52.07    0.48
PKB1  91.0 163    Sg   11:26:12.45    0.20
VYHS 107.5  16    Pg   11:26:02.81    0.30
                  Sg      26:17.27   -0.21
```

477.

```
 2019-05-31  time:  8:34:00.70 UTC  ML= 1.8
   lat: 48.492N  lon: 18.762E  h=  0.0 km
                erh= 1.1km    erz= 167km
   nr=  6       gap=244       rms=0.10
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS   5.5  88    Pg    8:34:01.53   -0.15
                  Sg      34:02.56    0.11
A336  33.7 149    Pg    8:34:06.76    0.04
                  Sg      34:11.31   -0.11
SRO   82.5 204    Pg    8:34:15.54    0.10
                  Sg      34:26.92   -0.01
```

478.

```
 2019-05-31  time:  8:41:03.49 UTC  ML= 1.2
   lat: 47.303N  lon: 17.643E  h=  0.0 km
                erh= 0.2km    erz=66.1km
   nr=  7       gap=143       rms=0.04
   Locality: Homokbödöge
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  16.7 208    Pg    8:41:06.41   -0.05
                  Sg      41:08.85    0.07
EGYH  26.7 298    Pg    8:41:08.23   -0.03
                  Sg      41:12.03    0.05
PKST  30.0  99    Pg    8:41:08.88    0.03
                  Sg      41:13.06    0.03
CSKK  47.2  82    Sg    8:41:18.44   -0.05
```

479.

```
 2019-05-31  time:  9:54:02.95 UTC  ML= 1.0
   lat: 46.130N  lon: 18.031E  h=  0.0 km
                erh= 3.5km    erz= 394km
   nr=  5       gap=292       rms=0.18
   Locality: Hetvehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   7.1 131    PgU   9:54:04.29    0.08
                  Sg      54:05.41    0.21
PKSV  31.9 148    Sg    9:54:12.61   -0.47
PKSM  48.0  79    Pg    9:54:11.54    0.02
                  Sg      54:18.11   -0.09
```

480.

```
 2019-05-31  time:  9:55:36.03 UTC  ML= 1.1
   lat: 46.132N  lon: 17.984E  h=  0.0 km
                erh= 2.9km    erz= 419km
   nr=  8       gap=297       rms=0.30
   Locality: Dinnyeberki
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  10.2 118    Pg    9:55:38.20    0.36
                  Sg      55:39.63    0.37
PKSV  34.1 142    Pg    9:55:41.71   -0.40
                  Sg      55:46.65   -0.21
PKSM  51.6  80    Pg    9:55:45.43    0.20
                  Sg      55:52.09   -0.32
MORH  51.8  80    Pg    9:55:45.38    0.09
                  Sg      55:52.15   -0.36
```

481.

```
 2019-05-31  time: 10:43:22.63 UTC  ML= 0.9
   lat: 47.197N  lon: 18.289E  h=  0.0 km
                erh= 2.4km    erz= 303km
   nr=  6       gap=270       rms=0.18
   Locality: Sárkeszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.6 353    Pg   10:43:26.02    0.06
                  Sg      43:28.80    0.25
PKST  20.5 290    Pg   10:43:26.43    0.14
                  Sg      43:28.73   -0.41
PKSG  23.0  20    Pg   10:43:26.60   -0.14
                  Sg      43:29.90   -0.05
```

482.

```
 2019-06-03  time:  8:09:30.86 UTC  ML= 2.0
   lat: 47.294N  lon: 17.645E  h=  0.0 km
                erh= 1.9km    erz= 2.3km
   nr= 16       gap=139       rms=0.66
   Locality: Homokbödöge
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  15.9 210    Pg    8:09:34.12    0.41
                  Sg      09:36.55    0.63
EGYH  27.4 300    Pg    8:09:35.76    0.01
                  Sg      09:39.85    0.29
PKST  29.7  97    Pg    8:09:36.52    0.35
                  Sg      09:40.50    0.19
CSKK  47.1  81    Sg    8:09:45.75   -0.10
TIH   47.7 157    Pg    8:09:38.24   -1.13
                  Sg      09:46.04    0.03
PKSG  57.4  79    Pg    8:09:41.37    0.26
KOVH 138.5 165    Pn    8:09:56.28    1.12
                  Sn      10:13.09   -1.02
KOGS 141.9 229    Sn    8:10:13.48   -1.41
PKSM 142.3 148    Pn    8:09:55.73    0.08
                  Sn      10:14.44   -0.54
CONA 151.5 298    Sn    8:10:15.20   -1.81
```

483.

```
 2019-06-03  time:  9:48:02.91 UTC  ML= 2.1
   lat: 48.247N  lon: 21.225E  h=  0.0 km
                erh= 1.5km    erz= 2.9km
   nr= 10       gap=152       rms=0.38
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   5.6  11    Pg    9:48:04.05    0.14
```

```
                  Sg      48:05.02    0.33
KECS  60.8 296    Pg    9:48:13.95    0.19
                  Sg      48:21.87   -0.36
TRPA  98.6  98    Pg    9:48:20.03   -0.48
PSZ  105.7 250    Sg    9:48:36.38   -0.12
KOLS 108.7  45   ePg    9:48:22.60    0.29
                 eSg      48:37.60    0.15
STHS 130.1   1   eSg    9:48:43.00   -1.27
VYHS 179.1 279    Sn    9:48:55.81    0.62
```

484.

```
 2019-06-03  time: 11:00:30.01 UTC  ML= 1.9
   lat: 48.882N  lon: 20.931E  h=  0.0 km
                 erh= 2.5km    erz= 3.0km
   nr= 16        gap= 66       rms=0.91
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  55.2 216    Pg   11:00:40.49    0.62
                  Sg      00:47.56    0.00
STHS  63.6  21   ePg   11:00:41.90    0.53
                 eSg      00:51.00    0.77
ABAH  69.1 161    Pg   11:00:42.62    0.27
                  Sg      00:51.54   -0.43
NIE   74.8 323    Sg   11:00:52.68   -1.10
KOLS  98.5  87    Pg   11:00:48.12    0.51
LANS 111.1 286    Sg   11:01:03.88   -1.45
PSZ  131.9 216    Pn   11:00:54.08    0.59
                  Sn      01:10.48   -1.32
TRPA 145.3 125    Pn   11:00:54.02   -1.14
                  Sn      01:13.23   -1.55
A336 159.9 243    Sn   11:01:18.24    0.22
VYHS 160.2 254    Pn   11:00:59.04    2.02
                  Sn      01:17.14   -0.95
```

485.

```
 2019-06-04  time:  8:20:11.26 UTC  ML= 1.7
   lat: 47.874N  lon: 19.843E  h=  0.0 km
                 erh= 4.1km    erz= ***km
   nr= 10        gap=192       rms=0.78
   Locality: Mátraszentimre
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ    6.3  38    Pg    8:20:12.89    0.51
                  Sg      20:14.43    1.18
PENC  43.0 258    Pg    8:20:18.55   -0.40
                  Sg      20:25.41    0.47
A336  74.6 302    Sg    8:20:34.57   -0.39
KECS  82.9  35    Sg    8:20:36.89   -0.73
VYHS 101.8 313    Pg    8:20:30.07    0.63
                  Sg      20:41.57   -2.05
ABAH 114.1  66    Pg    8:20:31.92    0.28
                  Sg      20:46.16   -1.38
```

486.

```
 2019-06-04  time:  9:01:41.01 UTC  ML= 1.5
   lat: 48.591N  lon: 20.781E  h=  0.0 km
                 erh= 3.8km    erz= 4.4km
   nr= 12        gap=128       rms=1.00
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.9 241    Pg    9:01:45.28   -0.17
                  Sg      01:49.16    0.24
ABAH  47.2 134    Pg    9:01:49.54    0.10
                  Sg      01:55.51   -0.51
PSZ   99.6 221    Pg    9:01:59.69    0.89
                  Sg      02:12.45   -0.23
LANS 114.7 303    Pg    9:02:00.93   -0.56
KOLS 116.1  71   ePg    9:02:06.50    4.75
                 eSg      02:17.90   -0.03
TRPA 140.0 111    Sn    9:02:22.78   -1.83
VYHS 144.0 266    Pn    9:02:06.52    0.52
                  Sn      02:23.98   -1.51
```

487.

```
 2019-06-04  time:  9:50:17.21 UTC  ML= 0.9
   lat: 47.199N  lon: 18.303E  h=  0.0 km
                 erh= 0.9km    erz= 1.7km
   nr=  8        gap=121       rms=0.22
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.5 350    Pg    9:50:20.50   -0.02
                  Sg      50:22.57   -0.53
PKST  21.4 288    Pg    9:50:21.05    0.02
                  Sg      50:24.05    0.03
PKSG  22.4  17    Pg    9:50:21.44    0.22
                  Sg      50:24.56    0.22
PKSM 112.7 167    Sg    9:50:53.02   -0.02
PSZ  144.0  56    Sn    9:51:01.22   -0.47
```

488.

```
 2019-06-04  time: 10:59:21.97 UTC  ML= 2.0
   lat: 48.891N  lon: 20.974E  h=  0.0 km
                 erh= 2.3km    erz= 2.5km
   nr= 17        gap= 90       rms=0.84
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  57.9 218    Pg   10:59:32.51    0.20
                  Sg      59:39.53   -0.84
STHS  61.6  19   ePg   10:59:33.30    0.33
                 eSg      59:42.40    0.84
NIE   75.9 321    Sg   10:59:45.38   -0.72
KOLS  95.3  87    Sg   10:59:51.23   -1.04
LANS 113.9 285    Pg   10:59:41.92   -0.38
                  Sg      59:57.49   -0.67
PSZ  134.5 216    Pn   10:59:46.25    0.48
                  Sn   11:00:02.33   -2.01
TRPA 143.3 126    Pn   10:59:47.77    0.90
                  Sn   11:00:05.18   -1.11
A336 163.1 243    Sn   10:60:10.83    0.14
VYHS 163.5 254    Sn   10:60:09.40   -1.37
OJC  170.5 330    Pn   10:59:51.34    1.09
                  Sn   11:00:12.45    0.13
PENC 175.3 226    Sn   10:60:14.69    1.30
```

489.

```
 2019-06-04  time: 11:05:28.25 UTC  ML= 1.4
   lat: 47.052N  lon: 18.028E  h=  0.0 km
                 erh= 1.9km    erz= 706km
   nr= 12        gap= 90       rms=0.58
   Locality: Balatonfűzfő
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
TIH   19.7 211    Pg   11:05:31.98    0.20
                  Sg      05:34.28   -0.25
PKST  23.0   1    Pg   11:05:32.67    0.30
                  Sg      05:35.30   -0.28
CSKK  38.8  27    Pg   11:05:35.20    0.01
                  Sg      05:40.05   -0.55
MPLH  39.3 290    Pg   11:05:36.18    0.90
                  Sg      05:39.94   -0.81
PKB1  65.4 117    Pg   11:05:40.23    0.30
PKB5  74.1 133    Pg   11:05:42.02    0.52
PKSM 104.5 153    Pg   11:05:46.08   -0.84
                  Sg      05:59.97   -1.51
```

490.

```
 2019-06-05  time:  8:55:48.80 UTC  ML= 1.6
   lat: 48.585N  lon: 20.764E  h=  0.0 km
                 erh= 1.5km    erz= 3.3km
   nr= 11        gap= 89       rms=0.51
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.5 241    Pg    8:55:53.29    0.30
                  Sg      55:56.32    0.06
ABAH  47.6 132    Pg    8:55:57.59    0.29
                  Sg      56:03.61   -0.32
PSZ   98.3 221    Pg    8:56:07.04    0.69
                  Sg      56:17.95   -2.10
STHS  98.9  21   ePg    8:56:06.50    0.04
                 eSg      56:20.10   -0.14
LANS 114.0 303    Pg    8:56:08.91   -0.25
KOLS 117.5  71    Sg    8:56:25.64   -0.51
VYHS 142.8 266    Sn    8:56:31.95   -1.05
```

491.

```
 2019-06-05  time:  9:38:37.69 UTC  ML= 0.7
   lat: 47.230N  lon: 18.273E  h=  0.0 km
                 erh= 3.3km    erz= 395km
   nr=  6        gap=254       rms=0.23
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  14.8 356    Pg    9:38:40.58    0.24
                  Sg      38:41.78   -0.62
PKST  18.3 280    Pg    9:38:40.80   -0.17
                  Sg      38:43.77    0.25
PKSG  20.1  26    Pg    9:38:41.28    0.00
                  Sg      38:44.08    0.01
```

492.

```
 2019-06-05  time: 10:11:26.91 UTC  ML= 1.4
   lat: 48.678N  lon: 19.931E  h=  0.0 km
                 erh= 2.3km    erz= 889km
   nr= 11        gap= 82       rms=0.72
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  46.3 118    Sg   10:11:40.96   -0.67
LANS  62.6 327    Pg   10:11:38.25    0.17
                  Sg      11:46.07   -0.72
VYHS  83.3 256    Pg   10:11:42.09    0.30
                  Sg      11:51.97   -1.43
PSZ   84.5 182    Pg   10:11:42.47    0.47
                  Sg      11:53.66   -0.11
A336  84.9 234    Sg   10:11:53.45   -0.43
ABAH 105.6 114    Pg   10:11:46.93    1.16
                  Sg      11:59.21   -1.28
STHS 126.3  49   ePg   10:11:49.80    0.33
                 eSg      12:03.40   -3.66*
```

493.

```
 2019-06-06  time:  5:57:31.78 UTC  ML= 1.2
   lat: 47.291N  lon: 18.351E  h=  0.0 km
                 erh= 1.1km    erz= 2.5km
   nr= 10        gap=110       rms=0.32
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  10.5 320    Pg    5:57:33.53   -0.13
                  Sg      57:34.69   -0.44
PKSG  11.6  15    Pg    5:57:33.80   -0.06
                  Sg      57:35.93    0.45
PKST  24.2 262    Pg    5:57:36.34    0.24
                  Sg      57:39.75    0.28
MORH 121.6 169    Sg    5:58:10.05   -0.38
PKSM 122.0 170    Pg    5:57:53.94    0.38
                  Sg      58:10.23   -0.32
PSZ  135.5  59    Sn    5:58:13.79   -0.58
```

494.

```
 2019-06-06  time:  7:57:34.15 UTC  ML= 1.5
   lat: 48.521N  lon: 19.317E  h=  0.0 km
                 erh= 2.5km    erz= 674km
   nr=  6        gap=138       rms=0.41
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  35.6 265    Pg    7:57:40.41   -0.11
                  Sg      57:44.52   -0.96
A336  39.7 216    Pg    7:57:41.78    0.53
                  Sg      57:46.75   -0.03
LANS  70.9   9   eSg    7:57:56.80    0.12
PSZ   79.6 147    Sg    7:57:59.27   -0.18
```

495.

```
 2019-06-06  time:  8:20:00.67 UTC  ML= 1.5
   lat: 48.595N  lon: 20.747E  h=  0.0 km
                 erh= 1.3km    erz= 2.3km
   nr=  9        gap=111       rms=0.29
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.9 237    Pg    8:20:05.11    0.34
                  Sg      20:07.68   -0.29
ABAH  49.3 132    Pg    8:20:09.88    0.41
                  Sg      20:16.06   -0.28
PSZ   98.3 220    Pg    8:20:18.08   -0.15
STHS  98.4  22   ePg    8:20:18.20   -0.04
LANS 112.4 303    Pg    8:20:20.75    0.00
VYHS 141.6 265    Pn    8:20:25.21   -0.15
                  Sn      20:43.09   -1.52
```

496.

```
 2019-06-06  time:  8:30:53.11 UTC  ML= 1.3
   lat: 46.022N  lon: 18.098E  h=  0.0 km
                 erh= 2.5km    erz= 354km
   nr=  6        gap=298       rms=0.20
   Locality: Zók
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   7.4   1    Pg    8:30:54.27   -0.16
                  Sg      30:55.64    0.17
PKSM  47.0  63    Pg    8:31:01.70    0.20
                  Sg      31:07.60   -0.45
MORH  47.4  63    Sg    8:31:08.26    0.08
PKB5  80.5  38    Sg    8:31:18.72    0.04
```

497.

```
 2019-06-06  time:  8:46:34.99 UTC  ML= 1.3
   lat: 47.324N  lon: 18.449E  h=  0.0 km
                 erh= 2.6km    erz= 512km
   nr=  7        gap=204       rms=0.34
   Locality: Zámoly
   Comments: probably explosion
```

sta	dist	azm	phase	hr mn sec	res
PKSG	8.7	329	PgU	8:46:36.73	0.18
			Sg	46:37.20	-0.56
CSKK	14.9	287	Pg	8:46:37.95	0.30
			Sg	46:39.92	0.19
PKST	32.2	257	Pg	8:46:40.85	0.10
			Sg	46:44.45	-0.78
PKSM	124.5	173	Sg	8:47:14.28	-0.29

498.

2019-06-06 time: 10:46:47.33 UTC ML= 1.4
lat: 48.508N lon: 18.674E h= 0.0 km
erh= 1.0km erz= 1.0km
nr= 5 gap=264 rms=0.32
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
VYHS	12.1	97	Pg	10:46:49.62	0.12
			Sg	46:50.84	-0.34
A336	38.9	142	Sg	10:46:59.77	0.07
PKSG	125.9	190	Sg	10:47:27.86	0.52
CSKK	131.0	194	Sn	10:47:28.42	-0.50

499.

2019-06-07 time: 7:54:51.95 UTC ML= 1.8
lat: 47.728N lon: 18.497E h= 0.0 km
erh= 3.3km erz= ***km
nr= 10 gap=114 rms=1.02
Locality: Lábatlan
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
SRO	16.7	305	Pg	7:54:55.23	0.29
			Sg	54:58.21	0.93
PKSG	38.2	192	Pg	7:54:59.29	0.52
			Sg	55:03.84	-0.25
CSKK	44.3	204	Sg	7:55:05.33	-0.69
PKST	62.7	214	Sg	7:55:12.30	0.42
VYHS	88.9	17	eSg	7:55:22.50	2.30
MPLH	95.2	229	Sg	7:55:21.20	-1.00
PSZ	106.8	79	Sg	7:55:24.86	-1.03
MODS	115.9	308	eSg	7:55:26.60	-2.19

500.

2019-06-07 time: 8:10:00.82 UTC ML= 1.3
lat: 47.603N lon: 16.315E h= 10.0 km
erh= 2.2km erz= 1.6km
nr= 14 gap=119 rms=0.64
Locality: Austria
Comments:

sta	dist	azm	phase	hr mn sec	res
RONA	10.9	353	Pg	8:10:03.18	-0.28
			Sg	10:05.80	0.28
SOP	20.4	64	Pg	8:10:04.30	-0.57
			Sg	10:07.06	-0.97
CONA	49.7	317	Pg	8:10:10.42	0.55
			Sg	10:17.14	0.21
ARSA	71.4	237	Sg	8:10:23.31	-0.44
EGYH	79.3	105	Sg	8:10:26.96	0.73
MPLH	104.2	117	S*	8:10:34.02	-0.02
MODS	111.8	40	ePn	8:10:19.70	-0.82
			eSn	10:35.00	-0.89
PKST	135.2	106	Sn	8:10:42.19	1.11
KRUC	162.4	2	Pn	8:10:27.85	1.03
			Sn	10:47.13	0.03

501.

2019-06-07 time: 9:28:41.51 UTC ML= 1.0
lat: 47.232N lon: 18.250E h= 0.0 km
erh= 2.7km erz= 3.5km
nr= 8 gap=232 rms=0.37
Locality: Iszkaszentgyörgy
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	14.6	3	Pg	9:28:44.02	-0.10
			Sg	28:46.36	0.20
PKST	16.6	281	Pg	9:28:44.42	-0.06
			Sg	28:46.14	-0.66
PKSG	20.7	31	Pg	9:28:45.13	-0.08
			Sg	28:48.44	0.34
MPLH	54.3	263	Pg	9:28:51.71	0.51
VYHS	147.0	17	eSn	9:29:25.60	-1.06

502.

2019-06-07 time: 10:21:59.70 UTC ML= 1.7
lat: 48.608N lon: 20.821E h= 0.0 km
erh= 2.9km erz= 7.7km
nr= 8 gap=130 rms=0.72
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	28.4	241	Pg	10:22:04.83	0.07
			Sg	22:07.85	-0.86
ABAH	46.5	138	Sg	10:22:14.08	-0.39
PSZ	103.0	222	Pg	10:22:18.97	0.88
			Sg	22:31.83	-0.60
KOLS	112.7	71	eSg	10:22:34.70	-0.83
LANS	116.2	301	Pg	10:22:20.12	-0.32
VYHS	147.1	265	ePn	10:22:26.50	1.43

503.

2019-06-07 time: 11:00:30.30 UTC ML= 1.7
lat: 48.875N lon: 20.907E h= 0.0 km
erh= 1.4km erz= 2.0km
nr= 12 gap= 77 rms=0.34
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	53.5	215	Pg	11:00:40.04	0.19
			Sg	00:47.25	-0.05
STHS	65.1	22	ePg	11:00:42.30	0.38
			eSg	00:50.00	-0.98
ABAH	68.9	159	Pg	11:00:42.44	-0.16
			Sg	00:52.05	-0.15
KOLS	100.4	86	ePg	11:00:48.60	0.38
			eSg	01:01.20	-1.00
PSZ	130.1	215	Pg	11:00:53.73	0.19
			Sg	01:11.05	-0.62
VYHS	158.3	254	Sn	11:01:17.88	-0.07
OJC	169.7	332	Sn	11:01:20.08	-0.40

504.

2019-06-08 time: 10:09:55.23 UTC ML= 1.4
lat: 48.051N lon: 19.641E h= 0.0 km
erh= 1.6km erz= 473km
nr= 8 gap=103 rms=0.33
Locality: Sóshartyán
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PSZ	24.0	128	Pg	10:09:59.59	0.08
			Sg	10:02.88	0.02
PENC	39.5	223	Pg	10:10:01.86	-0.43

```
                  Sg      10:08.04    0.24
A336  51.9 293    Pg   10:10:04.96    0.46
                  Sg      10:11.90    0.17
VYHS  77.4 309    Sg   10:10:19.07   -0.77
KECS  79.0  53    Pg   10:10:09.30   -0.03
```

505.

```
 2019-06-08  time: 10:11:32.62 UTC  ML= 1.3
   lat: 48.034N  lon: 19.648E  h=  0.0 km
                 erh= 1.9km    erz= 415km
   nr=  6        gap=190       rms=0.25
   Locality: Lucfalva
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   22.4 125    Pg   10:11:36.86    0.23
                  Sg      11:39.53   -0.22
PENC  38.5 225    Pg   10:11:39.33   -0.17
                  Sg      11:44.88    0.01
A336  53.2 295    Pg   10:11:42.38    0.26
                  Sg      11:49.03   -0.50
```

506.

```
 2019-06-09  time:  8:52:06.97 UTC  ML= 1.6
   lat: 46.090N  lon: 17.024E  h= 11.1 km
                 erh= 1.7km    erz= 1.6km
   nr= 16        gap=152       rms=0.50
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP1  31.2  25    Pg    8:52:12.90    0.02
                  Sg      52:17.16   -0.32
TMP2  39.4  50    Pg    8:52:14.32    0.04
                  Sg      52:19.72   -0.26
BEHE  46.4 336    Pg    8:52:15.70    0.21
                  Sg      52:21.94   -0.21
KOVH  83.2  90    Pg    8:52:22.41    0.46
                  Sg      52:33.33   -0.31
PTJ   85.3 256    Pg    8:52:23.16    0.84
                  Sg      52:33.12   -1.18
PKSV  97.7 103    Pg    8:52:24.80    0.27
                  Sg      52:37.20   -1.03
PKSM 125.7  84    Pn    8:52:27.62   -0.62
                  Sn      52:44.47   -0.37
MORH 125.9  84    Sn    8:52:44.94    0.04
PKB5 143.2  67    Sn    8:52:49.55    0.81
```

507.

```
 2019-06-10  time:  7:36:08.93 UTC  ML= 1.4
   lat: 48.616N  lon: 20.736E  h=  0.0 km
                 erh= 2.0km    erz= 3.7km
   nr= 15        gap= 85       rms=0.67
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.6 231    Pg    7:36:13.48    0.33
                  Sg      36:17.20    0.76
ABAH  51.5 134    Pg    7:36:17.70   -0.42
                  Sg      36:24.44   -0.85
STHS  96.5  23   ePg    7:36:26.40    0.24
                 eSg      36:38.50   -1.11
PSZ   99.6 219    Pg    7:36:26.76    0.05
                  Sg      36:40.00   -0.57
LANS 110.4 303    Pg    7:36:28.44   -0.20
                  Sg      36:43.45   -0.57
KOLS 118.4  73   ePg    7:36:32.30    2.23
                 eSg      36:46.60    0.04
A336 135.4 252    Pn    7:36:33.22    0.38
VYHS 140.9 264    Pn    7:36:33.89    0.36
                  Sn      36:50.58   -2.14
```

508.

```
 2019-06-10  time: 14:27:48.06 UTC  ML= 2.2
   lat: 45.536N  lon: 16.151E  h=  8.5 km
                 erh= 3.5km    erz= 2.5km
   nr= 24        gap=164       rms=1.03
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
ZAG   34.8 339    Pg   14:27:54.70    0.25
                  Sg      28:00.09    0.65
PTJ   43.2 340    Pg   14:27:56.23    0.32
                  Sg      28:01.32   -0.72
CRES  62.9 301    Pg   14:27:59.16   -0.24
                  Sg      28:07.38   -0.87
KOGS 101.7   4    Pg   14:28:05.71   -0.57
                  Sg      28:19.72   -0.78
GROS 114.5 334    Pn   14:28:08.76    0.48
                  Sn      28:21.57   -2.49
BEHE 114.6  25    Pn   14:28:08.33    0.03
                  Sn      28:23.04   -1.04
BLY  119.4 137    Pn   14:28:08.73   -0.17
                  Sn      28:22.27   -2.89
TMP1 121.0  42    Sn   14:28:24.03   -1.47
SOKA 153.6 326    Pn   14:28:14.38    1.22
                  Sn      28:32.67   -0.07
KOVH 163.5  68    Sn   14:28:34.66   -0.28
OBKA 164.6 311    Pn   14:28:17.03    2.50
                  Sn      28:36.15    0.97
PKSV 168.3  77    Sn   14:28:36.43    0.43
ARSA 196.6 346    Sn   14:28:44.06    1.77
PKSM 207.5  69    Sn   14:28:47.05    2.35
MORH 207.8  69    Sn   14:28:46.81    2.03
```

509.

```
 2019-06-11  time:  8:42:32.58 UTC  ML= 1.7
   lat: 45.530N  lon: 17.832E  h= 10.0 km
                 erh= 1.6km    erz= 4.3km
   nr=  7        gap=339       rms=0.07
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  51.5  39    Pg    8:42:41.95   -0.01
                  Sg      42:49.29    0.02
KOVH  65.4  19    Sg    8:42:53.61   -0.01
PKSM  98.4  40    Pg    8:42:50.36    0.11
                  Sg      43:03.97   -0.06
MORH  98.9  40    Pg    8:42:50.23   -0.10
                  Sg      43:04.21    0.03
```

510.

```
 2019-06-11  time:  8:45:37.36 UTC  ML= 1.8
   lat: 48.604N  lon: 20.769E  h=  0.0 km
                 erh= 1.6km    erz= 2.5km
   nr= 13        gap= 86       rms=0.47
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.9 237    Pg    8:45:42.17    0.37
                  Sg      45:45.17   -0.09
ABAH  48.8 135    Pg    8:45:46.24    0.17
                  Sg      45:52.50   -0.36
STHS  96.9  21   ePg    8:45:55.00    0.34
                 eSg      46:08.30    0.15
PSZ  100.1 220    Pg    8:45:54.59   -0.65
                  Sg      46:09.55    0.37
LANS 113.2 303    Pg    8:45:57.59    0.01
KOLS 116.5  72    Sg    8:46:13.72   -0.66
A336 137.4 253    Pn    8:46:02.07    0.55
```

```
                  Sn      46:19.11   -1.26
VYHS 143.3 265   ePn    8:46:02.50    0.24
                 eSn      46:18.50   -3.17*
```

511.

```
 2019-06-11  time:  9:23:26.82 UTC  ML= 1.5
   lat: 47.313N  lon: 18.441E  h=  0.0 km
                 erh= 3.3km    erz= 3.5km
   nr=  8        gap=200       rms=0.40
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   9.5 336    PgU   9:23:28.78    0.27
CSKK  14.7 292    Pg    9:23:29.68    0.23
                  Sg      23:31.19   -0.31
PKST  31.4 259    Pg    9:23:32.72    0.30
                  Sg      23:36.05   -0.74
PSZ  128.3  58    Sg    9:24:07.26   -0.34
VYHS 134.5  13    Pn    9:23:50.72    0.09
                  Sn      24:07.91   -1.29
```

512.

```
 2019-06-11  time: 10:53:46.81 UTC  ML= 1.5
   lat: 48.342N  lon: 19.836E  h=  0.0 km
                 erh= 2.8km    erz= 876km
   nr=  8        gap=103       rms=0.62
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   47.3 175    Pg   10:53:55.50    0.25
                  Sg      54:01.85    0.01
KECS  50.6  72    Pg   10:53:55.26   -0.58
A336  63.3 259    Sg   10:54:06.58   -0.34
VYHS  75.9 283    Pg   10:54:00.75    0.38
                  Sg      54:09.83   -1.11
LANS  93.9 343   ePg   10:54:04.70    1.12
                 eSg      54:16.10   -0.56
```

513.

```
 2019-06-11  time: 11:11:09.33 UTC  ML= 0.9
   lat: 47.100N  lon: 18.028E  h=  0.0 km
                 erh= 1.9km    erz= 642km
   nr=  9        gap=114       rms=0.49
   Locality: Királyszentistván
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  17.6   2    Pg   11:11:12.12   -0.35
                  Sg      11:14.64   -0.29
TIH   24.5 205    Sg   11:11:18.40    1.27
CSKK  34.1  31    Sg   11:11:20.70    0.54
MPLH  37.9 282    Sg   11:11:21.67    0.30
PKSG  42.5  40    Pg   11:11:17.04    0.13
                  Sg      11:23.35    0.53
MORH 109.1 154    Pg   11:11:28.33   -0.47
                  Sg      11:43.40   -0.59
```

514.

```
 2019-06-12  time: 10:00:51.91 UTC  ML= 1.0
   lat: 47.207N  lon: 18.257E  h=  0.0 km
                 erh= 2.3km    erz= 289km
   nr=  6        gap=263       rms=0.17
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  17.4   1    Pg   10:00:55.16    0.14
                  Sg      00:57.22   -0.22
PKST  17.9 289    Pg   10:00:55.19    0.09
                  Sg      00:57.40   -0.19
PKSG  22.9  26    Pg   10:00:55.84   -0.16
                  Sg      00:59.48    0.28
```

515.

```
 2019-06-12  time: 10:48:51.40 UTC  ML= 2.2
   lat: 48.251N  lon: 21.242E  h=  0.0 km
                 erh= 1.7km    erz= 3.1km
   nr= 10        gap=152       rms=0.43
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   5.0 358    PgU  10:48:52.52    0.22
                  Sg      48:53.08    0.08
KECS  61.7 295    Pg   10:49:02.62    0.20
                  Sg      49:10.61   -0.41
TRPA  97.4  98    Pg   10:49:08.34   -0.45
PSZ  107.0 250    Pg   10:49:10.76    0.25
                  Sg      49:24.93   -0.48
KOLS 107.4  45    Pg   10:49:11.14    0.55
                  Sg      49:22.03   -3.52*
NIE  146.7 332    Sn   10:49:35.77   -0.71
```

516.

```
 2019-06-13  time:  7:55:26.59 UTC  ML= 0.8
   lat: 47.310N  lon: 18.313E  h=  0.0 km
                 erh= 2.1km    erz= 363km
   nr=  6        gap=222       rms=0.27
   Locality: Söréd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   7.1 326    PgU   7:55:27.86    0.00
                  Sg      55:28.45   -0.40
PKSG  10.8  33    PgU   7:55:28.52    0.00
                  Sg      55:30.07    0.05
PKST  21.9 255    Pg    7:55:30.89    0.39
                  Sg      55:33.10   -0.44
```

517.

```
 2019-06-13  time: 12:59:19.19 UTC  ML= 1.3
   lat: 47.808N  lon: 16.250E  h= 14.5 km
                 erh= 3.0km    erz= 2.1km
   nr= 11        gap=112       rms=0.44
   Locality: Austria
   Comments:

sta   dist azm  phase  hr mn  sec     res
RONA  12.6 164    Pg   12:59:22.87    0.24
                  Sg      59:25.00   -0.30
SOP   27.0 121    Pg   12:59:24.92    0.25
                  Sg      59:28.55   -0.39
CONA  31.9 295    Pg   12:59:25.63    0.17
                  Sg      59:30.02   -0.33
ARSA  82.7 221    S*   12:59:43.81   -2.02
KRUC 139.8   4    Pn   12:59:42.32    0.52
                  Sn      59:58.74   -0.69
VRAC 168.7   9    Pn   12:59:45.62    0.22
                  Sn   13:00:05.30   -0.55
```

518.

```
 2019-06-13  time: 17:47:05.50 UTC  ML= 1.6
   lat: 47.803N  lon: 16.233E  h= 14.7 km
                 erh= 2.4km    erz= 1.5km
   nr= 15        gap= 76       rms=0.68
   Locality: Austria
   Comments:
```

```
sta   dist azm  phase  hr mn  sec     res
RONA  12.4 158    Pg   17:47:09.50    0.57
                  Sg      47:11.61    0.00
SOP   27.7 119    Pg   17:47:11.73    0.62
                  Sg      47:14.82   -0.66
CONA  31.1 297    Pg   17:47:11.13   -0.52
ARSA  81.4 221    P*   17:47:20.39    0.13
                  S*      47:30.40   -1.37
EGYH  93.0 117    P*   17:47:22.64    0.61
MODS 100.4  51   eP*   17:47:22.90   -0.24
                 eS*      47:35.90   -1.00
A339 106.6  88    Sn   17:47:36.93   -1.40
MPLH 121.0 126    Sn   17:47:41.01   -0.52
KRUC 140.5   5    Pn   17:47:28.90    0.72
TREC 174.8 342   eSn   17:47:54.40    0.92
ZVC  236.1 320   eSn   17:48:09.90    2.82*
```

519.

```
 2019-06-14  time:  6:52:21.90 UTC  ML= 1.3
   lat: 46.045N  lon: 18.344E  h=  0.0 km
                 erh= 1.2km    erz= 300km
   nr=  8        gap=151       rms=0.22
   Locality: Magyarsarlós
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSV  18.8 202    Sg    6:52:27.94    0.06
KOVH  19.5 284    Pg    6:52:25.30   -0.08
                  Sg      52:28.39    0.29
PKSM  29.5  51    Pg    6:52:27.22    0.05
                  Sg      52:31.19   -0.09
MORH  30.0  51    Pg    6:52:27.29    0.04
                  Sg      52:31.40   -0.02
PKB1  89.1  23    Sg    6:52:48.62   -1.60
```

520.

```
 2019-06-14  time:  7:47:18.97 UTC  ML= 1.2
   lat: 48.774N  lon: 19.333E  h=  0.0 km
                 erh= 1.1km    erz= 1.9km
   nr= 10        gap=143       rms=0.32
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
LANS  43.1  13    Pg    7:47:26.82    0.16
                  Sg      47:32.59   -0.07
VYHS  48.0 230    Pg    7:47:27.58    0.04
                  Sg      47:34.78    0.55
A336  65.0 202    Pg    7:47:30.66    0.09
                  Sg      47:39.58   -0.04
PSZ  103.8 156    Pg    7:47:37.55    0.04
                  Sg      47:50.70   -1.28
MODS 158.1 254   ePn    7:47:45.30   -0.41
                 eSn      48:05.50   -1.07
```

521.

```
 2019-06-14  time:  9:28:07.94 UTC  ML= 0.9
   lat: 47.195N  lon: 18.288E  h=  0.0 km
                 erh= 1.2km    erz= 160km
   nr=  6        gap=271       rms=0.10
   Locality: Sárkeszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.8 354    Pg    9:28:11.12   -0.17
                  Sg      28:13.90    0.00
PKST  20.4 290    Pg    9:28:11.64    0.05
                  Sg      28:14.38   -0.05
PKSG  23.2  20    Pg    9:28:12.19    0.11
                  Sg      28:15.34    0.03
```

522.

```
 2019-06-14  time:  9:59:24.81 UTC  ML= 1.3
   lat: 47.547N  lon: 16.301E  h=  7.6 km
                 erh= 3.1km    erz= 2.3km
   nr= 11        gap=189       rms=0.63
   Locality: Austria
   Comments:

sta   dist azm  phase  hr mn  sec     res
RONA  16.9 359    Pg    9:59:28.19    0.06
                  Sg      59:30.93    0.21
SOP   24.6  52    Pg    9:59:29.47    0.06
                  Sg      59:31.66   -1.33
CONA  53.6 322    Pg    9:59:35.37    0.88
                  Sg      59:41.41   -0.63
ARSA  67.3 241    Sg    9:59:45.66   -0.69
MODS 117.3  38   ePn    9:59:45.50    0.00
                 eSn   10:00:00.60   -1.04
KRUC 168.6   2    Pn    9:59:52.66    0.77
                  Sn   10:00:12.56   -0.45
```

523.

```
 2019-06-14  time: 10:34:46.47 UTC  ML= 1.5
   lat: 47.877N  lon: 16.323E  h= 10.0 km
                 erh= 2.6km    erz= 2.7km
   nr= 16        gap= 89       rms=0.75
   Locality: Austria
   Comments:

sta   dist azm  phase  hr mn  sec     res
RONA  19.9 186    Pg   10:34:50.80    0.35
                  Sg      34:53.47   -0.07
SOP   27.9 141    Pg   10:34:52.24    0.47
                  Sg      34:55.84   -0.05
CONA  34.9 279    Pg   10:34:53.30    0.34
                  Sg      34:58.38    0.36
MODS  90.0  52   ePg   10:35:02.60   -0.04
                 eSg      35:13.90   -1.35
ARSA  92.1 221    Pg   10:35:02.15   -0.86
                  Sg      35:13.51   -2.40
KRUC 131.8   2    Pn   10:35:08.67    0.00
                  Sn      35:24.21   -1.76
MOA  153.9 269    Pn   10:35:12.48    1.06
                  Sn      35:32.21    1.33
VRAC 160.4   7    Pn   10:35:12.72    0.49
                  Sn      35:31.42   -0.89
```

524.

```
 2019-06-14  time: 12:34:11.15 UTC  ML= 2.3
   lat: 47.760N  lon: 16.136E  h=  8.9 km
                 erh= 1.7km    erz= 1.3km
   nr= 42        gap= 57       rms=0.85
   Locality: Austria
   Comments:

sta   dist azm  phase  hr mn  sec     res
RONA  13.7 119    Pg   12:34:14.38    0.31
                  Sg      34:16.52    0.18
CONA  27.8 312    Pg   12:34:16.05   -0.31
                  Sg      34:19.74   -0.69
SOP   32.8 105    Pg   12:34:17.44    0.23
                  Sg      34:21.66   -0.28
ARSA  73.1 219    Pg   12:34:23.30   -1.00
                  Sg      34:31.77   -2.78
EGYH  97.6 113    Pg   12:34:29.07    0.41
MODS 109.0  51   ePn   12:34:29.20   -1.45
                 eSn      34:43.90   -1.95
MPLH 124.4 122    Pn   12:34:31.84   -0.73
SMOL 127.6  49   ePn   12:34:34.00    1.04
                 eSn      34:50.20    0.23
MOA  140.5 274    Pn   12:34:35.15    0.58
                  Sn      34:52.09   -0.74
```

```
KRUC 146.1   8    Pn   12:34:35.42    0.16
                  Sn      34:52.93   -1.14
SOKA 146.5 215    Pn   12:34:34.79   -0.52
                  Sn      34:52.35   -1.81
PERS 146.9 212    Sn   12:34:53.25   -1.01
GROS 152.2 198    Pn   12:34:37.42    1.39
PKST 153.4 111    Pn   12:34:36.26    0.08
                  Sn      34:55.87    0.16
SRO  163.2  88   ePn   12:34:38.50    1.10
PKSG 174.5 104    Pn   12:34:38.89    0.09
VRAC 175.5  11    Pn   12:34:39.16    0.23
                  Sn      34:59.73   -0.87
TREC 177.3 344   eSn   12:35:01.10    0.09
OBKA 184.0 221    Pn   12:34:41.39    1.40
BIOA 187.6 268    Pn   12:34:42.28    1.84
                  Sn      35:04.57    1.29
VYHS 216.9  68    Pn   12:34:44.06   -0.04
PKB1 228.4 118    Pn   12:34:45.64    0.12
ZVC  235.4 322   eSn   12:35:16.20    2.29
KOVH 238.5 141    Pn   12:34:47.15    0.36
MORC 247.0  25    Pn   12:34:49.08    1.23
                  Sn      35:15.39   -1.08
MORH 256.6 132    Pn   12:34:48.90   -0.15
PKSM 256.8 132    Pn   12:34:48.96   -0.11
KRLC 261.8  10    Pn   12:34:50.73    1.03
                  Sn      35:19.77    0.01
```

525.

```
 2019-06-17  time:  7:52:49.80 UTC  ML= 1.8
   lat: 45.966N  lon: 16.070E  h=  6.2 km
                 erh= 2.5km    erz= 3.5km
   nr= 12        gap=108       rms=0.56
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PTJ   11.3 230    PgD   7:52:51.78   -0.33
                  Sg      52:53.38   -0.53
ZAG   16.3 201    Pg    7:52:52.77   -0.15
                  Sg      52:55.54    0.20
GOLS  34.9 278   ePg    7:52:57.40    1.27
GCIS  36.0 252   ePg    7:52:56.69    0.36
                 eSg      53:02.06    0.64
CRES  50.0 252    Pg    7:52:59.18    0.37
                  Sg      53:05.34   -0.49
KOGS  55.4  15    Sg    7:53:07.53    0.00
PERS 104.6 315    Sg    7:53:21.92   -1.19
PKSV 169.5  93    Sn    7:53:38.02   -0.51
```

526.

```
 2019-06-17  time:  7:59:31.63 UTC  ML= 1.2
   lat: 47.322N  lon: 17.621E  h=  0.0 km
                 erh= 1.3km    erz= 4.3km
   nr=  8        gap=149       rms=0.37
   Locality: Ugod
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  17.9 200    Pg    7:59:34.81   -0.02
                  Sg      59:37.49    0.16
EGYH  24.3 296    Pg    7:59:35.84   -0.12
                  Sg      59:39.34    0.00
PKST  32.0 103    Pg    7:59:37.90    0.55
                  Sg      59:41.74   -0.08
CSKK  48.6  85    Sg    7:59:46.55   -0.52
KOVH 141.9 165    Sn    7:60:14.22   -1.42
```

527.

```
 2019-06-17  time:  9:53:05.14 UTC  ML= 1.4
   lat: 48.545N  lon: 20.780E  h=  0.0 km
                 erh= 5.0km    erz= 4.5km
   nr=  7        gap=155       rms=0.58
   Locality: Komjáti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.8 252    Pg    9:53:09.60    0.39
                  Sg      53:12.60    0.22
PSZ   95.8 223    Sg    9:53:34.71   -0.88
STHS 102.7  19   ePg    9:53:23.50    0.02
KOLS 118.0  69    Sg    9:53:42.24   -0.42
VYHS 143.7 268    Pn    9:53:30.68    0.59
                  Sn      53:48.17   -1.38
```

528.

```
 2019-06-17  time: 21:05:50.75 UTC  ML= 1.0
   lat: 47.386N  lon: 18.184E  h=  9.3 km
                 erh= 0.7km    erz= 0.6km
   nr= 18        gap= 86       rms=0.25
   Locality: Mór
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   6.3 114    PgU  21:05:52.74   -0.01
                  Sg      05:54.39    0.08
PKSG  15.6  88    Pg   21:05:54.16    0.17
                  Sg      05:56.26   -0.26
PKST  18.1 219    Pg   21:05:54.20   -0.18
                  Sg      05:57.15   -0.06
A268  20.3 284    Pg   21:05:54.78    0.05
                  Sg      05:57.29   -0.55
A269  31.8  28    Pg   21:05:56.85    0.19
                  Sg      06:00.78   -0.49
SRO   48.5  12    Sg   21:06:06.93    0.49
A338  71.1  10    Pg   21:06:03.78    0.23
                  Sg      06:13.14   -0.40
A261  92.2 238    Pg   21:06:07.64    0.35
PKB5  97.4 154    Sg   21:06:21.63   -0.23
MORH 134.7 165    Sn   21:06:30.87   -0.20
PKSM 135.1 165    Sn   21:06:30.90   -0.25
KOVH 144.4 183    Sn   21:06:33.30    0.09
```

529.

```
 2019-06-18  time:  6:32:39.01 UTC  ML= 1.1
   lat: 47.993N  lon: 19.994E  h=  0.0 km
                 erh= 1.6km    erz= 407km
   nr=  5        gap=188       rms=0.19
   Locality: Mátraballa
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   11.2 222    Pg    6:32:40.77   -0.24
                  Sg      32:42.87    0.31
KECS  65.6  34    Sg    6:32:59.92    0.06
A336  78.8 290    Sg    6:33:04.14    0.09
VYHS 102.5 303    Sg    6:33:11.61    0.02
```

530.

```
 2019-06-18  time:  7:09:23.00 UTC  ML= 1.7
   lat: 46.864N  lon: 17.257E  h=  0.0 km
                 erh= 4.9km    erz= ***km
   nr=  9        gap=222       rms=0.78
   Locality: Zalaszántó
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  40.2  32    Pg    7:09:29.76   -0.42
```

```
                  Sg      09:35.39   -0.38
TIH   48.6  85    Sg    7:09:40.26    1.80
EGYH  61.7   5    Sg    7:09:43.83    1.22
PKST  73.6  53    Pg    7:09:35.66   -0.47
                  Sg      09:45.51   -0.87
PKSG 104.1  56    Sg    7:09:55.77   -0.31
KOVH 107.9 143    Pg    7:09:43.01    0.75
                  Sg      09:56.69   -0.59
```

531.

```
 2019-06-18  time:  8:50:51.31 UTC  ML= 1.5
   lat: 48.620N  lon: 20.704E  h=  0.0 km
                 erh= 3.9km    erz= 4.3km
   nr= 10        gap=144       rms=0.82
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.2 227    Pg    8:50:55.67    0.40
                  Sg      50:57.81   -0.55
STHS  97.0  24   ePg    8:51:09.20    0.57
                 eSg      51:20.10   -2.04
PSZ   98.5 218    Pg    8:51:09.70    0.80
                  Sg      51:21.64   -0.98
LANS 108.2 303   ePg    8:51:11.20    0.58
KOLS 120.5  73   eSg    8:51:29.10   -0.51
A336 133.3 251    Sn    8:51:31.42   -2.00
VYHS 138.6 264    Sn    8:51:34.26   -0.33
```

532.

```
 2019-06-18  time:  8:59:54.37 UTC  ML= 1.6
   lat: 47.946N  lon: 19.892E  h=  0.0 km
                 erh= 2.5km    erz= 4.3km
   nr= 11        gap=141       rms=0.69
   Locality: Dorogháza
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ    3.1 177    Pg    8:59:54.74   -0.19
                  Sg      59:56.19    0.83
A336  73.8 296    Pg    8:60:08.47    0.92
                  Sg      60:18.60    0.76
KECS  74.2  36    Pg    8:60:07.61   -0.02
VYHS  99.4 308    Pg    8:60:11.79   -0.33
                  Sg      60:24.66   -1.30
PKSG 128.5 241    Sg    8:60:34.25   -0.98
PKB2 149.7 199    Sn    8:60:39.25   -0.87
STHS 191.4  31   ePn    8:60:25.40    0.12
                 eSn      60:51.50    2.12
```

533.

```
 2019-06-18  time: 11:20:42.98 UTC  ML= 1.6
   lat: 46.835N  lon: 17.451E  h=  0.0 km
                 erh= 5.1km    erz= 936km
   nr=  9        gap=221       rms=0.70
   Locality: Kisapáti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
TIH   34.5  78    Sg   11:20:54.90    0.96
MPLH  37.8  10    Sg   11:20:53.48   -1.52
PKST  64.7  43    Pg   11:20:55.23    0.70
KOVH  96.9 149    Pg   11:21:00.51    0.24
                  Sg      21:14.56    0.80
MORH 114.6 127    Pg   11:21:03.34   -0.10
                  Sg      21:18.52   -0.88
PKSM 114.7 127    Pg   11:21:03.14   -0.32
                  Sg      21:18.49   -0.94
```

534.

```
 2019-06-19  time:  8:39:51.96 UTC  ML= 1.8
   lat: 48.341N  lon: 19.003E  h=  0.0 km
                 erh= 1.9km    erz= 5.4km
   nr= 16        gap= 61       rms=0.76
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A336  12.0 181    PgU   8:39:54.40    0.31
                  Sg      39:56.05    0.29
VYHS  21.0 324    PgU   8:39:56.22    0.51
                  Sg      39:59.51    0.87
A338  60.4 233    Sg    8:40:10.97   -0.19
PENC  64.6 161    Sg    8:40:12.41   -0.09
PSZ   81.3 125    Pg    8:40:07.47    0.99
LANS  96.3  21   eSg    8:40:21.50   -1.07
KECS 110.9  82    Pg    8:40:11.77    0.01
                  Sg      40:25.94   -1.27
PKSG 115.0 203    Pg    8:40:13.11    0.61
                  Sg      40:27.35   -1.17
CSKK 122.1 207    Sg    8:40:29.41   -1.35
MODS 127.9 272   ePg    8:40:13.90   -0.90
                 eSg      40:30.40   -2.22
MPLH 170.2 220    Sn    8:40:42.51    0.25
```

535.

```
 2019-06-19  time:  9:34:53.50 UTC  ML= 1.3
   lat: 48.407N  lon: 18.465E  h=  0.0 km
                 erh= 1.2km    erz= 320km
   nr=  8        gap=163       rms=0.23
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  29.1  70    Pg    9:34:58.83    0.12
                  Sg      35:02.50   -0.27
A336  44.1 116    Pg    9:35:01.59    0.22
                  Sg      35:06.42   -1.09
A338  44.3 191    Pg    9:35:01.41    0.00
                  Sg      35:07.62    0.03
MODS  88.0 268   ePg    9:35:09.20   -0.02
                 eSg      35:21.20   -0.28
```

536.

```
 2019-06-19  time:  9:44:39.02 UTC  ML= 1.5
   lat: 47.330N  lon: 18.435E  h=  0.0 km
                 erh= 2.3km    erz= 4.5km
   nr=  9        gap=160       rms=0.51
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   7.7 334    PgU   9:44:40.56    0.17
                  Sg      44:40.96   -0.49
CSKK  13.7 286    Pg    9:44:41.95    0.48
                  Sg      44:43.89    0.51
PKST  31.4 255    Pg    9:44:44.76    0.14
                  Sg      44:47.99   -1.00
MORH 124.9 173    Sg    9:45:18.91    0.19
PKSM 125.3 173    Sg    9:45:18.64   -0.21
VYHS 132.8  13    Sn    9:45:19.70   -1.32
```

537.

```
 2019-06-19  time: 10:04:02.97 UTC  ML= 1.7
   lat: 47.309N  lon: 18.462E  h=  0.0 km
                 erh= 3.2km    erz= 5.9km
   nr= 10        gap=161       rms=0.61
   Locality: Pátka
   Comments: probably explosion
```

```
sta   dist azm  phase  hr mn  sec     res
PKSG  10.7 330    PgU  10:04:05.09    0.21
                  Sg      04:05.57   -0.80
CSKK  16.4 292    Pg   10:04:06.52    0.62
                  Sg      04:08.30    0.12
PKST  32.8 260    Pg   10:04:08.81   -0.02
                  Sg      04:12.18   -1.23
MORH 122.3 173    Sg   10:04:41.80   -0.04
PKSM 122.7 174    Sg   10:04:41.90   -0.07
VYHS 134.7  12    Pn   10:04:27.36    0.56
                  Sn      04:43.34   -2.05
```

538.

```
 2019-06-20  time:  6:49:38.46 UTC  ML= 1.2
   lat: 47.572N  lon: 18.404E  h=  0.0 km
                 erh= 0.9km    erz= 199km
   nr= 10        gap=159       rms=0.16
   Locality: Tatabánya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  20.1 183    Pg    6:49:41.86   -0.18
                  Sg      49:44.78   -0.05
CSKK  25.6 205    Pg    6:49:42.89   -0.14
                  Sg      49:46.74    0.14
PKST  44.6 219    Pg    6:49:46.39   -0.03
                  Sg      49:52.91    0.28
PENC  70.2  70    Pg    6:49:51.04    0.04
                  Sg      50:00.94    0.15
VYHS 107.5  17    Pg    6:49:57.73    0.08
                  Sg      50:10.39   -2.23*
```

539.

```
 2019-06-20  time:  6:54:59.58 UTC  ML= 2.0
   lat: 47.326N  lon: 18.459E  h=  0.0 km
                 erh= 1.8km    erz= 2.8km
   nr= 11        gap=115       rms=0.51
   Locality: Pátka
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.9 324    Pg    6:55:01.53    0.36
                  Sg      55:01.82   -0.60
CSKK  15.6 285    PgU   6:55:02.73    0.37
                  Sg      55:03.74   -0.79
PKST  33.0 257    Pg    6:55:06.24    0.76
                  Sg      55:09.67   -0.41
MORH 124.3 173    Sg    6:55:38.68   -0.40
PKSM 124.7 174    Sg    6:55:38.89   -0.33
PSZ  126.4  59    Sg    6:55:39.71   -0.03
VYHS 132.8  12    Sn    6:55:40.81   -0.77
MODS 146.2 323   eSn    6:55:44.70    0.15
```

540.

```
 2019-06-20  time:  8:40:19.08 UTC  ML= 2.0
   lat: 47.267N  lon: 18.435E  h= 12.6 km
                 erh= 1.6km    erz= 1.6km
   nr= 27        gap= 75       rms=0.71
   Locality: Pátka
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSG  14.3 346    PgU   8:40:22.62    0.13
                  Sg      40:24.88   -0.27
CSKK  17.0 309    PgU   8:40:23.12    0.26
PKST  30.3 268    PgU   8:40:25.09    0.14
                  Sg      40:29.27   -0.26
BUD   50.6  62    Sg    8:40:34.88   -0.77
TIH   57.9 225    Pg    8:40:29.75    0.08
                  Sg      40:36.67   -1.26
PKB1  60.1 153    Pg    8:40:30.02   -0.03
                  Sg      40:37.83   -0.77
MPLH  68.7 261    Pg    8:40:32.19    0.64
                  Sg      40:40.43   -0.85
PKS9  76.5 189    Pg    8:40:34.29    1.36
PKB5  78.1 163    Pg    8:40:34.29    1.08
                  Sg      40:42.82   -1.41
A339  85.8 317    Pg    8:40:33.82   -0.74
PENC  86.3  48    Sg    8:40:46.11   -0.71
PKB2  90.0 137    Pg    8:40:35.92    0.60
                  Sg      40:47.72   -0.26
PKS2 104.6 145    Pn    8:40:37.94    0.40
PKB3 110.2 148    Sn    8:40:52.59   -0.59
MORH 117.9 172    Pn    8:40:39.72    0.52
                  Sn      40:52.84   -2.06
PKSM 118.3 172    Pn    8:40:39.14   -0.11
                  Sn      40:52.80   -2.19
PSZ  131.5  57    Sn    8:40:58.33    0.41
KOVH 133.5 191    Sn    8:40:58.48    0.13
```

541.

```
 2019-06-21  time:  8:49:12.14 UTC  ML= 1.1
   lat: 46.181N  lon: 18.285E  h=  0.0 km
                 erh= 0.8km    erz= 131km
   nr=  7        gap=208       rms=0.09
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.6 234    Pg    8:49:15.19   -0.10
                  Sg      49:17.96    0.21
PKSM  27.7  83    Pg    8:49:17.11    0.03
                  Sg      49:20.98    0.04
MORH  28.0  82    Pg    8:49:17.14    0.01
                  Sg      49:20.98   -0.05
PKSV  32.6 185    Sg    8:49:22.42   -0.08
```

542.

```
 2019-06-21  time:  9:13:45.77 UTC  ML= 1.2
   lat: 47.214N  lon: 18.289E  h=  0.0 km
                 erh= 4.0km    erz= 610km
   nr=  8        gap=244       rms=0.43
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.7 353    Pg    9:13:49.27    0.52
                  Sg      13:50.89   -0.19
PKST  19.9 284    Pg    9:13:48.79   -0.54
                  Sg      13:51.60   -0.51
PKSG  21.2  21    Pg    9:13:49.26   -0.30
                  Sg      13:52.68    0.18
MPLH  57.0 265    Pg    9:13:56.19    0.23
                  Sg      14:04.68    0.78
```

543.

```
 2019-06-22  time: 20:57:29.68 UTC  ML= 2.3
   lat: 47.674N  lon: 20.289E  h=  8.4 km
                 erh= 2.4km    erz= 1.9km
   nr= 55        gap= 44       rms=1.38
   Locality: Erdőtelek
   Comments:

sta   dist azm  phase  hr mn  sec     res
HU23   5.2 214    PgD  20:57:31.81    0.36
PSZ   40.1 312    Pg   20:57:37.57    0.57
                  Sg      57:43.17    0.46
HU02  52.8  19    Pg   20:57:39.06   -0.16
                  Sg      57:46.64   -0.03
HU03  57.6 296    PgU  20:57:40.65    0.57
PENC  76.7 280    Pg   20:57:43.68    0.23
                  Sg      57:53.58   -0.62
KECS  91.1   9    Pg   20:57:45.76   -0.25
```

```
                  Sg      57:58.28   -0.48
PKSN  92.1 200    Pg   20:57:45.74   -0.46
JOS   93.2  12    Pg   20:57:45.71   -0.68
                  Sg      57:58.10   -1.32
A270  97.2 281    Sg   20:57:59.20   -1.47
BUD   97.6 257    Sg   20:57:59.23   -1.57
PKS7 110.1 231    Pn   20:57:48.70   -0.67
                  Sn      58:02.43   -2.30
HU04 113.8 213    PnU  20:57:48.35   -1.48
A336 114.7 303    PnD  20:57:50.09    0.16
                  Sn      58:04.21   -1.52
HU07 126.3  74    Sn   20:58:07.41   -0.91
PKS6 131.5 205    Pn   20:57:52.31    0.28
                  Sn      58:06.60   -2.87
PKB2 136.6 216    Pn   20:57:52.73    0.06
VYHS 141.5 310    Pn   20:57:53.36    0.08
                  Sn      58:10.94   -0.75
PKSG 146.4 258    Sn   20:58:11.51   -1.26
SRO  149.0 276   ePn   20:57:54.10   -0.11
                 eSn      58:14.20    0.85
A338 149.9 285    Sn   20:58:12.03   -1.51
PKB1 150.5 229    Pn   20:57:54.84    0.44
PKS2 154.8 212    Sn   20:58:12.45   -2.19
CSKK 156.7 257    Sn   20:58:13.95   -1.11
PKB3 162.0 211    Sn   20:58:14.26   -1.98
PKB5 168.2 224    Pn   20:57:58.39    1.78
                  Sn      58:18.95    1.33
LANS 175.0 340   ePn   20:58:00.20    2.74
                 eSn      58:21.70    2.57
TRPA 175.7  73    Pn   20:57:58.39    0.85
                  Sn      58:19.29    0.02
NIE  194.0   1    Sn   20:58:24.80    1.47
PKS9 194.7 232    Pn   20:58:03.00    3.10
                  Sn      58:27.01    3.53
KOLS 203.1  46    Sn   20:58:24.52   -0.83
MORH 204.9 218    Pn   20:57:59.18   -2.00
                  Sn      58:29.64    3.88
PKSM 205.4 218    Pn   20:58:04.24    3.00
                  Sn      58:30.07    4.20
STHS 206.1  20   ePn   20:58:02.80    1.46
                 eSn      58:27.20    1.17
DRGR 208.0 118    Sn   20:58:25.87   -0.57
MPLH 215.0 255    Pn   20:58:06.54    4.11
KOVH 242.8 223    Pn   20:58:10.67    4.76
                  Sn      58:40.89    6.72*
BZS  250.3 156    Pn   20:58:05.68   -1.16
PKSV 252.2 218    Pn   20:58:12.59    5.51
                  Sn      58:43.39    7.13*
KRUC 327.2 298    Pn   20:58:16.03   -0.40*
VRAC 328.1 304    Pn   20:58:16.59    0.05*
CONA 332.9 275    Pn   20:58:17.22    0.08*
KRLC 370.8 316    Pn   20:58:22.53    0.66*

544.
```

```
 2019-06-23  time: 12:04:17.65 UTC  ML= 1.8
   lat: 45.961N  lon: 17.218E  h= 29.5 km
                 erh= 2.0km    erz= 1.9km
   nr= 18        gap=168       rms=0.45
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
A264  22.7  14    Sg   12:04:28.67   -0.25
BEHE  66.1 329    Pn   12:04:29.63    0.09
                  Sn      04:38.92    0.11
KOVH  69.7  78    Pn   12:04:29.96   -0.03
                  Sn      04:40.63    1.02
A263  75.9   6    Pn   12:04:30.61   -0.15
                  Sn      04:40.69   -0.30
PKSV  80.6  96    Pn   12:04:30.84   -0.51
                  Sn      04:40.99   -1.04
KOGS  92.3 306    Pn   12:04:32.90    0.10
                  Sn      04:44.09   -0.52
PTJ   98.0 266    Pn   12:04:33.50   -0.01
                  Sn      04:45.14   -0.75
PKSM 113.5  76    Pn   12:04:35.74    0.28
MORH 113.9  76    Pn   12:04:35.78    0.29
PKB5 136.5  59    Pn   12:04:38.30   -0.02
CRES 137.5 264    Pn   12:04:39.73    1.28
                  Sn      04:55.28    0.62

545.
```

```
 2019-06-23  time: 14:09:44.25 UTC  ML= 2.5
   lat: 47.680N  lon: 20.259E  h=  5.6 km
                 erh= 1.8km    erz= 1.4km
   nr= 53        gap=140       rms=0.94
   Locality: Tarnabod
   Comments:

sta   dist azm  phase  hr mn  sec     res
HU23   5.0 187    PgD  14:09:46.15    0.55
PSZ   38.0 314    PgU  14:09:51.91    0.79
                  Sg      09:57.53    1.06
HU02  53.0  22    PgU  14:09:53.45   -0.32
                  Sg      10:00.82   -0.38
PENC  74.3 279    Pg   14:09:58.14    0.57
                  Sg      10:07.76   -0.19
KECS  90.9  11    Sg   14:10:12.57   -0.62
PKSN  92.0 199    Pg   14:10:00.18   -0.53
                  Sg      10:12.19   -1.35
JOS   93.1  13    PgD  14:10:00.04   -0.86
                  Sg      10:12.38   -1.51
A270  94.8 281    Pg   14:10:01.93    0.72
BUD   95.5 257    Pg   14:10:01.75    0.42
                  Sg      10:13.28   -1.37
PKS7 108.8 230    Pg   14:10:03.19   -0.52
                  Sg      10:17.01   -1.87
A336 112.4 303    PgD  14:10:04.45    0.10
                  Sg      10:18.34   -1.69
PKS6 131.2 204    Pn   14:10:06.74   -0.19
                  Sn      10:21.01   -3.61
PKB2 135.8 215    Pn   14:10:07.18   -0.33
                  Sn      10:24.25   -1.41
VYHS 139.4 310    Pn   14:10:07.65   -0.30
                  Sn      10:25.19   -1.25
PKSG 144.3 257    Pn   14:10:08.95    0.38
                  Sn      10:25.89   -1.64
SRO  146.7 276    Pn   14:10:09.26    0.40
                  Sn      10:27.54   -0.52
PKB1 149.2 228    Pn   14:10:09.57    0.39
                  Sn      10:28.15   -0.47
PKS2 154.1 211    Pn   14:10:10.53    0.73
                  Sn      10:26.75   -2.97
CSKK 154.6 257    Pn   14:10:11.25    1.40
                  Sn      10:28.77   -1.05
PKB3 161.4 210    Pn   14:10:11.00    0.30
                  Sn      10:30.20   -1.13
PKB5 167.1 224    Pn   14:10:12.29    0.88
                  Sn      10:33.38    0.79
LANS 173.7 340   ePn   14:10:14.90    2.67
                 eSn      10:35.50    1.45
PKST 174.1 254    Pn   14:10:13.30    1.01
PKS9 193.2 231    Pn   14:10:16.44    1.77
                  Sn      10:40.57    2.17
NIE  193.4   1    Sn   14:10:38.86    0.44
KOLS 204.3  47   ePn   14:10:15.50   -0.55
                 eSn      10:38.30   -2.55
PKSM 204.5 217    Pn   14:10:16.91    0.84
STHS 206.3  21   ePn   14:10:16.80    0.50
EGYH 222.3 262    Sn   14:10:45.40    0.56
KOVH 241.7 223    Pn   14:10:25.03    4.32
RONA 297.5 270    Pn   14:10:26.94   -0.73
                  Sn      10:58.60   -2.94*
CONA 330.6 275    Pn   14:10:31.33   -0.46*
                  Sn      11:06.85   -2.02*
ARSA 360.3 262    Pn   14:10:35.74    0.25*
                  Sn      11:12.65   -2.81*
KRLC 368.8 316   ePn   14:10:36.70    0.14*
```

```
MOA  449.7 272    Pn   14:10:45.57   -1.07*
                  Sn      11:38.89    3.58*
```

546.

```
 2019-06-24  time:  2:37:44.11 UTC  ML= 1.6
   lat: 47.862N  lon: 17.281E  h=  8.7 km
                 erh= 1.5km    erz= 2.2km
   nr= 20        gap= 68       rms=0.57
   Locality: Mosonmagyaróvár
   Comments:

sta   dist azm  phase  hr mn  sec     res
A339  28.3  97    Pg    2:37:49.85    0.46
                  Sg      37:54.43    0.92
EGYH  49.6 176    Pg    2:37:53.41    0.31
                  Sg      37:59.62   -0.49
MODS  56.9 360   ePg    2:37:55.10    0.71
                 eSg      38:05.60    3.19*
SOP   57.7 250    Pg    2:37:54.22   -0.31
                  Sg      38:01.96   -0.70
RONA  76.0 256    Pg    2:37:58.05    0.28
                  Sg      38:07.85   -0.57
SRO   77.4  94    Pg    2:37:57.71   -0.31
                  Sg      38:08.25   -0.63
MPLH  79.3 166    Pg    2:37:58.73    0.37
                  Sg      38:09.16   -0.31
A338  81.8  78    Pg    2:37:58.45   -0.35
                  Sg      38:08.73   -1.53
CONA 106.4 274    Pg    2:38:03.73    0.56
VYHS 135.3  59   ePn    2:38:07.30    0.40
                 eSn      38:22.30   -2.39*
KRUC 148.7 334    Sn    2:38:26.70   -0.95
ARSA 148.8 243    Sn    2:38:28.21    0.54
```

547.

```
 2019-06-24  time:  3:08:53.26 UTC  ML= 2.2
   lat: 47.823N  lon: 17.311E  h= 12.9 km
                 erh= 1.5km    erz= 1.4km
   nr= 32        gap= 58       rms=0.78
   Locality: Máriakálnok
   Comments:

sta   dist azm  phase  hr mn  sec     res
A339  25.8  88    Pg    3:08:59.41    0.99
                  Sg      09:03.23    0.79
EGYH  45.1 178    Sg    3:09:08.65    0.47
SOP   58.5 255    Pg    3:09:03.98    0.01
                  Sg      09:11.23   -1.09
A337  58.9  37    Pg    3:09:04.67    0.63
                  Sg      09:11.38   -1.06
MODS  61.3 358   ePg    3:09:04.00   -0.45
                 eSg      09:11.30   -1.88
MPLH  74.6 167    Pg    3:09:07.08    0.30
                  Sg      09:16.57   -0.75
SRO   75.1  91    Pg    3:09:06.75   -0.11
                  Sg      09:16.47   -1.00
SMOL  77.3   6   ePg    3:09:08.50    1.23
                 eSg      09:18.80    0.61
A338  80.7  75    Pg    3:09:07.96    0.10
                  Sg      09:17.67   -1.58
PKST  83.0 139    Pg    3:09:07.99   -0.28
CSKK  87.8 126    Sg    3:09:19.64   -1.83
PKSG  94.3 121    P*    3:09:10.07   -0.06
CONA 109.1 276    Pn    3:09:12.66    0.42
A336 133.9  70    Pn    3:09:16.03    0.69
                  Sn      09:31.94   -0.62
VYHS 135.8  57    Sn    3:09:31.20   -1.78
ARSA 148.9 245    Sn    3:09:36.67    0.79
KRUC 153.6 334    Pn    3:09:18.20    0.41
                  Sn      09:35.66   -1.26
PKS9 155.7 152    Sn    3:09:36.74   -0.66
PKB1 160.8 136    Pn    3:09:19.70    1.00
KOGS 172.7 208    Sn    3:09:40.08   -1.09
VRAC 173.5 342    Pn    3:09:20.89    0.62
                  Sn      09:40.73   -0.61
```

548.

```
 2019-06-24  time:  8:29:46.21 UTC  ML= 1.2
   lat: 46.132N  lon: 18.059E  h=  0.0 km
                 erh= 3.1km    erz= 423km
   nr=  8        gap=287       rms=0.33
   Locality: Hetvehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   5.8 147    PgU   8:29:47.20   -0.05
                  Sg      29:48.57    0.52
PKSV  30.9 151    Pg    8:29:51.66   -0.08
                  Sg      29:55.39   -0.65
PKSM  45.8  79    Pg    8:29:54.64    0.25
                  Sg      30:00.61   -0.16
MORH  46.1  78    Pg    8:29:54.71    0.26
                  Sg      30:00.23   -0.64
```

549.

```
 2019-06-24  time:  8:38:40.10 UTC  ML= 1.5
   lat: 48.613N  lon: 20.741E  h=  0.0 km
                 erh= 2.5km    erz= 2.6km
   nr=  9        gap=147       rms=0.48
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.8 232    Pg    8:38:44.61    0.27
                  Sg      38:46.85   -0.80
PSZ   99.6 219    Pg    8:38:58.09    0.20
LANS 110.9 303    Pg    8:39:00.25    0.36
                  Sg      39:14.80   -0.53
KOLS 118.1  72    Sg    8:39:17.23   -0.41
A336 135.7 252    Sn    8:39:21.96   -0.77
VYHS 141.3 265    Pn    8:39:05.37    0.63
                  Sn      39:23.44   -0.53
```

550.

```
 2019-06-24  time:  8:58:03.05 UTC  ML= 1.1
   lat: 46.161N  lon: 18.314E  h=  0.0 km
                 erh= 2.4km    erz= 472km
   nr=  8        gap=192       rms=0.37
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  18.4 244    PgU   8:58:06.12   -0.22
                  Sg      58:08.35   -0.56
PKSM  25.9  77    Pg    8:58:07.87    0.20
                  Sg      58:10.89   -0.39
MORH  26.2  76    Pg    8:58:08.08    0.35
                  Sg      58:10.61   -0.77
PKSV  30.6 189    Pg    8:58:08.83    0.31
                  Sg      58:13.05    0.26
```

551.

```
 2019-06-24  time:  9:16:26.32 UTC  ML= 0.8
   lat: 47.238N  lon: 18.239E  h=  0.0 km
                 erh= 2.7km    erz= 335km
   nr=  6        gap=245       rms=0.20
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  14.1   7    Pg    9:16:29.01    0.18
                  Sg      16:31.04    0.26
PKST  15.7 279    Pg    9:16:29.19    0.08
```

```
                 Sg      16:30.83   -0.46
PKSG  20.6  34   Pg    9:16:29.87   -0.13
                 Sg      16:32.72   -0.16
```

552.

```
 2019-06-24  time: 10:30:12.35 UTC  ML= 1.3
   lat: 47.820N  lon: 19.082E  h=  0.0 km
                 erh= 2.5km    erz= 310km
   nr=  7        gap=244       rms=0.20
   Locality: Verőce
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  15.3 103   Pg   10:30:15.27    0.18
                 Sg      30:16.39   -0.83
A336  46.3 352   Pg   10:30:20.62    0.00
                 Sg      30:27.30    0.23
PSZ   61.8  80   Pg   10:30:23.46    0.08
                 Sg      30:31.88   -0.10
VYHS  77.1 346   Pg   10:30:25.92   -0.20
```

553.

```
 2019-06-25  time:  7:17:52.99 UTC  ML= 1.5
   lat: 47.295N  lon: 17.651E  h=  0.0 km
                 erh= 1.3km    erz= 2.7km
   nr= 10        gap=140       rms=0.35
   Locality: Homokbödöge
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  16.2 211   Pg    7:17:55.93    0.04
                 Sg      17:58.06   -0.09
EGYH  27.7 299   Pg    7:17:58.28    0.34
                 Sg      18:01.45   -0.35
PKST  29.3  98   Pg    7:17:58.52    0.31
                 Sg      18:02.98    0.69
CSKK  46.7  81   Sg    7:18:07.21   -0.62
PKSG  56.9  79   Pg    7:18:02.91   -0.24
                 Sg      18:11.06   -0.02
MORH 141.9 148   Sn    7:18:36.37   -0.64
```

554.

```
 2019-06-25  time:  7:32:56.48 UTC  ML= 1.1
   lat: 47.863N  lon: 19.149E  h=  0.0 km
                 erh= 2.7km    erz= 698km
   nr=  8        gap=157       rms=0.50
   Locality: Nőtincs
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  12.8 129   Pg    7:32:58.68   -0.08
                 Sg      33:00.01   -0.54
A336  42.7 345   Sg    7:33:09.45   -0.58
PSZ   56.1  84   Pg    7:33:06.82    0.32
                 Sg      33:14.46    0.15
A338  61.8 286   Sg    7:33:15.86   -0.27
VYHS  73.9 342   Pg    7:33:10.48    0.80
                 Sg      33:19.18   -0.79
```

555.

```
 2019-06-25  time:  8:28:51.96 UTC  ML= 2.1
   lat: 47.906N  lon: 19.414E  h=  0.0 km
                 erh= 2.1km    erz= 5.0km
   nr= 10        gap=130       rms=0.60
   Locality: Becske
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  16.2 218   Pg    8:28:54.71   -0.15
                 Sg      28:56.88   -0.24
PSZ   35.9  88   Pg    8:28:58.22   -0.16
                 Sg      29:03.49    0.10
A336  47.8 320   Pg    8:29:01.57    1.08
                 Sg      29:06.47   -0.67
VYHS  78.2 327   Sg    8:29:16.34   -0.49
KECS 102.3  51   Pg    8:29:10.55    0.32
                 Sg      29:23.01   -1.47
MODS 167.3 288  eSn    8:29:42.20    0.58
```

556.

```
 2019-06-25  time: 11:41:30.24 UTC  ML= 1.5
   lat: 48.609N  lon: 20.754E  h=  0.0 km
                 erh= 2.5km    erz= 4.0km
   nr= 15        gap=125       rms=0.72
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
JOS   20.3 232   Pg   11:41:34.41    0.55
                 Sg      41:36.98    0.29
KECS  24.3 235   Pg   11:41:34.89    0.31
                 Sg      41:37.77   -0.19
HU02  56.8 197   Pg   11:41:40.04   -0.34
                 Sg      41:47.51   -0.78
STHS  96.7  22  ePg   11:41:52.00    4.50
                eSg      42:00.60   -0.36
PSZ   99.9 220   Pg   11:41:48.40    0.32
                 Sg      42:01.83   -0.16
LANS 111.9 303   Pg   11:41:50.41    0.18
                 Sg      42:04.66   -1.15
KOLS 117.3  72   Sg   11:42:06.60   -0.93
VYHS 142.2 265   Pn   11:41:55.67    0.67
                 Sn      42:13.03   -1.29
```

557.

```
 2019-06-26  time:  7:16:29.85 UTC  ML= 0.8
   lat: 47.229N  lon: 18.275E  h=  0.0 km
                 erh= 4.2km    erz= 503km
   nr=  5        gap=255       rms=0.23
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  14.9 356   Pg    7:16:32.64    0.12
                 Sg      16:34.93    0.33
PKST  18.6 280   Sg    7:16:35.52   -0.23
PKSG  20.1  26   Pg    7:16:33.46    0.03
                 Sg      16:35.76   -0.47
```

558.

```
 2019-06-26  time:  8:55:09.15 UTC  ML= 1.5
   lat: 48.340N  lon: 18.545E  h=  0.0 km
                 erh= 2.1km    erz= 3.6km
   nr= 11        gap=134       rms=0.58
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  27.5  52   Pg    8:55:14.76    0.71
                 Sg      55:18.77    0.89
A336  35.7 109   Pg    8:55:15.11   -0.41
                 Sg      55:19.85   -0.65
A338  38.9 202   Pg    8:55:16.46    0.37
                 Sg      55:21.84    0.33
PSZ  110.8 115   Pg    8:55:29.02    0.08
                 Sg      55:41.97   -2.41
LANS 112.8  37   Pg    8:55:29.19   -0.10
MORC 175.8 335   Pn    8:55:38.03   -0.07
                 Sn      55:59.42   -1.26
```

559.

```
 2019-06-26  time:  9:09:35.20 UTC  ML= 1.4
   lat: 48.606N  lon: 20.625E  h=  0.0 km
                 erh= 1.2km    erz= 0.9km
   nr=  8        gap=270       rms=0.22
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  17.1 217    Pg    9:09:38.37    0.12
                  Sg      09:40.74    0.11
PSZ   93.7 215    Pg    9:09:51.98    0.04
                  Sg      10:04.78   -0.22
LANS 104.2 306   ePg    9:09:54.00    0.18
                 eSg      10:08.60    0.27
VYHS 132.6 265    Pn    9:09:58.52   -0.25
                  Sn      10:16.08   -1.08
```

560.

```
 2019-06-26  time: 11:38:36.27 UTC  ML= 1.7
   lat: 47.322N  lon: 18.447E  h=  0.0 km
                 erh= 3.5km    erz= 724km
   nr=  6        gap=202       rms=0.43
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.9 331    PgU  11:38:37.94    0.08
                  Sg      38:38.58   -0.52
CSKK  14.9 288    Pg   11:38:39.42    0.49
                  Sg      38:41.31    0.32
PKST  32.0 257    Sg   11:38:45.73   -0.72
PKSM 124.3 173    Sg   11:39:15.46   -0.32
```

561.

```
 2019-06-27  time:  7:29:14.35 UTC  ML= 0.9
   lat: 46.156N  lon: 18.311E  h=  0.0 km
                 erh= 1.8km    erz= 304km
   nr=  6        gap=190       rms=0.19
   Locality: Vasas
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  18.0 245    Sg    7:29:19.78   -0.29
PKSM  26.2  76    Pg    7:29:19.17    0.13
                  Sg      29:22.69    0.00
MORH  26.5  75    Pg    7:29:19.17    0.08
                  Sg      29:22.39   -0.40
PKSV  30.1 189    Sg    7:29:24.10    0.19
```

562.

```
 2019-06-27  time:  7:42:07.70 UTC  ML= 1.2
   lat: 46.139N  lon: 18.044E  h=  0.0 km
                 erh= 2.2km    erz= 246km
   nr=  6        gap=290       rms=0.15
   Locality: Hetvehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   7.1 143    Pg    7:42:08.95   -0.01
                  Sg      42:10.16    0.21
PKSV  32.2 150    Sg    7:42:17.55   -0.37
PKSM  46.8  80    Pg    7:42:16.16    0.11
                  Sg      42:22.38   -0.19
MORH  47.1  80    Pg    7:42:16.13    0.02
```

563.

```
 2019-06-27  time:  8:02:43.08 UTC  ML= 1.1
   lat: 47.209N  lon: 18.277E  h=  0.0 km
                 erh= 0.8km    erz= 1.9km
   nr=  9        gap=143       rms=0.21
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  17.2 356    Pg    8:02:46.13   -0.01
                  Sg      02:48.21   -0.32
PKST  19.2 287    PgU   8:02:46.50   -0.01
                  Sg      02:49.41    0.23
PKSG  22.0  23    Pg    8:02:47.00   -0.01
                  Sg      02:50.62    0.54
MORH 114.0 166    Pg    8:03:03.30   -0.13
PKSM 114.3 166    Pg    8:03:03.65    0.16
VYHS 148.8  16    Sn    8:03:28.10   -0.53
```

564.

```
 2019-06-27  time:  9:05:05.35 UTC  ML= 1.3
   lat: 47.543N  lon: 18.499E  h=  0.0 km
                 erh= 2.0km    erz=11.0km
   nr= 12        gap=107       rms=0.60
   Locality: Szárliget
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  18.7 206    Pg    9:05:08.95    0.26
                  Sg      05:11.46    0.17
CSKK  26.9 222    Pg    9:05:09.95   -0.20
                  Sg      05:13.92    0.02
SRO   33.2 335    Sg    9:05:16.80    0.91
BUD   40.1  99    Sg    9:05:18.62    0.53
PKST  47.2 228    Pg    9:05:13.77   -0.01
                  Sg      05:20.32   -0.03
A336  85.4  26    Sg    9:05:30.87   -1.63
VYHS 108.7  13    Pg    9:05:25.18    0.41
                  Sg      05:39.05   -0.86
PKSM 148.4 176    Sn    9:05:47.99   -2.81
```

565.

```
 2019-06-27  time:  9:49:06.42 UTC  ML= 1.4
   lat: 48.609N  lon: 20.559E  h=  0.0 km
                 erh= 3.1km    erz= 384km
   nr=  6        gap=297       rms=0.23
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  15.0 201    Pg    9:49:08.76   -0.34
                  Sg      49:11.12   -0.06
PSZ   91.3 213    Pg    9:49:22.83    0.11
                  Sg      49:35.77    0.34
VYHS 127.9 264    Pg    9:49:29.44    0.18
                  Sg      49:46.87   -0.20
```

566.

```
 2019-06-27  time: 12:59:01.87 UTC  ML= 1.7
   lat: 47.104N  lon: 19.348E  h=  0.0 km
                 erh= 4.7km    erz= 719km
   nr=  7        gap=184       rms=0.48
   Locality: Tatárszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKS7  15.6 246    Pg   12:59:04.98    0.33
                  Sg      59:06.49   -0.33
PENC  76.5 356    Pg   12:59:16.36    0.83
PSZ   99.4  24    Pg   12:59:19.32   -0.31
```

```
MORH 112.5 209    Pg   12:59:22.03    0.07
PKSM 113.0 209    Pg   12:59:22.10    0.05
A336 128.2 348    Pg   12:59:23.99   -0.78
```

567.

```
 2019-06-27  time: 13:18:42.24 UTC  ML= 1.8
   lat: 47.082N  lon: 19.435E  h=  0.0 km
                 erh= 2.1km    erz= 3.3km
   nr=  9        gap=192       rms=0.42
   Locality: Tatárszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKS7  21.2 260    Pg   13:18:46.53    0.51
                  Sg      18:48.82   -0.15
PENC  79.6 352    Pg   13:18:56.95    0.50
PSZ   99.2  20    Pg   13:18:59.91   -0.05
PKS9 104.0 238    Pg   13:19:00.92    0.12
MORH 113.7 212    Pg   13:19:02.65    0.10
PKSM 114.2 212    Pg   13:19:02.37   -0.26
                  Sg      19:17.43   -1.11
A336 132.1 346    Pn   13:19:05.07   -0.67
```

568.

```
 2019-06-27  time: 13:35:38.68 UTC  ML= 1.5
   lat: 47.078N  lon: 19.416E  h=  0.0 km
                 erh= 3.4km    erz= 559km
   nr=  6        gap=191       rms=0.33
   Locality: Tatárszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKS7  19.7 260    Pg   13:35:42.55    0.35
                  Sg      35:44.37   -0.57
PENC  79.8 353    Pg   13:35:53.39    0.45
PSZ  100.1  21    Pg   13:35:56.22   -0.34
MORH 112.6 212    Pg   13:35:58.74   -0.05
PKSM 113.1 212    Pg   13:35:58.74   -0.14
```

569.

```
 2019-06-28  time: 11:01:40.21 UTC  ML= 1.8
   lat: 47.327N  lon: 18.434E  h=  0.0 km
                 erh= 1.9km    erz= 2.6km
   nr=  6        gap=160       rms=0.28
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.0 335    PgU  11:01:41.96    0.33
                  Sg      01:42.52   -0.22
CSKK  13.8 287    Sg   11:01:44.62    0.04
MORH 124.5 173    Sg   11:02:19.93    0.14
PKSM 124.9 173    Sg   11:02:19.68   -0.24
VYHS 133.2  13    Sn   11:02:21.79   -0.51
```

570.

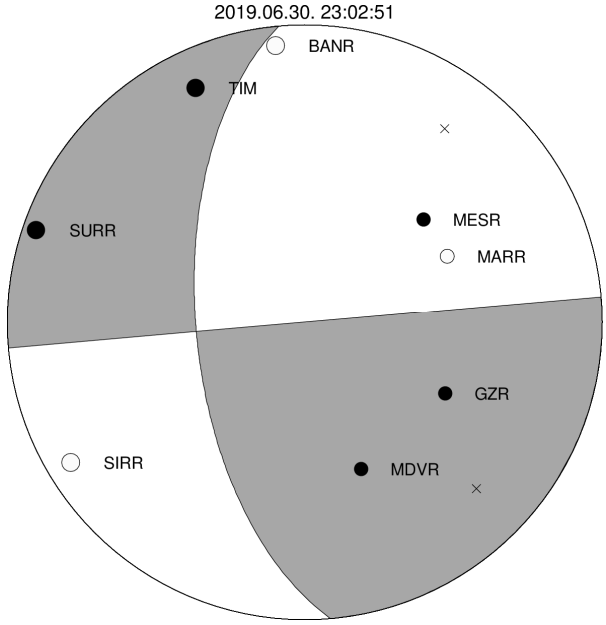
```
 2019-06-30  time: 21:13:08.16 UTC  ML= 1.0
   lat: 45.525N  lon: 17.942E  h= 16.4 km
                 erh= 6.8km    erz= 2.6km
   nr=  9        gap=179       rms=0.45
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  47.1  31    Pg   21:13:17.36    0.30
                  Sg      13:23.34   -0.67
KOVH  63.9  11    Pg   21:13:19.65   -0.28
                  Sg      13:29.64    0.53
PKSM  93.7  35    P*   21:13:24.94    0.31
                  S*      13:36.99   -0.48
MORH  94.2  35    P*   21:13:25.18    0.48
                  S*      13:37.25   -0.35
BLY  104.8 215    Sn   21:13:39.43   -0.79
```

571.

```
 2019-06-30  time: 23:02:51.19 UTC  ML= 1.5
   lat: 46.009N  lon: 21.040E  h=  8.4 km
                 erh= 2.6km    erz= 2.2km
   nr= 21        gap=109       rms=0.77
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
TIM   33.4 155    PgC  23:02:58.31    0.96
                  Sg      03:01.90   -0.25
SIRR  55.8  59    PgD  23:03:01.32    0.05
                  Sg      03:08.20   -0.94
BZS   62.6 134    Pg   23:03:02.89    0.42
                  Sg      03:10.30   -0.96
BANR  70.1 174    PgD  23:03:04.25    0.45
                  Sg      03:12.60   -1.03
SURR  88.9 109    PgC  23:03:06.85   -0.28
                  Sg      03:18.20   -1.37
PKS6 131.2 300    Sn   23:03:29.06   -1.86
FRGS 136.6 225    Pn   23:03:14.74    0.57
                  Sn      03:30.80   -1.30
MDVR 146.3 159    PnC  23:03:16.40    1.01
                  Sn      03:34.20   -0.06
GZR  151.6 117    PnC  23:03:16.59    0.54
                  Sn      03:35.80    0.36
DRGR 155.2  56    Pn   23:03:16.47   -0.02
                  Sn      03:35.41   -0.82
MARR 176.4  65    PnD  23:03:19.63    0.49
MESR 193.6  49    PnC  23:03:22.65    1.36
```



572.

```
 2019-07-01  time:  7:36:39.57 UTC  ML= 1.1
   lat: 47.200N  lon: 18.295E  h=  0.0 km
                 erh= 1.2km    erz= 428km
   nr= 12        gap=148       rms=0.35
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.4 352    Pg    7:36:42.74   -0.10
                  Sg      36:45.31   -0.09
```

```
PKST  20.8 288    Pg    7:36:43.19   -0.10
                  Sg      36:46.03   -0.16
PKSG  22.5  19    Pg    7:36:43.70    0.11
                  Sg      36:46.55   -0.18
MPLH  57.4 267    Pg    7:36:50.80    0.99
                  Sg      36:57.63   -0.17
MORH 112.6 166    Pg    7:36:59.65   -0.02
                  Sg      37:15.09   -0.27
PKSM 113.0 166    Pg    7:36:59.96    0.22
                  Sg      37:14.51   -0.97
```

573.

```
 2019-07-01  time:  8:00:49.61 UTC  ML= 2.2
   lat: 48.275N  lon: 21.277E  h=  0.0 km
                 erh= 5.3km    erz= 5.8km
   nr=  9        gap=149       rms=0.92
   Locality: Sima
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  63.0 292    Pg    8:01:00.34   -0.53
                  Sg      01:08.13   -1.52
TRPA  95.2 100    Pg    8:01:06.23   -0.38
                  Sg      01:19.68   -0.19
KOLS 103.7  45    Pg    8:01:09.09    0.95
PSZ  110.3 249    Pg    8:01:10.60    1.28
                  Sg      01:23.27   -1.42
A336 169.2 268    Sn    8:01:40.61    0.92
VYHS 182.4 278    Sn    8:01:42.56   -0.07
```

574.

```
 2019-07-01  time:  8:19:52.40 UTC  ML= 1.2
   lat: 48.655N  lon: 18.605E  h=  0.0 km
                 erh= 4.5km    erz= 5.5km
   nr= 11        gap=162       rms=0.81
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  24.7 136    Pg    8:19:57.71    0.90
                  Sg      20:00.38    0.12
A336  55.2 148    Sg    8:20:09.61   -0.34
MODS 102.9 252   ePg    8:20:10.70   -0.08
                 eSg      20:26.80    1.69
PENC 108.5 152    Sg    8:20:25.74   -1.13
PSZ  126.0 131    Pg    8:20:15.68    0.79
                  Sg      20:30.98   -1.46
MORC 146.8 328    Pn    8:20:17.99    0.25
                  Sn      20:36.28   -1.23
VRAC 164.2 296    Sn    8:20:40.74   -0.62
```

575.

```
 2019-07-02  time:  7:12:03.99 UTC  ML= 1.5
   lat: 48.566N  lon: 20.693E  h=  0.0 km
                 erh= 7.8km    erz= 3.6km
   nr=  6        gap=274       rms=0.40
   Locality: Bódvaszilas
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  17.9 239    Pg    7:12:07.49    0.31
                  Sg      12:10.08    0.41
PSZ   93.3 219    Sg    7:12:32.98   -0.67
LANS 110.9 306    Pg    7:12:23.42   -0.38
VYHS 137.4 267    Pn    7:12:28.51    0.36
                  Sn      12:46.67   -0.33
```

576.

```
 2019-07-02  time:  7:39:00.02 UTC  ML= 0.3
   lat: 47.293N  lon: 18.334E  h=  0.0 km
                 erh= 1.6km    erz= 260km
   nr=  6        gap=239       rms=0.15
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   9.5 324    Pg    7:39:01.73    0.01
                  Sg      39:02.95   -0.10
PKSG  11.7  21    Pg    7:39:02.02   -0.09
                  Sg      39:03.99    0.24
PKST  23.0 260    Pg    7:39:04.02   -0.11
                  Sg      39:07.69    0.35
```

577.

```
 2019-07-02  time:  7:46:18.18 UTC  ML= 1.1
   lat: 47.292N  lon: 18.324E  h=  0.0 km
                 erh= 0.8km    erz= 232km
   nr=  8        gap=144       rms=0.16
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   9.3 329    Pg    7:46:19.83    0.00
                  Sg      46:21.06   -0.07
PKSG  12.2  24    Pg    7:46:20.25   -0.10
                  Sg      46:22.18    0.13
PKST  22.3 261    Pg    7:46:22.26    0.11
                  Sg      46:25.16   -0.09
PKSM 122.5 169    Pg    7:46:40.12    0.07
                  Sg      46:55.18   -1.93*
```

578.

```
 2019-07-02  time:  7:54:28.68 UTC  ML= 1.6
   lat: 47.856N  lon: 19.138E  h=  0.0 km
                 erh= 1.9km    erz= 623km
   nr= 11        gap=139       rms=0.51
   Locality: Szendehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A270   9.0 263    Pg    7:54:29.85   -0.44
PENC  13.0 124    Pg    7:54:30.98   -0.03
                  Sg      54:32.76   -0.06
HU03  35.0  81    Sg    7:54:40.74    0.93
A336  43.2 346    Pg    7:54:36.78    0.38
                  Sg      54:42.68    0.25
PSZ   57.0  83    Sg    7:54:46.50   -0.32
VYHS  74.4 342    Pg    7:54:42.63    0.65
                  Sg      54:51.84   -0.50
KECS 122.2  55   ePg    7:54:49.80   -0.70
                 eSg      55:06.40   -1.12
```

579.

```
 2019-07-02  time:  9:09:00.87 UTC  ML= 1.1
   lat: 47.837N  lon: 19.875E  h=  0.0 km
                 erh= 7.5km    erz= ***km
   nr=  7        gap=207       rms=0.89
   Locality: Gyöngyösoroszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ    9.2   9    Pg    9:09:02.85    0.34
                  Sg      09:04.66    0.88
HU03  21.9 290    Sg    9:09:08.87    1.03
PENC  44.8 263    Sg    9:09:14.99   -0.11
HU02  57.9  57    Sg    9:09:18.64   -0.65
KECS  85.0  32    Sg    9:09:27.59   -0.30
```

```
VYHS 106.4 313    Sg    9:09:32.30   -2.38
```

580.

```
 2019-07-02  time:  9:25:47.81 UTC  ML= 0.9
   lat: 47.210N  lon: 18.284E  h=  0.0 km
                 erh= 2.9km    erz= 384km
   nr=  6        gap=264       rms=0.22
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  17.1 354    Pg    9:25:51.29    0.43
                  Sg      25:53.05   -0.18
PKST  19.6 286    Pg    9:25:51.19   -0.13
                  Sg      25:54.09    0.04
PKSG  21.7  22    Pg    9:25:51.55   -0.14
                  Sg      25:54.65   -0.06
```

581.

```
 2019-07-03  time:  5:43:57.86 UTC  ML= 1.2
   lat: 47.803N  lon: 19.954E  h=  0.0 km
                 erh= 7.5km    erz= ***km
   nr=  6        gap=241       rms=0.65
   Locality: Gyöngyössolymos
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   13.6 341    Pg    5:44:00.88    0.60
                  Sg      44:02.63    0.46
PENC  50.4 268    Sg    5:44:13.75   -0.11
KECS  85.4  28    Sg    5:44:24.21   -0.78
A336  85.8 304    Sg    5:44:23.90   -1.22
VYHS 113.2 313   eSg    5:44:34.10    0.26
```

582.

```
 2019-07-03  time:  7:56:18.67 UTC  ML= 1.0
   lat: 47.057N  lon: 18.093E  h=  0.0 km
                 erh= 2.6km    erz= 726km
   nr=  8        gap=135       rms=0.54
   Locality: Balatonkenese
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  22.9 349    Pg    7:56:22.60   -0.16
                  Sg      56:26.12    0.18
CSKK  36.3  21    Pg    7:56:25.69    0.53
                  Sg      56:29.62   -0.60
MPLH  43.8 287    Sg    7:56:32.07   -0.53
PKSM 102.9 156    Pg    7:56:37.80    0.75
                  Sg      56:50.66   -0.72
KOVH 107.7 180    Sg    7:56:52.36   -0.54
```

583.

```
 2019-07-03  time:  8:25:30.00 UTC  ML= 1.9
   lat: 47.304N  lon: 18.462E  h=  0.0 km
                 erh= 6.0km    erz= 5.7km
   nr=  6        gap=249       rms=0.65
   Locality: Pátka
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  11.2 331    PgU   8:25:32.40    0.40
                  Sg      25:32.90   -0.66
CSKK  16.6 294    Pg    8:25:33.65    0.68
                  Sg      25:35.39    0.11
PKST  32.8 261    Sg    8:25:39.59   -0.82
VYHS 135.3  12    Sn    8:26:11.42   -1.12
```

584.

```
 2019-07-03  time:  8:38:21.86 UTC  ML= 0.6
   lat: 47.252N  lon: 18.252E  h=  0.0 km
                 erh= 0.6km    erz=76.9km
   nr=  5        gap=239       rms=0.04
   Locality: Kincsesbánya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  12.4   3    Sg    8:38:25.82    0.03
PKST  16.5 273    Pg    8:38:24.84    0.03
                  Sg      38:27.02   -0.09
PKSG  18.7  34    Pg    8:38:25.20   -0.01
                  Sg      38:27.81   -0.01
```

585.

```
 2019-07-03  time:  8:57:09.56 UTC  ML= 1.8
   lat: 48.540N  lon: 19.341E  h=  0.0 km
                 erh= 1.9km    erz= 5.3km
   nr= 10        gap=191       rms=0.61
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  37.6 262    Pg    8:57:16.56    0.29
                  Sg      57:21.20   -0.31
A336  42.4 217    Pg    8:57:17.77    0.64
                  Sg      57:23.19    0.14
PSZ   80.4 149    Pg    8:57:23.94    0.03
                  Sg      57:34.57   -0.54
PENC  83.4 183    Sg    8:57:35.61   -0.45
KECS  84.8  94    Pg    8:57:25.41    0.71
                  Sg      57:35.87   -0.65
MODS 153.7 263   ePn    8:57:34.30   -1.46
                 eSn      57:52.10   -4.10*
```

586.

```
 2019-07-04  time:  6:07:19.41 UTC  ML= 1.5
   lat: 47.336N  lon: 18.460E  h=  0.0 km
                 erh= 2.2km    erz= 4.0km
   nr=  8        gap=161       rms=0.45
   Locality: Lovasberény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.1 320    Pg    6:07:21.10    0.25
                  Sg      07:21.72   -0.25
CSKK  15.3 281    Pg    6:07:22.37    0.22
                  Sg      07:23.57   -0.71
PKST  33.3 255    Sg    6:07:30.60    0.61
MORH 125.4 174    Sg    6:07:59.21   -0.05
PKSM 125.8 174    Sg    6:07:59.45    0.06
VYHS 131.8  12    Sn    6:08:00.00   -1.17
```

587.

```
 2019-07-04  time:  7:43:36.50 UTC  ML= 2.2
   lat: 47.354N  lon: 18.503E  h=  0.0 km
                 erh= 1.2km    erz= 343km
   nr=  8        gap=164       rms=0.25
   Locality: Lovasberény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   9.5 297    PgU   7:43:38.49    0.29
                  Sg      43:39.10   -0.43
CSKK  18.4 273    Pg    7:43:39.99    0.20
                  Sg      43:41.95   -0.40
PKST  37.0 253    Sg    7:43:48.26    0.00
MORH 126.9 175    Sg    7:44:16.77   -0.09
PKSM 127.4 175    Sg    7:44:16.94   -0.05
```

```
VYHS 129.2  11    Sg    7:44:17.46   -0.12
```

588.

```
 2019-07-04  time:  7:57:39.08 UTC  ML= 2.3
   lat: 48.230N  lon: 21.242E  h=  0.0 km
                 erh= 5.4km    erz= 668km
   nr=  5        gap=253       rms=0.31
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   7.4 358    PgU   7:57:40.46    0.06
                  Sg      57:40.85   -0.58
KECS  62.8 297    Pg    7:57:50.65    0.36
                  Sg      57:59.02   -0.01
PSZ  106.2 251    Sg    7:58:12.52   -0.33
```

589.

```
 2019-07-04  time:  8:01:19.72 UTC  ML= 1.9
   lat: 48.240N  lon: 18.768E  h=  0.0 km
                 erh= 1.8km    erz= 2.9km
   nr= 21        gap= 68       rms=0.89
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A336  17.1  93    Pg    8:01:23.01    0.22
                  Sg      01:25.76    0.59
VYHS  28.7  10    Pg    8:01:25.62    0.77
                  Sg      01:29.60    0.76
A338  39.8 231    Pg    8:01:27.20    0.37
                  Sg      01:33.51    1.14
SRO   58.3 216    Sg    8:01:38.97    0.71
PENC  63.0 143    Pg    8:01:31.25    0.28
                  Sg      01:39.27   -0.47
A337  72.7 270    Sg    8:01:43.26    0.43
PSZ   91.2 113    Sg    8:01:47.62   -1.10
PKSG  98.5 197    Sg    8:01:50.60   -0.42
CSKK 104.7 201    Pg    8:01:39.08    0.67
                  Sg      01:51.67   -1.32
MODS 111.6 278   ePg    8:01:38.20   -1.45
                 eSg      01:53.20   -2.00
KECS 130.1  78    Sg    8:01:58.25   -2.83
EGYH 141.2 230    Sn    8:02:03.13   -0.45
MPLH 150.5 218    Sn    8:02:04.22   -1.43
ABAH 183.6  88    Sn    8:02:14.00    1.02
MORC 193.0 332    Sn    8:02:13.45   -1.63
```

590.

```
 2019-07-04  time:  8:03:53.66 UTC  ML= 1.4
   lat: 48.571N  lon: 20.761E  h=  0.0 km
                 erh= 2.3km    erz= 4.5km
   nr=  9        gap=150       rms=0.47
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.6 244    Pg    8:03:58.08    0.39
                  Sg      04:00.04   -0.80
ABAH  46.8 131    Pg    8:04:01.86   -0.15
                  Sg      04:08.07   -0.45
PSZ   97.0 222    Pg    8:04:11.67    0.69
                  Sg      04:24.19   -0.31
NIE   99.8 341    Pg    8:04:11.36   -0.13
VYHS 142.5 267    Pn    8:04:18.63    0.18
                  Sn      04:35.82   -1.98
```

591.

```
 2019-07-04  time:  8:26:53.39 UTC  ML= 1.2
   lat: 46.177N  lon: 18.285E  h=  0.0 km
                 erh= 1.0km    erz= 149km
   nr=  8        gap=206       rms=0.11
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.4 235    Pg    8:26:56.36   -0.14
                  Sg      26:59.01    0.08
PKSM  27.7  82    Pg    8:26:58.35    0.01
                  Sg      27:02.26    0.05
MORH  28.0  81    Pg    8:26:58.39    0.00
                  Sg      27:02.37    0.07
PKSV  32.2 185    Pg    8:26:59.25    0.11
                  Sg      27:03.19   -0.44
```

592.

```
 2019-07-04  time:  9:11:45.15 UTC  ML= 1.0
   lat: 47.212N  lon: 18.276E  h=  0.0 km
                 erh= 2.0km    erz= 3.1km
   nr= 10        gap=142       rms=0.54
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.8 356    Pg    9:11:48.30    0.15
                  Sg      11:49.95   -0.55
PKST  19.0 286    Pg    9:11:49.02    0.47
                  Sg      11:50.69   -0.51
PKSG  21.8  23    Pg    9:11:49.09    0.05
                  Sg      11:52.71    0.64
PKSM 114.6 166    Pg    9:12:06.04    0.42
                  Sg      12:19.45   -2.13
VYHS 148.6  16    Pn    9:12:10.43   -0.27
                  Sn      12:29.50   -1.14
```

593.

```
 2019-07-04  time: 10:18:37.80 UTC  ML= 2.2
   lat: 46.206N  lon: 16.063E  h= 15.7 km
                 erh= 1.7km    erz= 1.4km
   nr= 20        gap= 99       rms=0.59
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOGS  30.6  28   iPg   10:18:44.18    0.24
                 iSg      18:48.42   -0.31
PTJ   34.9 193    Pg   10:18:44.24   -0.39
                  Sg      18:48.92   -1.04
GOLS  40.2 237   iPg   10:18:46.18    0.67
GROS  51.7 303   iPg   10:18:47.73    0.28
                 eSg      18:54.64   -0.33
BEHE  62.3  62    Pg   10:18:49.38    0.11
                  Sg      18:57.94   -0.27
PDKS  83.9 259   iP*   10:18:53.27    0.44
PERS  87.1 303    P*   10:18:53.21   -0.11
                  S*      19:04.08   -1.35
SOKA  95.0 304    P*   10:18:54.53    0.00
                  S*      19:06.44   -1.14
OBKA 121.3 286    Sn   10:19:12.59   -1.09
ARSA 123.3 340    Pn   10:18:58.98    0.78
                  Sn      19:14.65    0.54
KOVH 157.9  95    Pn   10:19:02.70    0.18
                  Sn      19:20.26   -1.54
PKB4 198.3  81    Pn   10:19:08.45    0.90
```

594.

2019-07-04 time: 13:10:15.88 UTC ML= 1.5
lat: 46.792N lon: 17.330E h= 0.0 km
erh= 1.7km erz= 616km
nr= 10 gap=151 rms=0.48
Locality: Keszthely
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
MPLH	44.9	21	Pg	13:10:23.52	-0.38
			Sg	10:29.95	-0.20
BEHE	55.5	230	Pg	13:10:26.06	0.27
			Sg	10:33.31	-0.22
PKST	74.6	46	Pg	13:10:29.00	-0.19
			Sg	10:40.84	1.26
KOVH	98.1	143	Pg	13:10:33.87	0.47
			Sg	10:47.37	0.31
MORH	119.5	122	Sg	13:10:52.74	-1.13
PKSM	119.6	123	Sg	13:10:53.60	-0.29

595.

2019-07-04 time: 17:49:51.21 UTC ML= 1.8
lat: 48.550N lon: 20.839E h= 0.0 km
erh= 2.4km erz= 3.4km
nr= 8 gap= 91 rms=0.66
Locality: Hidvégardó
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	27.2	254	Pg	17:49:55.71	-0.35
ABAH	40.9	134	Sg	17:50:04.90	0.69
PSZ	99.3	225	Sg	17:50:23.08	0.31
NIE	104.0	338	Pg	17:50:10.78	0.99
			Sg	50:24.28	0.00
KOLS	113.8	68	Sg	17:50:26.54	-0.83
A336	140.8	256	Sn	17:50:34.17	-0.80
VYHS	148.1	268	Sn	17:50:36.03	-0.57

596.

2019-07-05 time: 7:04:42.86 UTC ML= 1.6
lat: 47.514N lon: 18.612E h= 0.0 km
erh= 3.5km erz= 564km
nr= 11 gap=211 rms=0.46
Locality: Bicske
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	21.5	231	Pg	7:04:47.29	0.58
			Sg	04:50.37	0.66
CSKK	31.4	238	Pg	7:04:48.50	0.03
			Sg	04:52.67	-0.17
SRO	40.1	326	ePg	7:04:50.00	-0.03
			eSg	04:55.50	-0.12
PKST	52.0	237	Pg	7:04:51.40	-0.76
			Sg	04:58.73	-0.67
A336	85.0	20	Sg	7:05:09.48	-0.41
VYHS	110.2	9	Pg	7:05:02.97	0.42
			Sg	05:18.00	0.10

597.

2019-07-05 time: 7:27:22.41 UTC ML= 2.3
lat: 46.215N lon: 16.057E h= 0.1 km
erh= 1.2km erz= 1.9km
nr= 37 gap=130 rms=0.55
Locality: Croatia
Comments:

sta	dist	azm	phase	hr mn sec	res
KOGS	29.9	30	Pg	7:27:28.17	0.43
			Sg	27:32.01	0.11
PTJ	35.9	192	Pg	7:27:28.35	-0.46
			Sg	27:32.20	-1.61
GOLS	40.4	236	ePgD	7:27:30.29	0.66
			eSg	27:35.73	0.47
DOBS	46.0	261	ePg	7:27:30.95	0.33
			eSg	27:38.09	1.06
GROS	50.8	303	Pg	7:27:31.85	0.38
			Sg	27:38.57	0.03
GCIS	51.0	221	ePgD	7:27:31.47	-0.05
CESS	53.2	240	iPgD	7:27:32.42	0.50
			eSg	27:40.01	0.68
BEHE	62.1	63	Pg	7:27:33.67	0.16
			Sg	27:41.66	-0.50
CRES	63.5	227	Pg	7:27:33.73	-0.02
			Sg	27:42.26	-0.34
LEGS	64.4	243	ePgC	7:27:34.04	0.13
			eSg	27:43.62	0.73
ZAVS	83.2	287	ePgC	7:27:37.16	-0.10
PDKS	83.6	258	ePgC	7:27:37.32	-0.03
SOKA	94.1	303	Pg	7:27:39.15	-0.06
			Sg	27:50.84	-1.47
BOJS	100.8	218	ePg	7:27:40.85	0.44
VISS	104.9	244	ePgD	7:27:40.38	-0.75
VNDS	105.5	263	ePg	7:27:40.85	-0.40
			eSg	27:56.03	0.09
OBKA	120.6	286	Sg	7:27:58.95	-1.80
MOZS	124.8	274	ePg	7:27:44.38	-0.31
GBAS	128.8	256	ePg	7:27:44.34	-1.06
CRNS	139.6	264	ePn	7:27:46.60	-0.23
KNDS	150.9	240	ePnC	7:27:48.45	0.20
			eSn	28:09.03	0.62
JAVS	158.3	257	ePnD	7:27:49.34	0.17
			eSn	28:10.88	0.83
SKDS	175.2	245	ePn	7:27:52.16	0.89
			eSn	28:15.07	1.28
CONA	191.0	356	Pn	7:27:57.09	3.84*

598.

2019-07-05 time: 7:39:15.92 UTC ML= 1.8
lat: 47.318N lon: 17.657E h= 0.0 km
erh= 1.3km erz= 1.5km
nr= 15 gap= 97 rms=0.54
Locality: Bakonykoppány
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
MPLH	18.7	208	Pg	7:39:19.41	0.14
			Sg	39:21.30	-0.58
EGYH	26.9	294	Pg	7:39:20.86	0.13
			Sg	39:25.72	1.24
PKST	29.3	103	Pg	7:39:21.89	0.74
			Sg	39:25.62	0.40
CSKK	45.8	84	Sg	7:39:30.12	-0.37
PKSG	56.0	82	Pg	7:39:25.86	-0.06
			Sg	39:33.63	-0.09
A336	143.0	45	Pn	7:39:40.78	-0.01
			Sn	39:59.60	-0.58
MORH	143.9	148	Sn	7:39:59.45	-0.92
CONA	151.1	297	Sn	7:40:00.08	-1.89
VYHS	157.6	34	Pn	7:39:42.58	-0.03
			Sn	40:02.39	-1.04

599.

2019-07-05 time: 7:41:49.93 UTC ML= 1.0
lat: 47.109N lon: 18.004E h= 0.0 km
erh= 2.0km erz= 698km
nr= 11 gap=119 rms=0.56
Locality: Litér
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	16.9	8	Pg	7:41:52.79	-0.15
			Sg	41:55.34	0.05

```
CSKK  34.3  35    Pg    7:41:56.74    0.68
                  Sg      41:59.66   -1.18
MPLH  35.9 281    Pg    7:41:56.52    0.19
                  Sg      42:01.03   -0.30
MORH 110.7 154    Pg    7:42:09.92    0.22
PKSM 111.0 154    Pg    7:42:10.05    0.29
                  Sg      42:23.91   -1.31
KOVH 113.7 176    Pg    7:42:10.59    0.36
                  Sg      42:24.87   -1.20
```

600.

```
 2019-07-05  time:  7:50:45.58 UTC  ML= 2.0
   lat: 48.241N  lon: 21.256E  h=  0.0 km
                 erh= 2.3km    erz= 4.2km
   nr=  8        gap=153       rms=0.48
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   6.3 349    Pg    7:50:47.10    0.40
                  Sg      50:48.50    0.92
KECS  63.2 295    Pg    7:50:56.53   -0.33
                  Sg      51:05.17   -0.49
TRPA  96.2  97    Sg    7:51:16.07   -0.08
KOLS 107.5  44    Sg    7:51:18.93   -0.82
PSZ  107.6 251    Sg    7:51:19.93    0.14
VYHS 181.5 279    Sn    7:51:38.71    0.32
```

601.

```
 2019-07-05  time: 20:06:01.91 UTC  ML= 1.7
   lat: 45.915N  lon: 16.004E  h=  7.9 km
                 erh= 1.2km    erz= 1.7km
   nr= 18        gap=141       rms=0.35
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PTJ    3.9 245    Pg   20:06:03.30   -0.19
                  Sg      06:04.03   -0.69
ZAG    9.6 185    Pg   20:06:04.24    0.11
                  Sg      06:06.56    0.70
GCIS  29.7 260   ePgD  20:06:07.54    0.14
                 eSg      06:12.17    0.50
GOLS  31.3 290   ePg   20:06:08.21    0.54
CRES  43.6 257    Pg   20:06:09.82    0.00
                  Sg      06:15.39   -0.61
DOBS  48.9 302   ePg   20:06:10.76    0.00
                 eSg      06:17.48   -0.18
LEGS  53.3 274   ePg   20:06:11.61    0.07
KOGS  62.3  18    Pg   20:06:12.46   -0.66
                  Sg      06:22.21    0.35
GROS  72.0 327    Pg   20:06:14.78   -0.07
                  Sg      06:25.21    0.27
BEHE  85.8  44    Pg   20:06:17.45    0.15
                  Sg      06:29.23   -0.07
PERS 105.4 320    Sg   20:06:33.18   -2.31*
```

602.

```
 2019-07-06  time:  0:38:21.89 UTC  ML= 2.1
   lat: 48.368N  lon: 22.879E  h= 11.6 km
                 erh= 3.3km    erz= 1.5km
   nr=  8        gap=220       rms=0.33
   Locality: Ukraine
   Comments:

sta   dist azm  phase  hr mn  sec     res
TRPA  36.6 224    Pg    0:38:28.73   -0.02
                  Sg      38:34.00   -0.09
KOLS  77.1 325    Pg    0:38:35.56   -0.24
                  Sg      38:47.35    0.69
ABAH 121.9 266    Pn    0:38:42.48   -0.15
                  Sn      38:58.60   -0.21
DRGR 175.8 184    Sn    0:39:11.30    0.52
KECS 177.6 274    Sn    0:39:14.97    3.78*
```

603.

```
 2019-07-06  time:  8:49:32.30 UTC  ML= 1.2
   lat: 46.210N  lon: 18.236E  h=  0.0 km
                 erh= 3.4km    erz= 468km
   nr=  6        gap=231       rms=0.43
   Locality: Komló
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.1 218    PgU   8:49:35.78    0.42
                  Sg      49:38.32    0.58
MORH  31.5  89    Pg    8:49:37.81   -0.12
                  Sg      49:42.54    0.22
PKSV  35.7 178    Pg    8:49:38.37   -0.31
                  Sg      49:42.72   -0.94
```

604.

```
 2019-07-08  time:  8:09:50.75 UTC  ML= 1.4
   lat: 46.066N  lon: 18.061E  h=  0.0 km
                 erh= 6.1km    erz= 724km
   nr=  7        gap=306       rms=0.48
   Locality: Boda
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   3.9  51    Pg    8:09:51.85    0.41
                  Sg      09:52.82    0.84
PKSM  47.7  70    Pg    8:09:59.13   -0.13
                  Sg      10:05.24   -0.66
MORH  48.0  70    Pg    8:09:59.23   -0.10
PKS9  60.3  16    Sg    8:10:09.00   -0.90
PKB5  78.4  41    Sg    8:10:15.98    0.30
```

605.

```
 2019-07-08  time:  8:28:29.34 UTC  ML= 1.3
   lat: 48.569N  lon: 20.720E  h=  0.0 km
                 erh= 1.8km    erz= 2.5km
   nr=  8        gap=222       rms=0.21
   Locality: Komjáti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  19.7 241    Pg    8:28:32.91    0.04
                  Sg      28:35.62    0.00
ABAH  49.0 128    Pg    8:28:38.18    0.09
                  Sg      28:44.71   -0.20
PSZ   94.8 220    Pg    8:28:46.47    0.20
                  Sg      28:59.27   -0.21
VYHS 139.4 267    Pn    8:28:53.65   -0.10
                  Sn      29:09.51   -3.29*
```

606.

```
 2019-07-08  time:  8:49:48.63 UTC  ML= 1.3
   lat: 47.873N  lon: 18.839E  h=  0.0 km
                 erh= 1.6km    erz= 659km
   nr= 13        gap=107       rms=0.56
   Locality: Márianosztra
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  34.4 106    Pg    8:49:55.65    0.88
                  Sg      50:00.13    0.57
A338  39.6 293    Sg    8:50:03.13    1.90
A336  41.7  17    Pg    8:49:55.96   -0.13
                  Sg      50:01.81   -0.09
PKSG  63.3 212    Pg    8:50:00.25    0.32
                  Sg      50:08.51   -0.23
```

```
VYHS  69.0 360    Pg    8:50:01.14    0.18
                  Sg      50:09.85   -0.72
CSKK  71.5 217    Sg    8:50:10.66   -0.69
PSZ   79.1  86    Sg    8:50:12.85   -0.92
PKST  91.3 222    Pg    8:50:04.62   -0.31
                  Sg      50:17.23   -0.42
```

607.

```
 2019-07-09  time:  6:24:22.31 UTC  ML= 1.1
   lat: 47.497N  lon: 18.634E  h=  0.0 km
                 erh= 3.8km    erz= 645km
   nr=  9        gap=230       rms=0.49
   Locality: Bicske
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  21.8 237    Pg    6:24:26.48    0.28
                  Sg      24:29.53    0.30
CSKK  31.9 242    Pg    6:24:27.25   -0.75
                  Sg      24:31.88   -0.56
SRO   42.6 326    Sg    6:24:36.27    0.42
PKST  52.4 240    Pg    6:24:32.31    0.63
                  Sg      24:38.39   -0.59
VYHS 111.8   8    Pg    6:24:42.43    0.14
                  Sg      24:57.61   -0.26
```

608.

```
 2019-07-09  time:  7:29:07.83 UTC  ML= 1.4
   lat: 47.799N  lon: 19.066E  h=  0.0 km
                 erh= 7.1km    erz= 745km
   nr=  6        gap=254       rms=0.71
   Locality: Verőce
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  16.2  93    Pg    7:29:11.53    0.80
                  Sg      29:13.02    0.03
A336  48.5 354    Sg    7:29:23.06   -0.20
PSZ   63.4  78    Pg    7:29:18.81   -0.35
                  Sg      29:26.25   -1.74
VYHS  79.1 348    Sg    7:29:33.47    0.48
```

609.

```
 2019-07-09  time:  8:53:36.63 UTC  ML= 1.1
   lat: 47.878N  lon: 19.184E  h=  0.0 km
                 erh= 4.4km    erz= 808km
   nr=  6        gap=196       rms=0.48
   Locality: Felsőpetény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  12.2 143    Pg    8:53:38.39   -0.42
                  Sg      53:41.07    0.56
PSZ   53.3  85    Pg    8:53:46.62    0.47
                  Sg      53:52.53   -1.05
VYHS  73.2 339    Pg    8:53:49.85    0.16
                  Sg      53:59.76   -0.12
```

610.

```
 2019-07-09  time:  9:29:36.77 UTC  ML= 1.1
   lat: 47.203N  lon: 18.289E  h=  0.0 km
                 erh= 1.4km    erz= 1.2km
   nr=  7        gap=268       rms=0.15
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  17.9 353    Pg    9:29:39.84   -0.13
                  Sg      29:42.31   -0.16
PKST  20.3 288    Pg    9:29:40.36   -0.03
                  Sg      29:43.27    0.06
PKSG  22.4  20    Pg    9:29:40.94    0.18
                  Sg      29:44.10    0.23
VYHS 149.3  16    Sn    9:30:22.18   -0.23
```

611.

```
 2019-07-10  time:  6:29:42.74 UTC  ML= 1.3
   lat: 47.301N  lon: 18.330E  h=  0.0 km
                 erh= 1.0km    erz= 2.5km
   nr= 10        gap=145       rms=0.26
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   8.7 323    Pg    6:29:44.20   -0.09
                  Sg      29:45.06   -0.45
PKSG  11.1  24    PgU   6:29:44.75    0.03
                  Sg      29:46.60    0.34
PKST  22.9 258    Pg    6:29:46.95    0.12
                  Sg      29:50.55    0.54
MORH 123.0 169    Sg    6:30:21.66   -0.17
PKSM 123.4 169    Sg    6:30:21.70   -0.26
VYHS 137.9  16    Pn    6:30:06.91   -0.06
                  Sn      30:23.65   -2.22*
```

612.

```
 2019-07-10  time:  7:31:53.96 UTC  ML= 1.2
   lat: 45.856N  lon: 18.407E  h=  0.0 km
                 erh= 6.1km    erz= 909km
   nr=  9        gap=262       rms=0.70
   Locality: Nagyharsány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSV  12.5 287    Pg    7:31:55.91   -0.28
                  Sg      31:56.97   -0.97
KOVH  35.1 317    Pg    7:32:00.33    0.11
                  Sg      32:04.89   -0.22
PKSM  43.5  25    Pg    7:32:01.94    0.21
                  Sg      32:06.85   -0.94
MORH  44.0  25    Pg    7:32:01.91    0.10
                  Sg      32:07.26   -0.69
PKS9  81.8 353    Pg    7:32:10.24    1.67
```

613.

```
 2019-07-10  time: 11:13:16.64 UTC  ML= 2.2
   lat: 48.505N  lon: 22.772E  h= 10.0 km
                 erh= 2.9km    erz= 2.4km
   nr= 24        gap=121       rms=0.97
   Locality: Ukraine
   Comments:

sta   dist azm  phase  hr mn  sec     res
TRPA  45.1 203    Pg   11:13:26.28    1.39
                  Sg      13:32.29    0.96
KOLS  60.1 322    Pg   11:13:26.64   -0.89
                  Sg      13:36.38    0.36
BMR  107.1 150    P*C  11:13:33.00   -2.75
                  S*      13:48.20   -2.45
ABAH 115.9 258    Pn   11:13:36.03   -0.81
                  Sn      13:51.95   -0.65
KWP  125.4 358    Pn   11:13:38.47    0.44
                  Sn      13:54.84    0.13
STHS 151.0 312   ePn   11:13:40.00   -1.23
KECS 169.0 269    Pn   11:13:44.14    0.67
                  Sn      14:04.49    0.09
DRGR 190.6 181    Pn   11:13:46.12   -0.04
                  Sn      14:08.41   -0.77
ARCR 197.4 143    Sn   11:14:12.83    2.14
MARR 205.0 173    PnC  11:13:47.46   -0.50
                  Sn      14:12.10   -0.29
NIE  206.8 299    Pn   11:13:49.61    1.43
```

```
                  Sn      14:13.58    0.80
BURA 207.4 119    PnC  11:13:48.13   -0.12
                  Sn      14:13.40    0.49
PSZ  223.6 253    Pn   11:13:50.12   -0.16
                  Sn      14:16.44   -0.08
```

614.

```
 2019-07-11  time:  6:24:05.78 UTC  ML= 1.7
   lat: 48.160N  lon: 21.323E  h=  0.0 km
                 erh= 2.1km    erz= 489km
   nr=  8        gap=164       rms=0.35
   Locality: Bodrogkeresztúr
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  16.3 338    Pg    6:24:08.91    0.21
                  Sg      24:11.11    0.14
KECS  71.8 300    Pg    6:24:18.70    0.10
                  Sg      24:27.54   -1.05
TRPA  90.6  92    Pg    6:24:22.02    0.07
                  Sg      24:34.20   -0.37
PSZ  109.9 256    Pg    6:24:25.72    0.32
KOLS 110.9  39   ePg    6:24:25.50   -0.09
                 eSg      24:37.80   -3.25*
```

615.

```
 2019-07-11  time:  8:36:47.06 UTC  ML= 0.8
   lat: 47.200N  lon: 18.259E  h=  0.0 km
                 erh= 1.5km    erz= 410km
   nr=  7        gap=140       rms=0.27
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.2   0    Pg    8:36:50.33    0.03
                  Sg      36:52.35   -0.48
PKST  18.2 291    Pg    8:36:50.71    0.40
                  Sg      36:52.59   -0.27
PKSG  23.5  25    Pg    8:36:51.32    0.06
                  Sg      36:54.65    0.11
PKSM 113.7 165    Sg    8:37:22.78   -0.41
```

616.

```
 2019-07-11  time:  9:18:33.77 UTC  ML= 2.0
   lat: 46.994N  lon: 22.244E  h=  0.0 km
                 erh= 1.8km    erz= 2.0km
   nr=  8        gap=135       rms=0.32
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  42.1 122    PgU   9:18:41.62    0.33
                  Sg      18:46.93   -0.23
TRPA 128.2  10    Pg    9:18:56.64   -0.03
BZS  160.6 198    Pn    9:19:01.03    0.21
                  Sn      19:21.20   -0.73
ARCR 160.6  86    Pn    9:19:00.91    0.08
                  Sn      19:20.91   -1.03
ABAH 163.2 332    Pn    9:19:01.14   -0.01
```

617.

```
 2019-07-11  time:  9:20:27.47 UTC  ML= 1.1
   lat: 48.589N  lon: 20.764E  h=  0.0 km
                 erh= 3.8km    erz= 5.4km
   nr=  8        gap=165       rms=0.54
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.6 240    Sg    9:20:36.03    1.05
ABAH  47.9 133    Pg    9:20:36.43    0.40
                  Sg      20:42.56   -0.15
PSZ   98.6 221    Pg    9:20:44.56   -0.51
                  Sg      20:58.62   -0.19
KOLS 117.4  71    Sg    9:21:04.75   -0.04
VYHS 142.7 266    Pn    9:20:52.55    0.25
                  Sn      21:10.27   -1.40
```

618.

```
 2019-07-11  time: 22:05:02.31 UTC  ML= 1.7
   lat: 46.032N  lon: 16.129E  h= 10.0 km
                 erh= 2.7km    erz= 4.0km
   nr= 19        gap=117       rms=0.85
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PTJ   19.8 222    PgU  22:05:05.62   -0.64
                  Sg      05:08.60   -0.75
ZAG   24.9 205    Pg   22:05:07.50    0.41
GOLS  39.2 267   iPg   22:05:09.65    0.13
GCIS  43.0 245   iPg   22:05:10.14   -0.05
KOGS  47.2  11    Sg   22:05:16.32   -1.33
CESS  52.0 263   iPg   22:05:12.19    0.43
DOBS  52.7 284   iPg   22:05:12.01    0.12
CRES  56.9 246    Pg   22:05:12.44   -0.19
                  Sg      05:19.75   -0.94
GROS  68.0 315    Pg   22:05:16.18    1.60
                  Sg      05:23.04   -1.10
BEHE  69.7  46    Pg   22:05:15.87    0.99
                  Sg      05:23.13   -1.56
PERS 102.9 311    Pg   22:05:21.26    0.49
                  Sg      05:33.76   -1.41
KOVH 152.6  88    Pn   22:05:27.22    0.13
                  Sn      05:45.20   -1.23
MORH 195.5  84    Pn   22:05:34.87    2.43
```

619.

```
 2019-07-12  time:  7:12:00.06 UTC  ML= 1.5
   lat: 47.334N  lon: 18.458E  h=  0.0 km
                 erh= 1.7km    erz= 4.5km
   nr=  9        gap=161       rms=0.36
   Locality: Lovasberény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.2 321    PgU   7:12:01.78    0.26
                  Sg      12:02.07   -0.58
CSKK  15.3 282    PgU   7:12:03.02    0.24
                  Sg      12:04.96    0.05
PKST  33.1 255    Pg    7:12:06.18    0.21
                  Sg      12:10.05   -0.54
MORH 125.2 173    Sg    7:12:39.75   -0.09
PKSM 125.6 174    Sg    7:12:39.99    0.02
VYHS 132.0  12    Sn    7:12:40.37   -1.50
```

620.

```
 2019-07-12  time:  7:45:12.60 UTC  ML= 1.6
   lat: 47.904N  lon: 19.412E  h=  0.0 km
                 erh= 2.1km    erz= 5.3km
   nr= 10        gap=130       rms=0.66
   Locality: Becske
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  16.0 218    Pg    7:45:14.85   -0.60
                  Sg      45:18.14    0.46
PSZ   36.1  88    Pg    7:45:19.24    0.19
                  Sg      45:24.32    0.24
A336  47.8 320    Pg    7:45:22.33    1.19
                  Sg      45:27.40   -0.40
VYHS  78.3 327    Sg    7:45:36.94   -0.56
```

```
KECS 102.6  51   ePg    7:45:31.00    0.08
                 eSg      45:44.20   -1.00
MODS 167.2 288   eSn    7:46:01.00   -1.24
```

621.

```
 2019-07-12  time:  9:06:48.40 UTC  ML= 2.0
   lat: 47.049N  lon: 17.766E  h=  0.0 km
                 erh= 6.5km    erz= 941km
   nr=  9        gap=251       rms=0.71
   Locality: Tótvázsony
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
TIH   19.2 150    Pg    9:06:51.55   -0.28
                  Sg      06:53.23   -1.28
PKST  30.9  41    Pg    9:06:53.82   -0.10
                  Sg      06:57.42   -0.81
CSKK  51.2  47    Pg    9:06:58.54    1.00
                  Sg      07:04.15   -0.52
PKSG  60.7  51    Sg    9:07:07.40   -0.30
MORH 114.5 144    Sg    9:07:25.70    0.91
PKSM 114.7 144    Sg    9:07:25.73    0.86
```

622.

```
 2019-07-13  time:  7:27:37.13 UTC  ML= 2.0
   lat: 46.696N  lon: 21.091E  h=  6.8 km
                 erh= 2.3km    erz= 2.0km
   nr= 33        gap= 87       rms=1.08
   Locality: Mezőmegyer
   Comments:

sta   dist azm  phase  hr mn  sec     res
HU24  24.2  12    Pg    7:27:41.26   -0.36
                  Sg      27:44.25   -0.88
HU06  40.0 272    Pg    7:27:44.24   -0.14
                  Sg      27:49.97   -0.06
SIRR  64.6 138    PgC   7:27:49.24    0.50
                  Sg      27:55.00   -2.79
PKSN  96.1 283    Sg    7:28:06.36   -1.39
HU21 112.3 248    Pg    7:27:56.72   -0.51
PKS6 117.4 265    Pn    7:27:58.02    0.09
                  Sn      28:12.11   -2.04
DRGR 124.3  85    Pn    7:27:58.48   -0.31
                  Sn      28:13.77   -1.91
BZS  126.7 161    Pn    7:27:59.69    0.60
                  Sn      28:14.56   -1.65
SURR 131.6 143    PnD   7:28:00.09    0.38
                  Sn      28:16.50   -0.81
PKB2 141.5 269    Sn    7:28:17.97   -1.53
PKS2 145.7 261    Sn    7:28:20.07   -0.36
PKB3 148.5 258    Sn    7:28:20.12   -0.94
MARR 155.1  91    PnC   7:28:02.90    0.26
                  Sn      28:21.60   -0.93
HU07 155.8  24    Pn    7:28:04.17    1.45
PSZ  163.3 326    Pn    7:28:04.85    1.20
                  Sn      28:24.49    0.16
ABAH 178.2   4    Sn    7:28:27.02   -0.63
CJR  191.7  89    PnD   7:28:08.93    1.73
                  Sn      28:31.00    0.35
GZR  194.9 138    PnD   7:28:08.94    1.34
                  Sn      28:32.90    1.54
MORH 195.4 254    Pn    7:28:09.55    1.89
                  Sn      28:33.25    1.78
PKSM 195.8 254    Pn    7:28:09.34    1.64
                  Sn      28:33.12    1.57
```

623.

```
 2019-07-13  time: 12:37:40.54 UTC  ML= 1.2
   lat: 47.500N  lon: 18.819E  h=  5.7 km
                 erh= 3.1km    erz=12.1km
   nr= 14        gap=153       rms=0.67
   Locality: Páty
   Comments:

sta   dist azm  phase  hr mn  sec     res
BUD   15.6  97    Pg   12:37:43.64    0.14
                  Sg      37:45.27   -0.54
PKSG  34.5 250    Pg   12:37:46.85    0.08
                  Sg      37:51.34   -0.30
CSKK  44.8 250    Pg   12:37:48.35   -0.25
                  Sg      37:54.66   -0.23
PENC  47.5  47    Pg   12:37:49.46    0.39
                  Sg      37:56.56    0.83
A336  82.6   9    Pg   12:37:55.79    0.46
                  Sg      38:06.30   -0.56
PSZ   93.2  60    Pg   12:37:56.99   -0.22
                  Sg      38:08.46   -1.75
VYHS 110.5   1   ePg   12:38:02.50    2.20
                 eSg      38:14.20   -1.51
```

624.

```
 2019-07-13  time: 12:41:12.61 UTC  ML= 2.5
   lat: 47.435N  lon: 18.849E  h= 10.9 km
                 erh= 1.0km    erz= 0.9km
   nr= 68        gap= 30       rms=0.72
   Locality: Sóskút
   Comments: felt 4 EMS

sta   dist azm  phase  hr mn  sec     res
BUD   14.2  68    Pg   12:41:15.92    0.10
                  Sg      41:17.80   -0.51
PKSG  34.9 262    Pg   12:41:19.40    0.26
                  Sg      41:24.22   -0.02
CSKK  45.1 260    Pg   12:41:20.91    0.01
                  Sg      41:27.00   -0.37
PKS7  49.2 151    Pg   12:41:22.23    0.62
                  Sg      41:29.00    0.37
PENC  51.2  39    Pg   12:41:21.92   -0.03
                  Sg      41:28.77   -0.47
SRO   58.2 316    Pg   12:41:24.24    1.06
                  Sg      41:29.95   -1.48
PKST  64.6 252    Pg   12:41:23.98   -0.33
                  Sg      41:32.62   -0.81
A338  74.4 330    Pg   12:41:26.82    0.77
                  Sg      41:36.51   -0.02
A336  89.4   7    Pg   12:41:28.52   -0.18
                  Sg      41:38.95   -2.29
PKB2  89.7 161    Pg   12:41:29.24    0.49
                  Sg      41:40.44   -0.90
TIH   93.8 231    Pg   12:41:29.69    0.22
                  Sg      41:41.68   -0.94
PKB5  93.8 185    Pg   12:41:29.64    0.16
                  Sg      41:41.22   -1.41
PSZ   95.1  56    Pg   12:41:29.63   -0.08
                  Sg      41:41.28   -1.77
PKSN  97.7 128    Pg   12:41:30.59    0.43
MPLH 103.3 253    P*   12:41:31.34    0.29
                  S*      41:44.44   -1.00
PKS9 103.8 205    P*   12:41:31.17    0.04
                  S*      41:44.50   -1.07
PKS6 107.7 150    Pn   12:41:32.18    0.51
                  Sn      41:45.47   -1.07
BSZH 108.2  98    Sn   12:41:47.20    0.54
PKS2 108.5 165    Pn   12:41:31.99    0.21
                  Sn      41:46.37   -0.35
EGYH 114.5 269    Pn   12:41:33.63    1.11
                  Sn      41:47.14   -0.92
PKB3 115.5 167    Pn   12:41:33.60    0.95
                  Sn      41:47.74   -0.54
```

```
VYHS 117.7 360    Pn   12:41:33.38    0.45
                  Sn      41:46.99   -1.78
A337 119.9 319    Pn   12:41:34.34    1.14
                  Sn      41:49.04   -0.22
MORH 136.5 187    Pn   12:41:34.79   -0.48
                  Sn      41:52.45   -0.49
PKSM 136.9 187    Pn   12:41:34.76   -0.56
                  Sn      41:52.83   -0.21
MODS 157.1 312   ePn   12:41:36.60   -1.24
                 eSn      41:55.50   -2.02
KOVH 160.3 201    Pn   12:41:37.54   -0.70
                  Sn      41:59.06    0.83
SOP  174.6 279    Pn   12:41:40.47    0.45
PKSV 177.9 195    Pn   12:41:40.21   -0.22
                  Sn      42:04.44    2.30
RONA 194.3 279    Pn   12:41:42.82    0.34
                  Sn      42:03.82   -1.95
LANS 196.2  14   ePn   12:41:46.30    3.59*
                 eSn      42:06.30    0.11
ABAH 202.9  62    Pn   12:41:44.86    1.32
BORR 225.6 100    PnC  12:41:46.43    0.06
KOGS 226.3 241    Pn   12:41:47.65    1.19
CONA 230.9 284    Pn   12:41:47.22    0.18
SIRR 250.6 121    PnD  12:41:49.74    0.24
ARSA 252.2 265    Pn   12:41:48.78   -0.91
                  Sn      42:17.71   -0.90
KRUC 256.7 315    Pn   12:41:50.53    0.27
VRAC 267.0 321    Pn   12:41:52.57    1.03
BZS  293.2 134    PnC  12:41:54.88    0.07
DRGR 301.8 104    PnD  12:41:55.00   -0.87*
SOKA 301.9 254    Pn   12:41:57.38    1.48*
                  Sn      42:27.69   -1.97*
SURR 313.0 127    PnC  12:41:57.52    0.25*
MOA  347.4 278    Pn   12:42:03.50    1.93*
                  Sn      42:35.80   -3.96*
DEV  355.1 119    PnC  12:42:03.72    1.20*
MDVR 368.9 143    PnC  12:42:04.73    0.49*
DPC  373.4 330   ePn   12:42:06.20    1.40*
BIOA 393.2 274    Pn   12:42:06.33   -0.94*
                  Sn      42:44.89   -5.02*
KHC  434.3 296   ePn   12:42:13.00    0.60*
                 eSn      42:58.50   -0.53*
BURA 480.0  88    PnC  12:42:17.73   -0.37*
WTTA 545.3 268    Pn   12:42:22.80   -3.44*
```

625.

```
 2019-07-13  time: 12:42:30.90 UTC  ML= 1.2
   lat: 47.448N  lon: 18.843E  h= 11.2 km
                 erh= 1.8km    erz= 1.7km
   nr= 16        gap=111       rms=0.61
   Locality: Biatorbágy
   Comments:

sta   dist azm  phase  hr mn  sec     res
BUD   14.2  74    Pg   12:42:34.51    0.38
                  Sg      42:36.29   -0.36
PKSG  34.7 260    Pg   12:42:38.15    0.74
                  Sg      42:42.21   -0.28
CSKK  45.0 258    Sg   12:42:45.68    0.06
PENC  50.4  41    Pg   12:42:40.25    0.14
PKST  64.6 251    Sg   12:42:51.10   -0.64
A336  88.1   8    Pg   12:42:46.98    0.23
                  Sg      42:57.90   -1.21
PSZ   94.7  56    Pg   12:42:48.26    0.34
                  Sg      43:00.26   -0.95
PKB5  95.2 185    Sg   12:43:00.41   -0.95
VYHS 116.3 360    Sn   12:43:05.71   -0.96
MORH 137.8 186    Pn   12:42:54.74    1.06
                  Sn      43:11.41   -0.04
PKSM 138.3 186    Sn   12:43:11.13   -0.42
```

626.

```
 2019-07-13  time: 12:46:40.47 UTC  ML= 0.8
   lat: 47.457N  lon: 18.833E  h= 10.0 km
                 erh= 4.4km    erz= 4.9km
   nr= 10        gap=171       rms=0.40
   Locality: Biatorbágy
   Comments:

sta   dist azm  phase  hr mn  sec     res
BUD   14.7  78    Pg   12:46:43.76    0.11
                  Sg      46:45.74   -0.38
PKSG  34.2 258    Pg   12:46:47.33    0.50
                  Sg      46:52.10    0.32
CSKK  44.5 256    Sg   12:46:54.23   -0.72
PENC  50.1  42    Pg   12:46:49.69    0.09
                  Sg      46:56.82    0.11
PKST  64.2 250    Sg   12:47:00.58   -0.55
PSZ   94.8  57    Pg   12:46:57.69    0.20
                  Sg      47:09.94   -0.82
```

627.

```
 2019-07-13  time: 13:13:23.72 UTC  ML= 1.1
   lat: 47.354N  lon: 18.176E  h= 10.0 km
                 erh= 2.4km    erz= 1.1km
   nr= 11        gap=134       rms=0.41
   Locality: Nagyveleg
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   6.5  81    Pg   13:13:25.95    0.10
                  Sg      13:27.26   -0.25
PKST  15.0 225    Pg   13:13:26.76   -0.18
                  Sg      13:29.02   -0.43
PKSG  16.8  75    Pg   13:13:27.31    0.10
                  Sg      13:30.07    0.14
MPLH  52.3 247    Pg   13:13:33.43    0.20
A336 115.6  32    Sn   13:13:58.29   -1.33
PKSM 131.8 164    Sn   13:14:03.16   -0.06
VYHS 136.1  21   ePn   13:13:47.50    1.06
                 eSn      14:03.60   -0.56
```

628.

```
 2019-07-14  time:  5:17:04.01 UTC  ML= 1.5
   lat: 46.036N  lon: 16.138E  h=  7.8 km
                 erh= 2.2km    erz= 3.1km
   nr= 15        gap=118       rms=0.48
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PTJ   20.6 223    Pg    5:17:07.62   -0.33
                  Sg      17:10.53   -0.49
ZAG   25.6 206    Pg    5:17:08.90    0.10
                  Sg      17:12.74    0.21
GOLS  39.9 266   iPgD   5:17:11.63    0.36
                 eSg      17:17.76    0.83
GCIS  43.9 245   iPgC   5:17:12.08    0.12
                 eSg      17:18.74    0.57
KOGS  46.6  11    Sg    5:17:18.46   -0.56
DOBS  53.3 284   ePg    5:17:13.93    0.31
CRES  57.8 246    Pg    5:17:14.37   -0.06
                  Sg      17:21.58   -0.97
KOVH 151.9  88    Pn    5:17:29.09    0.11
                  Sn      17:47.16   -1.30
PKSM 194.4  84    Pn    5:17:35.87    1.58
```

629.

```
 2019-07-15  time:  8:20:22.09 UTC  ML= 1.5
   lat: 47.514N  lon: 18.572E  h=  0.0 km
                 erh= 5.2km    erz= 8.8km
   nr= 12        gap=204       rms=1.10
   Locality: Nagyegyháza
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  19.3 225    Pg    8:20:26.04    0.50
                  Sg      20:28.85    0.63
CSKK  28.9 235    Pg    8:20:27.07   -0.18
                  Sg      20:31.66    0.39
SRO   38.6 330    Pg    8:20:29.66    0.68
                  Sg      20:33.84   -0.51
PKST  49.5 235    Pg    8:20:30.88   -0.06
                  Sg      20:37.31   -0.53
A336  86.1  22    Pg    8:20:39.56    2.09
                  Sg      20:47.76   -1.71
VYHS 110.7  10    Pg    8:20:41.53   -0.34
MODS 136.0 315   ePn    8:20:43.60   -2.49
                 eSn      20:58.90   -5.90*
```

630.

```
 2019-07-15  time:  9:01:35.04 UTC  ML= 2.0
   lat: 45.620N  lon: 17.320E  h= 10.0 km
                 erh= 2.5km    erz= 2.5km
   nr= 18        gap=119       rms=0.67
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  78.4  68    Pg    9:01:49.87    0.72
                  Sg      01:59.76   -0.40
KOVH  79.9  49    Pg    9:01:49.16   -0.25
                  Sg      01:59.76   -0.86
BLY   97.4 186    Pg    9:01:52.30   -0.22
                  Sg      02:05.32   -0.84
BEHE 103.5 336    P*    9:01:54.67    1.08
PTJ  110.5 286    Pn    9:01:53.37   -1.20
                  Sn      02:07.87   -1.93
PKSM 121.8  57    Pn    9:01:56.27    0.29
                  Sn      02:11.62   -0.69
MORH 122.2  57    Pn    9:01:55.98   -0.05
                  Sn      02:12.07   -0.34
KOGS 123.9 318    Pn    9:01:56.69    0.46
                  Sn      02:12.42   -0.35
CRES 146.9 279    Pn    9:01:59.88    0.77
                  Sn      02:18.53    0.65
PKST 190.3  17    Pn    9:02:04.73    0.21
```

631.

```
 2019-07-15  time: 14:42:22.33 UTC  ML= 1.7
   lat: 48.572N  lon: 20.805E  h=  1.8 km
                 erh= 1.6km    erz= 2.1km
   nr=  7        gap=163       rms=0.23
   Locality: Tornanádaska
   Comments:

sta   dist azm  phase  hr mn  sec     res
KECS  25.6 247    Pg   14:42:27.16    0.25
                  Sg      42:30.09   -0.39
ABAH  44.4 134    Pg   14:42:30.39    0.13
                  Sg      42:36.51    0.06
PSZ   99.3 223    Sg   14:42:53.69   -0.20
KOLS 115.2  70   eSg   14:42:58.60   -0.34
VYHS 145.7 267    Sn   14:43:06.82    0.04
```

632.

```
 2019-07-16  time:  7:44:41.45 UTC  ML= 1.9
   lat: 47.671N  lon: 18.527E  h=  0.0 km
                 erh= 2.2km    erz= 589km
   nr=  5        gap=123       rms=0.27
   Locality: Héreg
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
SRO   22.5 315    Pg    7:44:45.26   -0.22
                  Sg      44:48.88    0.26
PKSG  32.6 198    Sg    7:44:52.40    0.57
CSKK  39.6 210    Pg    7:44:48.35   -0.18
PSZ  106.1  75    Sg    7:45:15.28    0.10
```

633.

```
 2019-07-16  time: 10:36:48.02 UTC  ML= 1.4
   lat: 47.301N  lon: 18.343E  h=  0.0 km
                 erh= 2.7km    erz= 614km
   nr=  7        gap=150       rms=0.42
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   9.3 318    Pg   10:36:49.43   -0.25
                  Sg      36:50.60   -0.38
PKSG  10.8  20    Pg   10:36:50.09    0.15
                  Sg      36:51.82    0.38
PKST  23.8 259    Pg   10:36:52.36    0.09
                  Sg      36:56.10    0.52
PKSM 123.2 169    Sg   10:37:25.35   -1.82
```

634.

```
 2019-07-17  time:  6:31:48.55 UTC  ML= 1.9
   lat: 47.353N  lon: 18.433E  h=  0.0 km
                 erh= 1.6km    erz= 706km
   nr= 13        gap=105       rms=0.60
   Locality: Gánt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   5.4 324    PgU   6:31:49.49   -0.03
                  Sg      31:50.10   -0.18
CSKK  13.1 275    Pg    6:31:50.90    0.01
                  Sg      31:52.96    0.24
PKST  31.9 251    Pg    6:31:54.97    0.72
                  Sg      31:58.73    0.04
MPLH  70.6 253    Sg    6:32:10.98   -0.02
PKB5  87.3 165    Sg    6:32:17.41    1.11
A336 106.7  23    Sg    6:32:22.08   -0.39
PSZ  126.6  60    Sg    6:32:29.31    0.53
MORH 127.4 173    Sg    6:32:28.00   -1.04
PKSM 127.8 173    Sg    6:32:28.05   -1.12
VYHS 130.5  13    Sg    6:32:28.76   -1.26
```

635.

```
 2019-07-17  time:  6:42:37.41 UTC  ML= 1.5
   lat: 47.303N  lon: 17.656E  h=  0.0 km
                 erh= 1.5km    erz= 5.9km
   nr=  8        gap=142       rms=0.40
   Locality: Bakonykoppány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  17.1 211    Pg    6:42:40.36   -0.11
                  Sg      42:43.23    0.38
EGYH  27.6 298    Pg    6:42:41.87   -0.46
                  Sg      42:46.74    0.57
PKST  29.1 100    Pg    6:42:42.72    0.12
                  Sg      42:47.04    0.39
```

```
PKSG  56.4  80    Sg    6:42:55.21   -0.14
MORH 142.5 148    Sn    6:43:19.76   -1.79
```

636.

```
 2019-07-17  time:  7:15:30.26 UTC  ML= 0.7
   lat: 48.704N  lon: 18.858E  h=  0.0 km
                 erh= 3.1km    erz= 539km
   nr=  6        gap=218       rms=0.31
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  23.4 184    Pg    7:15:34.72    0.28
                  Sg      15:37.25   -0.45
A336  53.4 169    Sg    7:15:47.30    0.07
LANS  66.8  42    Sg    7:15:51.31   -0.19
PENC 106.3 163    Sg    7:16:03.68   -0.38
PSZ  116.4 139    Sg    7:16:07.64    0.38
```

637.

```
 2019-07-17  time:  8:10:30.95 UTC  ML= 2.4
   lat: 48.205N  lon: 21.217E  h=  0.0 km
                 erh= 1.7km    erz= 2.0km
   nr=  8        gap=108       rms=0.39
   Locality: Rátka
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  10.2   9    PgU   8:10:32.97    0.20
                  Sg      10:33.75   -0.44
KECS  62.4 300    Sg    8:10:50.80    0.01
PSZ  103.6 252    Pg    8:10:49.62    0.17
KOLS 112.4  44    Pg    8:10:51.55    0.54
                  Sg      11:05.86   -0.80
LANS 166.3 309   eSn    8:11:19.90   -0.47
DRGR 193.3 144    Sn    8:11:26.15   -0.22
```

638.

```
 2019-07-17  time:  8:13:39.99 UTC  ML= 1.6
   lat: 48.342N  lon: 21.571E  h=  0.0 km
                 erh= 1.7km    erz= 2.1km
   nr=  7        gap=117       rms=0.66
   Locality: Károlyfalva
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  25.1 258    Pg    8:13:45.20    0.73
                  Sg      13:48.09    0.12
KECS  81.9 281    Sg    8:14:05.23   -0.78
KOLS  83.7  38    Sg    8:14:06.64    0.05
PSZ  133.4 249    Sn    8:14:20.50   -1.61
DRGR 192.5 154    Pn    8:14:11.06    0.04
                  Sn      14:35.31    0.08
```

639.

```
 2019-07-17  time:  9:05:25.25 UTC  ML= 1.3
   lat: 48.565N  lon: 20.719E  h=  0.0 km
                 erh= 2.0km    erz= 3.0km
   nr= 14        gap= 93       rms=0.71
   Locality: Komjáti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  19.5 242    Pg    9:05:29.12    0.39
                  Sg      05:31.63    0.18
ABAH  48.7 128    Pg    9:05:33.74   -0.21
                  Sg      05:40.26   -0.48
PSZ   94.4 220    Sg    9:05:55.73    0.46
NIE   99.5 343    Pg    9:05:43.78    0.76
                  Sg      05:56.43   -0.46
LANS 112.6 305   ePg    9:05:44.70   -0.66
                 eSg      05:58.90   -2.14
KOLS 121.4  70   ePg    9:05:48.50    1.57
                 eSg      06:01.90   -1.93
A336 132.6 254    Sn    9:06:06.67   -0.53
VYHS 139.3 267    Pn    9:05:49.54   -0.11
                  Sn      06:07.78   -0.91
```

640.

```
 2019-07-18  time:  7:12:05.53 UTC  ML= 1.4
   lat: 48.569N  lon: 19.361E  h=  0.0 km
                 erh= 3.0km    erz= 667km
   nr=  8        gap=199       rms=0.47
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  39.6 258    Pg    7:12:12.77    0.17
                  Sg      12:17.24   -0.88
A336  45.9 216    Pg    7:12:13.99    0.26
                  Sg      12:20.02   -0.10
PSZ   82.5 151    Pg    7:12:20.83    0.57
                  Sg      12:31.01   -0.73
KECS  83.7  97    Pg    7:12:20.60    0.13
                  Sg      12:31.32   -0.80
```

641.

```
 2019-07-18  time:  7:24:53.05 UTC  ML= 1.0
   lat: 46.129N  lon: 18.048E  h=  0.0 km
                 erh= 1.8km    erz= 257km
   nr=  8        gap=289       rms=0.18
   Locality: Hetvehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   6.0 139    Pg    7:24:54.01   -0.12
                  Sg      24:55.16    0.19
PKSV  31.0 149    Pg    7:24:58.64    0.04
                  Sg      25:01.98   -0.94
PKSM  46.7  79    Pg    7:25:01.57    0.17
                  Sg      25:08.06    0.16
MORH  47.0  78    Pg    7:25:01.37   -0.08
                  Sg      25:07.80   -0.20
```

642.

```
 2019-07-18  time:  9:18:34.73 UTC  ML= 1.9
   lat: 46.951N  lon: 22.247E  h=  0.0 km
                 erh= 2.2km    erz= 2.2km
   nr= 25        gap=123       rms=0.80
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  39.6 117    PgU   9:18:42.39    0.58
                  Sg      18:47.27   -0.05
MARR  73.3 115    PgD   9:18:47.88    0.06
                  Sg      18:57.20   -0.82
SIRR  88.3 211    PgD   9:18:51.60    1.10
                  Sg      19:01.60   -1.21
CJR  106.5 104    PgC   9:18:53.36   -0.38
                  Sg      19:06.00   -2.57
BMR  124.0  50    PgC   9:18:57.24    0.37
DEV  129.0 157    PgC   9:18:58.19    0.42
TRPA 132.9  10    Pn    9:18:57.18   -1.16
                  Sn      19:15.98   -0.77
SURR 133.4 184    PnD   9:18:58.56    0.16
                  Sn      19:15.10   -1.77
BZS  156.1 198    Pn    9:19:01.42    0.19
                  Sn      19:21.22   -0.68
ABAH 167.6 333    Pn    9:19:01.98   -0.68
                  Sn      19:23.90   -0.55
GZR  178.0 167    PnD   9:19:04.49    0.54
```

```
                  Sn      19:26.60   -0.15
HERR 230.5 177    PnD   9:19:11.71    1.20
BURA 236.5  72    PnC   9:19:12.75    1.49
                  Sn      19:40.30    0.56
MDVR 244.7 190    PnC   9:19:12.78    0.50
                  Sn      19:41.70    0.13
```

643.

```
 2019-07-18  time: 10:10:49.88 UTC  ML= 1.4
   lat: 47.863N  lon: 19.160E  h=  0.0 km
                erh= 3.2km    erz= 564km
   nr=  8       gap=210       rms=0.40
   Locality: Ősagárd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  12.2 131    Pg   10:10:51.83   -0.22
                  Sg      10:53.71   -0.04
A336  42.9 344    Pg   10:10:57.27   -0.27
                  Sg      11:03.53    0.02
PSZ   55.3  84    Pg   10:10:59.97    0.21
                  Sg      11:07.30   -0.16
VYHS  74.2 341    Pg   10:11:03.94    0.81
                  Sg      11:12.79   -0.67
```

644.

```
 2019-07-18  time: 11:58:11.41 UTC  ML= 1.7
   lat: 45.993N  lon: 16.033E  h=  0.6 km
                erh= 0.7km    erz=11.4km
   nr=  6       gap=302       rms=0.14
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PTJ   11.9 209    Pg   11:58:13.43   -0.11
                  Sg      58:14.70   -0.50
ZAG   18.5 189    Pg   11:58:14.79    0.07
                  Sg      58:17.35    0.04
CRES  48.4 247    Pg   11:58:20.15    0.09
                  Sg      58:26.90    0.09
```

645.

```
 2019-07-19  time:  8:13:39.72 UTC  ML= 1.2
   lat: 47.194N  lon: 18.311E  h=  0.0 km
                erh= 1.4km    erz= 2.5km
   nr= 13       gap=111       rms=0.42
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  19.2 349    Pg    8:13:43.10   -0.05
                  Sg      13:44.99   -0.82
PKST  22.1 289    Pg    8:13:43.64   -0.04
                  Sg      13:46.29   -0.47
PKSG  22.8  15    Pg    8:13:43.90    0.11
                  Sg      13:47.21    0.24
MPLH  58.5 267    Sg    8:13:58.96    0.63
MORH 111.7 167    Sg    8:14:14.73   -0.51
PKSM 112.1 167    Sg    8:14:15.00   -0.36
KOVH 124.0 187    Sg    8:14:19.21    0.07
PSZ  143.8  56    Pn    8:14:05.37    0.68
                  Sn      14:23.44   -0.73
VYHS 149.8  15    Pn    8:14:05.79    0.36
```

646.

```
 2019-07-19  time:  8:31:40.29 UTC  ML= 2.1
   lat: 48.237N  lon: 21.285E  h=  0.0 km
                erh= 2.3km    erz= 2.6km
   nr= 18       gap=105       rms=0.86
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   7.4 333    Pg    8:31:41.83    0.23
                  Sg      31:42.30   -0.33
HU02  57.9 257    Pg    8:31:50.68    0.05
                  Sg      31:58.43   -0.27
KECS  65.2 295    Pg    8:31:51.63   -0.31
                  Sg      31:59.81   -1.21
TRPA  94.1  97    Sg    8:32:08.88   -1.31
KOLS 106.4  43    Sg    8:32:14.26    0.16
PSZ  109.5 251    Pg    8:32:00.09    0.25
                  Sg      32:13.91   -1.18
STHS 131.2 359   eSn    8:32:20.70   -1.23
NIE  149.5 332    Pn    8:32:08.24    2.27
                  Sn      32:26.49    0.49
A336 169.8 270    Sn    8:32:30.67    0.18
VYHS 183.7 279    Sn    8:32:34.27    0.70
KWP  186.8  34    Pn    8:32:10.84    0.22
DRGR 193.3 146    Pn    8:32:13.22    1.79
                  Sn      32:34.79   -0.93
```

647.

```
 2019-07-19  time: 10:18:53.80 UTC  ML= 1.9
   lat: 45.974N  lon: 22.687E  h=  3.1 km
                erh= 2.0km    erz= 2.7km
   nr= 28       gap= 69       rms=1.06
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
DEV   19.6 121    PgC  10:18:57.83    0.49
                  Sg      19:00.00   -0.10
SURR  50.1 241    PgC  10:19:03.66    0.90
                  Sg      19:09.30   -0.45
GZR   64.9 174    PgC  10:19:05.83    0.42
                  Sg      19:13.90   -0.57
MARR  84.8  23    PgC  10:19:09.32    0.37
                  Sg      19:19.00   -1.77
SIRR  85.9 292    PgC  10:19:09.46    0.32
                  Sg      19:20.50   -0.61
DRGR  90.9   1    Pg   10:19:10.68    0.64
                  Sg      19:20.93   -1.78
BZS   92.2 244    Pg   10:19:10.85    0.57
                  Sg      19:20.45   -2.69
LOT  102.6 125    PgD  10:19:12.39    0.26
                  Sg      19:24.50   -1.93
CJR  108.0  40    PgD  10:19:13.23    0.13
                  Sg      19:27.20   -0.95
HERR 123.3 190    PnC  10:19:15.95    0.14
                  Sn      19:30.70   -2.28
TNR  128.4 106    PnC  10:19:16.29   -0.15
                  Sn      19:32.40   -1.69
MDVR 153.0 210    PnC  10:19:20.31    0.80
                  Sn      19:40.10    0.54
ARCR 177.8  46    Pn   10:19:25.00    2.40
                  Sn      19:47.70    2.64
VOIR 193.4 108    PnC  10:19:25.87    1.32
                  Sn      19:48.50   -0.03
```

648.

```
 2019-07-19  time: 13:06:01.54 UTC  ML= 1.4
   lat: 46.132N  lon: 21.708E  h= 10.0 km
                 erh= 3.9km    erz= 2.7km
   nr= 13        gap= 92       rms=0.83
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
SIRR  15.6 346    PgC  13:06:05.15    0.30
                  Sg      06:07.50    0.07
BZS   57.7 187    Pg   13:06:11.38   -0.61
                  Sg      06:18.50   -1.65
DRGR 106.4  46    P*   13:06:20.74    0.20
                  S*      06:33.77   -1.59
GZR  116.8 135    PnC  13:06:22.67    0.81
                  Sn      06:37.40   -0.31
MARR 124.2  61    PnD  13:06:23.75    0.96
                  Sn      06:38.50   -0.86
MDVR 150.0 180    PnC  13:06:27.34    1.33
                  Sn      06:45.80    0.71
PKB3 196.4 280    Sn   13:06:54.99   -0.39
```

649.

```
 2019-07-19  time: 23:28:30.32 UTC  ML= 0.1
   lat: 47.377N  lon: 18.140E  h=  4.3 km
                 erh= 1.9km    erz= 2.4km
   nr=  6        gap=234       rms=0.06
   Locality: Nagyveleg
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   9.2 100    Pg   23:28:32.24    0.10
                  Sg      28:33.54   -0.02
PKST  15.4 211    PgD  23:28:33.15   -0.02
                  Sg      28:35.36   -0.03
PKSG  19.0  85    Pg   23:28:33.80    0.00
                  Sg      28:36.39   -0.12
```

650.

```
 2019-07-20  time: 15:50:44.60 UTC  ML= 1.2
   lat: 47.462N  lon: 18.836E  h= 10.0 km
                 erh= 2.0km    erz= 2.3km
   nr= 16        gap=104       rms=0.66
   Locality: Biatorbágy
   Comments:

sta   dist azm  phase  hr mn  sec     res
BUD   14.4  80    Pg   15:50:48.10    0.37
                  Sg      50:49.85   -0.32
PKSG  34.5 257    Pg   15:50:51.62    0.60
                  Sg      50:55.99   -0.03
CSKK  44.8 256    Sg   15:50:59.10   -0.09
PENC  49.6  43    Pg   15:50:54.01    0.38
PKST  64.6 250    Sg   15:51:04.84   -0.55
A336  86.6   8    Pg   15:51:00.42    0.25
                  Sg      51:10.99   -1.32
PSZ   94.3  57    Pg   15:51:01.57    0.04
                  Sg      51:13.82   -0.92
PKB5  96.7 185    Sg   15:51:14.30   -1.20
PKS9 106.1 204    P*   15:51:03.90    0.35
                  S*      51:17.83   -0.51
VYHS 114.7   0   ePn   15:51:06.90    2.23
                 eSn      51:19.10   -1.22
```

651.

```
 2019-07-20  time: 19:43:50.57 UTC  ML= 0.0
   lat: 47.364N  lon: 18.233E  h=  2.6 km
                 erh= 2.3km    erz= 0.7km
   nr=  6        gap=203       rms=0.04
   Locality: Mór
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   2.1  93    Pg   19:43:51.23    0.07
                  Sg      43:51.55   -0.08
PKSG  12.3  76    Pg   19:43:52.81   -0.01
                  Sg      43:54.56   -0.01
PKST  19.0 232    Pg   19:43:53.99   -0.01
                  Sg      43:56.67   -0.01
```

652.

```
 2019-07-22  time:  7:12:37.82 UTC  ML= 1.7
   lat: 47.951N  lon: 20.064E  h=  0.0 km
                 erh= 2.7km    erz= 557km
   nr=  9        gap=187       rms=0.42
   Locality: Mátraderecske
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   13.1 254    Pg    7:12:40.45    0.28
                  Sg      12:42.64    0.64
PENC  61.2 253    Pg    7:12:48.74    0.00
                  Sg      12:56.63   -0.63
KECS  67.0  28    Sg    7:12:59.43    0.31
ABAH  95.6  66    Pg    7:12:54.49   -0.40
                  Sg      13:08.23    0.02
VYHS 109.4 304    Pg    7:12:57.55    0.19
                  Sg      13:11.03   -1.57
```

653.

```
 2019-07-22  time:  7:28:46.10 UTC  ML= 1.6
   lat: 48.312N  lon: 18.922E  h=  0.0 km
                 erh= 4.1km    erz= 6.6km
   nr= 13        gap=118       rms=1.01
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A336  10.5 147    PgU   7:28:48.70    0.72
                  Sg      28:50.29    0.85
VYHS  21.2 343    Pg    7:28:50.70    0.82
                  Sg      28:53.80    0.98
PENC  63.9 155    Pg    7:28:57.91    0.39
                  Sg      29:06.76    0.34
PSZ   84.7 121    Pg    7:29:01.83    0.61
                  Sg      29:11.83   -1.18
KECS 117.4  81   ePg    7:29:05.40   -1.66
                 eSg      29:18.70   -4.70*
MODS 122.1 273   ePg    7:29:06.60   -1.30
                 eSg      29:22.20   -2.71
ABAH 172.0  91    Sn    7:29:36.19   -0.60
```

654.

```
 2019-07-22  time:  9:29:24.95 UTC  ML= 1.5
   lat: 48.838N  lon: 20.083E  h=  0.0 km
                 erh= 2.9km    erz= ***km
   nr= 12        gap=127       rms=0.84
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  49.4 143    Pg    9:29:33.33   -0.43
                  Sg      29:39.18   -1.46
NIE   66.8  15    Sg    9:29:45.22   -0.95
```

```
VYHS  99.5 247    Pg    9:29:43.42    0.71
                  Sg      29:55.02   -1.54
PSZ  103.2 188    Pg    9:29:44.41    1.03
                  Sg      29:56.62   -1.13
ABAH 104.5 125    Pg    9:29:44.45    0.84
A336 104.5 230    Pg    9:29:43.97    0.36
                  Sg      29:57.58   -0.59
STHS 106.4  53   ePg    9:29:44.00    0.05
                 eSg      29:59.40    0.63
```

655.

```
 2019-07-22  time: 10:46:17.42 UTC  ML= 1.7
   lat: 47.326N  lon: 18.439E  h=  0.0 km
                 erh= 2.0km    erz= 3.6km
   nr= 15        gap=114       rms=0.74
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.2 333    Pg   10:46:19.15    0.26
                  Sg      46:19.48   -0.55
CSKK  14.1 287    Pg   10:46:20.67    0.73
                  Sg      46:22.43    0.52
PKST  31.5 256    Pg   10:46:23.55    0.50
                  Sg      46:27.19   -0.25
MPLH  70.3 256    Sg   10:46:38.64   -1.12
A336 109.3  23    Sg   10:46:51.46   -0.69
MORH 124.4 173    Sg   10:46:56.65   -0.31
PKSM 124.8 173    Sg   10:46:56.65   -0.44
PSZ  127.7  59    Pg   10:46:41.18    0.95
                  Sg      46:57.37   -0.64
VYHS 133.2  13    Pn   10:46:41.79    0.72
                  Sn      46:58.13   -1.38
MODS 145.4 323   ePn   10:46:41.30   -1.28
                 eSn      46:57.50   -4.71*
```

656.

```
 2019-07-22  time: 23:14:05.00 UTC  ML= 2.2
   lat: 47.460N  lon: 19.869E  h= 12.2 km
                 erh= 1.2km    erz= 1.0km
   nr= 47        gap= 38       rms=0.58
   Locality: Jászberény
   Comments: felt 3.5 EMS

sta   dist azm  phase  hr mn  sec     res
PSZ   51.0   2    Pg   23:14:13.92   -0.44
                  Sg      14:20.99   -0.66
HU03  53.3 338    Pg   23:14:15.12    0.36
PENC  57.4 310    Pg   23:14:16.15    0.67
PKSN  62.6 180    Pg   23:14:17.19    0.80
BUD   63.7 272    Sg   23:14:24.22   -1.41
PKS7  70.6 229    Pg   23:14:17.77   -0.01
                  Sg      14:27.32   -0.44
A270  76.9 304    Pg   23:14:18.34   -0.56
HU04  77.9 202    Pg   23:14:19.58    0.51
                  Sg      14:30.49    0.44
HU02  88.5  34    Pg   23:14:19.74   -1.21
HU05  96.1  84    P*   23:14:22.21   -0.02
                  S*      14:35.08   -0.59
PKS6  98.4 194    P*   23:14:22.61    0.04
                  S*      14:35.22   -1.06
PKB2  99.5 209    P*   23:14:22.66   -0.08
                  S*      14:35.77   -0.81
A336 107.8 323    Pn   23:14:24.26    0.34
PKSG 111.8 266    Pn   23:14:24.51    0.10
                  Sn      14:38.83   -0.73
PKS2 118.6 205    Pn   23:14:25.48    0.21
                  Sn      14:40.38   -0.70
A267 119.6 241    Pn   23:14:25.88    0.49
CSKK 121.9 265    Pn   23:14:26.21    0.54
                  Sn      14:40.97   -0.82
KECS 122.7  22    Pn   23:14:26.05    0.27
                  Sn      14:41.31   -0.67
PKB3 126.1 204    Pn   23:14:26.89    0.69
PKB5 129.1 222    Pn   23:14:27.04    0.47
                  Sn      14:43.17   -0.23
A338 129.4 298    Pn   23:14:27.94    1.33
ABAH 138.4  48    Pn   23:14:27.79    0.06
                  Sn      14:45.52    0.06
VYHS 138.4 326    Pn   23:14:28.39    0.66
PKST 140.4 261    Pn   23:14:28.45    0.47
                  Sn      14:45.31   -0.59
PKS9 155.0 231    Pn   23:14:29.73   -0.07
MORH 166.9 214    Pn   23:14:30.52   -0.77
PKSM 167.4 214    Pn   23:14:30.53   -0.82
KOVH 203.7 222    Pn   23:14:35.26   -0.62
DRGR 228.1 109    Pn   23:14:38.82   -0.10
STHS 240.2  25   ePn   23:14:42.50    2.08
                 eSn      15:10.00    1.95*
KOLS 242.4  48   eSn   23:15:08.30   -0.26
BZS  244.9 147    Pn   23:14:41.18    0.17
FRGS 258.5 181    Pn   23:14:43.01    0.31
KRLC 368.9 322   ePn   23:14:59.70    3.23*
BBLS 400.9 185    Pn   23:15:01.11    0.65*
```

657.

```
 2019-07-22  time: 23:15:06.12 UTC  ML= 1.5
   lat: 47.502N  lon: 19.804E  h= 10.0 km
                 erh= 2.0km    erz= 1.4km
   nr= 19        gap=125       rms=0.56
   Locality: Jászfelsőszentgyörgy
   Comments:

sta   dist azm  phase  hr mn  sec     res
PSZ   46.8   8    Pg   23:15:15.00    0.34
                  Sg      15:21.30   -0.03
PKSN  67.4 176    Sg   23:15:27.39   -0.40
PKS7  70.2 224    Pg   23:15:18.58   -0.21
                  Sg      15:28.37   -0.29
PKSG 107.3 263    P*   23:15:25.07   -0.19
                  S*      15:39.33   -0.86
CSKK 117.5 262    Sn   23:15:42.34   -0.10
KECS 120.4  25    Sn   23:15:42.19   -0.89
PKS2 121.0 202    Pn   23:15:27.50    0.54
                  Sn      15:42.93   -0.29
PKB5 129.5 219    Pn   23:15:28.01   -0.01
                  Sn      15:44.05   -1.06
VYHS 131.8 327    Pn   23:15:28.88    0.56
PKST 136.4 259    Pn   23:15:30.01    1.13
                  Sn      15:45.96   -0.67
ABAH 139.0  51    Sn   23:15:46.77   -0.44
MORH 168.2 212    Sn   23:15:55.06    1.37
PKSM 168.6 212    Sn   23:15:54.44    0.64
```

658.

```
 2019-07-23  time:  8:10:51.76 UTC  ML= 1.3
   lat: 45.855N  lon: 18.409E  h=  0.0 km
                 erh= 1.1km    erz= 169km
   nr=  8        gap=263       rms=0.12
   Locality: Nagyharsány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSV  12.8 287    Pg    8:10:53.98   -0.06
                  Sg      10:54.86   -0.96
KOVH  35.3 317    Pg    8:10:58.19    0.12
                  Sg      11:02.96   -0.03
PKSM  43.6  24    Pg    8:10:59.59    0.05
                  Sg      11:05.58   -0.02
MORH  44.0  24    Pg    8:10:59.66    0.03
                  Sg      11:05.63   -0.13
```

659.

```
 2019-07-24  time:  5:53:35.37 UTC  ML= 1.2
   lat: 47.883N  lon: 19.397E  h=  0.0 km
                 erh= 1.0km    erz= 255km
   nr=  5        gap=136       rms=0.12
   Locality: Bercel
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  13.4 220    Pg    5:53:37.75   -0.01
                  Sg      53:39.66    0.03
PSZ   37.4  84    Pg    5:53:41.97   -0.09
                  Sg      53:47.64    0.37
A336  49.0 323    Sg    5:53:50.90   -0.03
```

660.

```
 2019-07-24  time:  7:23:01.31 UTC  ML= 1.6
   lat: 47.323N  lon: 18.419E  h=  0.0 km
                 erh= 5.6km    erz= ***km
   nr=  6        gap=188       rms=0.69
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.0 344    PgU   7:23:03.00    0.26
                  Sg      23:03.36   -0.48
CSKK  12.8 291    Sg    7:23:04.25   -1.13
PKST  29.9 256    Pg    7:23:07.61    0.95
MORH 124.3 172    Sg    7:23:40.34   -0.47
PKSM 124.7 172    Sg    7:23:40.49   -0.45
```

661.

```
 2019-07-24  time:  9:20:10.47 UTC  ML= 0.7
   lat: 47.220N  lon: 18.228E  h=  0.0 km
                 erh= 3.4km    erz= 415km
   nr=  6        gap=254       rms=0.25
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  15.3 287    Pg    9:20:13.25    0.06
                  Sg      20:14.80   -0.51
CSKK  16.1   9    Pg    9:20:13.63    0.28
                  Sg      20:15.87    0.28
PKSG  22.8  33    Pg    9:20:14.33   -0.20
                  Sg      20:17.57   -0.13
```

662.

```
 2019-07-25  time:  8:29:33.67 UTC  ML= 1.6
   lat: 48.446N  lon: 19.122E  h=  0.0 km
                 erh= 4.0km    erz= ***km
   nr=  8        gap=164       rms=0.89
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  21.8 284    Pg    8:29:38.36    0.79
                  Sg      29:39.68   -0.93
A336  25.4 201    Pg    8:29:38.56    0.36
                  Sg      29:40.09   -1.65
PENC  73.9 171    Sg    8:29:58.05    0.90
PSZ   82.1 136    Sg    8:29:58.26   -1.50
KECS 100.9  88   ePg    8:29:52.00    0.31
                 eSg      30:05.80    0.06
```

663.

```
 2019-07-25  time:  8:51:41.66 UTC  ML= 1.6
   lat: 47.870N  lon: 19.181E  h=  0.0 km
                 erh= 2.7km    erz= 500km
   nr=  7        gap=200       rms=0.34
   Locality: Ősagárd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  11.6 140    Pg    8:51:43.62   -0.12
                  Sg      51:45.00   -0.36
A336  42.6 341    Pg    8:51:49.32    0.06
                  Sg      51:54.97   -0.22
PSZ   53.6  84    Sg    8:51:59.09    0.39
VYHS  73.9 340    Pg    8:51:55.33    0.46
                  Sg      52:04.49   -0.68
```

664.

```
 2019-07-27  time:  6:29:07.78 UTC  ML= 1.3
   lat: 46.110N  lon: 18.043E  h=  0.0 km
                 erh= 3.2km    erz= 637km
   nr= 11        gap=232       rms=0.51
   Locality: Bükkösd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   5.0 119    Pg    6:29:08.61   -0.07
                  Sg      29:10.03    0.66
PKSV  29.5 147    Pg    6:29:12.97   -0.07
                  Sg      29:17.26    0.11
PKSM  47.6  76    Pg    6:29:15.89   -0.39
                  Sg      29:22.40   -0.51
MORH  47.9  76    Pg    6:29:16.09   -0.24
                  Sg      29:22.47   -0.54
PKS9  56.0  19    Sg    6:29:24.96   -0.63
PKB5  75.8  45    Pg    6:29:22.28    0.96
                  Sg      29:32.76    0.88
```

665.

```
 2019-07-28  time:  7:23:02.74 UTC  ML= 1.9
   lat: 46.222N  lon: 16.648E  h=  6.7 km
                 erh= 2.0km    erz= 1.9km
   nr= 18        gap=182       rms=0.50
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  29.3  20    Pg    7:23:08.02   -0.10
                  Sg      23:09.70   -2.60*
KOGS  39.7 309    Pg    7:23:10.61    0.68
                  Sg      23:14.93   -0.60
PTJ   64.3 236    Sg    7:23:22.98   -0.30
ZAG   66.9 229    Sg    7:23:24.03   -0.07
A263  69.2  48    Pg    7:23:14.75   -0.42
A262  72.0 353    Pg    7:23:16.36    0.70
                  Sg      23:25.79    0.05
GOLS  82.5 254   iPg    7:23:17.49   -0.04
                 eSg      23:28.76   -0.31
DOBS  91.4 265   iPg    7:23:18.83   -0.28
CRES 102.2 245    Pg    7:23:21.13    0.10
                  Sg      23:34.78   -0.52
ARSA 143.1 323    Pn    7:23:27.34    0.57
                  Sn      23:44.23   -1.28
RONA 166.5 351    Pn    7:23:30.58    0.89
                  Sn      23:50.54   -0.16
```

666.

```
 2019-07-28  time: 22:59:04.13 UTC  ML= 1.6
   lat: 47.921N  lon: 16.991E  h= 10.0 km
                 erh= 2.4km    erz= 2.3km
   nr= 24        gap= 81       rms=0.92
   Locality: Austria
   Comments:

sta   dist azm  phase  hr mn  sec     res
MODS  54.6  23   ePg   22:59:11.10   -2.95
RONA  57.6 245    Pg   22:59:14.65    0.09
                  Sg      59:21.41   -1.29
EGYH  61.6 155    Pg   22:59:15.98    0.71
                  Sg      59:23.55   -0.41
CONA  84.4 271    Pg   22:59:19.38    0.07
                  Sg      59:29.69   -1.46
SRO   99.7  97   ePg   22:59:23.10    1.09
                 eSg      59:35.10   -0.86
PKST 107.6 133    Pn   22:59:23.61    0.31
                  Sn      59:36.56   -1.69
PKSG 120.5 119    Pn   22:59:24.56   -0.35
                  Sn      59:39.34   -1.77
ARSA 133.2 236    Pn   22:59:28.01    1.51
                  Sn      59:43.60   -0.34
KRUC 134.3 341    Pn   22:59:26.88    0.26
                  Sn      59:42.81   -1.36
VYHS 151.2  65    Sn   22:59:47.62   -0.31
VRAC 157.0 349    Pn   22:59:30.05    0.59
                  Sn      59:48.37   -0.85
TREC 188.8 324   eSn   22:59:56.20   -0.07
MOA  204.0 268    Pn   22:59:36.33    1.01
MORC 210.3  11    Pn   22:59:37.70    1.60
                  Sn   23:00:01.27    0.22
```

667.

```
 2019-07-29  time:  7:36:59.29 UTC  ML= 2.2
   lat: 47.072N  lon: 17.857E  h=  0.0 km
                 erh= 3.0km    erz= 489km
   nr=  7        gap=221       rms=0.34
   Locality: Nemesvámos
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
TIH   19.3 172    Pg    7:37:02.45   -0.29
                  Sg      37:05.63    0.21
PKST  24.8  33    Pg    7:37:03.98    0.26
                  Sg      37:07.79    0.62
CSKK  44.6  43    Pg    7:37:07.26    0.01
                  Sg      37:12.73   -0.72
PKB5  85.5 128    Sg    7:37:26.32   -0.14
```

668.

```
 2019-07-29  time: 10:29:00.30 UTC  ML= 1.5
   lat: 47.085N  lon: 17.890E  h=  0.0 km
                 erh= 2.9km    erz= 599km
   nr= 12        gap=210       rms=0.50
   Locality: Veszprém
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
TIH   20.6 179    Pg   10:29:03.99    0.01
                  Sg      29:07.30    0.46
PKST  22.2  30    Pg   10:29:04.17   -0.10
                  Sg      29:07.63    0.26
CSKK  41.8  42    Pg   10:29:07.71   -0.05
                  Sg      29:12.89   -0.69
PKB5  84.5 130    Pg   10:29:16.29    0.91
                  Sg      29:27.54    0.39
MORH 112.6 149    Pg   10:29:20.27   -0.13
                  Sg      29:35.03   -1.06
PKSM 112.8 149    Pg   10:29:20.47    0.02
                  Sg      29:34.93   -1.24
```

669.

```
 2019-07-30  time:  6:21:43.50 UTC  ML= 0.8
   lat: 47.402N  lon: 18.272E  h= 10.0 km
                 erh= 2.0km    erz= 1.5km
   nr=  8        gap=229       rms=0.24
   Locality: Pusztavám
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   4.4 191    Pg    6:21:45.65    0.19
                  Sg      21:46.53   -0.45
PKSG   9.0  97    Pg    6:21:45.97    0.06
                  Sg      21:47.77   -0.02
PKST  24.0 228    Pg    6:21:48.05   -0.10
                  Sg      21:51.88    0.11
PKS9  90.6 180    Sg    6:22:12.71    0.22
PKSM 135.3 168    Sn    6:22:22.63   -1.15
```

670.

```
 2019-07-30  time:  9:07:34.13 UTC  ML= 1.3
   lat: 47.187N  lon: 18.308E  h=  0.0 km
                 erh= 1.3km    erz= 152km
   nr=  6        gap=276       rms=0.09
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  19.9 350    Pg    9:07:37.74    0.05
                  Sg      07:40.18   -0.28
PKST  22.2 291    Pg    9:07:38.10    0.00
                  Sg      07:41.22    0.02
PKSG  23.6  15    Pg    9:07:38.30   -0.05
                  Sg      07:41.77    0.13
```

671.

```
 2019-07-30  time:  9:32:34.35 UTC  ML= 1.4
   lat: 48.604N  lon: 20.736E  h=  0.0 km
                 erh= 1.3km    erz= 2.0km
   nr= 10        gap=117       rms=0.34
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.8 234    Pg    9:32:38.76    0.34
                  Sg      32:41.27   -0.33
ABAH  50.5 133    Pg    9:32:43.33   -0.04
                  Sg      32:50.06   -0.35
STHS  97.8  22   ePg    9:32:51.90    0.10
                 eSg      33:03.50   -1.92*
PSZ   98.5 219    Pg    9:32:52.27    0.33
                  Sg      33:05.47   -0.20
VYHS 140.8 265    Pn    9:32:59.05    0.11
                  Sn      33:17.12   -1.00
```

672.

```
 2019-07-31  time:  6:46:21.40 UTC  ML= 2.0
   lat: 47.332N  lon: 18.465E  h=  0.0 km
                 erh= 3.2km    erz= 4.9km
   nr=  8        gap=162       rms=0.44
   Locality: Lovasberény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.7 320    PgU   6:46:23.03    0.08
                  Sg      46:23.36   -0.79
CSKK  15.8 282    Pg    6:46:24.53    0.31
                  Sg      46:26.09   -0.34
PKST  33.6 256    Pg    6:46:27.94    0.55
                  Sg      46:31.97   -0.10
```

```
PKSM 125.3 174    Sg    6:47:00.39   -0.84
VYHS 132.1  12    Sn    6:47:03.15   -0.09
```

673.

```
 2019-07-31  time:  6:47:09.55 UTC  ML= 1.2
   lat: 47.411N  lon: 18.344E  h=  0.0 km
                 erh= 9.6km    erz= 846km
   nr=  5        gap=247       rms=0.42
   Locality: Gánt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   4.1 121    Pg    6:47:10.09   -0.19
                  Sg      47:10.72   -0.14
CSKK   8.2 230    Sg    6:47:11.40   -0.76
PKST  28.9 234    Pg    6:47:14.99    0.29
                  Sg      47:19.41    0.69
```

674.

```
 2019-07-31  time:  8:17:47.73 UTC  ML= 2.0
   lat: 47.335N  lon: 18.397E  h=  0.0 km
                 erh= 2.1km    erz= 4.4km
   nr= 14        gap=103       rms=0.78
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   6.3 355    PgU   8:17:48.90    0.04
                  Sg      17:49.73   -0.01
CSKK  10.8 287    Pg    8:17:50.44    0.78
                  Sg      17:51.06   -0.11
PKST  28.7 253    Sg    8:17:56.25   -0.61
PKB5  86.2 163    Sg    8:18:16.31    1.19
A336 109.6  24    Pg    8:18:07.94    0.65
                  Sg      18:21.18   -1.38
MORH 125.8 171    Sg    8:18:26.66   -1.06
PKSM 126.2 172    Sg    8:18:26.51   -1.34
PSZ  129.9  60    Pg    8:18:11.63    0.71
                  Sg      18:28.51   -0.50
VYHS 133.0  14    Pn    8:18:11.44    0.10
                  Sn      18:28.06   -1.70
```

675.

```
 2019-07-31  time: 10:01:39.99 UTC  ML= 1.3
   lat: 47.177N  lon: 18.296E  h=  0.0 km
                 erh= 1.6km    erz= 196km
   nr=  6        gap=278       rms=0.12
   Locality: Sárkeszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  20.9 353    Pg   10:01:43.67   -0.05
                  Sg      01:46.28   -0.35
PKST  21.8 295    Pg   10:01:43.92    0.04
                  Sg      01:46.94    0.02
PKSG  25.0  17    Pg   10:01:44.45    0.01
                  Sg      01:48.14    0.22
```

676.

```
 2019-07-31  time: 10:30:55.89 UTC  ML= 1.3
   lat: 47.390N  lon: 18.451E  h=  0.0 km
                 erh= 3.6km    erz= 5.8km
   nr=  8        gap=112       rms=0.57
   Locality: Csákvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   4.6 272    Pg   10:30:57.00    0.29
                  Sg      30:57.57    0.22
CSKK  14.7 258    Pg   10:30:59.13    0.61
                  Sg      31:00.21   -0.37
PKST  34.7 245    Sg   10:31:06.16   -0.78
PSZ  123.3  62    Sg   10:31:35.53    0.45
VYHS 126.1  13    Sg   10:31:35.38   -0.58
PKSM 131.8 174    Sn   10:31:36.53   -1.13
```

677.

```
 2019-07-31  time: 11:04:53.53 UTC  ML= 1.5
   lat: 48.525N  lon: 20.799E  h=  0.0 km
                 erh= 3.4km    erz= 3.9km
   nr=  8        gap=128       rms=0.71
   Locality: Bódvalenke
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.6 259    Pg   11:04:57.84    0.09
                  Sg      05:00.27   -0.78
ABAH  41.4 128    Pg   11:05:01.63    0.71
                  Sg      05:07.05    0.36
NIE  105.5 340    Pg   11:05:13.07    0.69
KOLS 117.5  67    Sg   11:05:29.34   -1.56
A336 137.3 256    Sn   11:05:35.87   -0.65
VYHS 145.1 269    Sn   11:05:37.53   -0.73
```

678.

```
 2019-08-01  time:  7:14:49.96 UTC  ML= 1.0
   lat: 47.197N  lon: 18.214E  h=  0.0 km
                 erh= 0.8km    erz= 214km
   nr=  8        gap=134       rms=0.15
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  15.3 297    PgU   7:14:52.60   -0.09
                  Sg      14:55.09    0.27
CSKK  18.8  11    Pg    7:14:53.30   -0.02
                  Sg      14:56.07    0.13
PKSG  25.5  32    Pg    7:14:54.28   -0.22
                  Sg      14:58.14    0.09
MORH 113.9 163    Pg    7:15:10.50    0.21
PKSM 114.3 163    Pg    7:15:10.25   -0.11
```

679.

```
 2019-08-01  time:  7:23:08.38 UTC  ML= 1.2
   lat: 47.175N  lon: 18.223E  h=  0.0 km
                 erh= 0.5km    erz=55.0km
   nr=  5        gap=275       rms=0.02
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  17.1 303    PgU   7:23:11.46    0.03
                  Sg      23:13.77   -0.04
CSKK  21.1   8    Pg    7:23:12.14    0.00
                  Sg      23:15.11    0.03
PKSG  27.2  28    Pg    7:23:13.22   -0.02
```

680.

```
 2019-08-01  time:  8:11:52.78 UTC  ML= 1.2
   lat: 48.576N  lon: 20.738E  h=  0.0 km
                 erh= 3.1km    erz= 4.1km
   nr= 12        gap=115       rms=0.88
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  21.4 241    Pg    8:11:57.05    0.45
                  Sg      12:00.01    0.44
ABAH  48.4 130    Pg    8:12:01.17   -0.27
                  Sg      12:07.29   -0.89
```

```
PSZ   96.3 221    Pg    8:12:10.40    0.41
STHS 100.5  22   ePg    8:12:10.40   -0.33
                 eSg      12:24.70   -0.03
KOLS 119.6  71   ePg    8:12:18.00    3.85
                 eSg      12:29.80   -1.01
A336 134.3 253    Sn    8:12:35.01   -0.11
VYHS 140.8 266    Pn    8:12:17.38    0.01
                  Sn      12:34.76   -1.79
```

681.

```
 2019-08-01  time: 12:14:16.83 UTC  ML= 1.8
   lat: 48.250N  lon: 21.255E  h=  0.0 km
                 erh= 2.1km    erz= 3.3km
   nr= 12        gap=152       rms=0.60
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   5.2 347    PgU  12:14:17.82    0.06
                  Sg      14:19.20    0.71
KECS  62.6 294    Pg   12:14:27.94   -0.07
                  Sg      14:36.00   -0.73
TRPA  96.4  98    Pg   12:14:33.92   -0.13
                  Sg      14:46.82   -0.66
KOLS 106.8  45   ePg   12:14:36.40    0.50
                 eSg      14:53.20    2.42*
PSZ  107.9 250    Pg   12:14:36.89    0.80
                  Sg      14:50.33   -0.78
NIE  147.2 332    Sn   12:15:00.60   -1.42
VYHS 181.2 279    Sn   12:15:09.79    0.22
```

682.

```
 2019-08-02  time:  7:54:52.70 UTC  ML= 2.1
   lat: 48.287N  lon: 21.517E  h=  0.0 km
                 erh= 2.3km    erz= 599km
   nr=  8        gap=148       rms=0.45
   Locality: Bodrogolaszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  20.7 273    Pg    7:54:56.32   -0.06
                  Sg      54:59.59    0.33
TRPA  77.9 103    Pg    7:55:06.52   -0.09
                  Sg      55:17.68    0.22
KECS  79.5 286    Sg    7:55:17.73   -0.23
KOLS  90.9  38    Pg    7:55:09.59    0.66
                  Sg      55:21.08   -0.52
PSZ  127.6 251    Sg    7:55:32.18   -1.09
```

683.

```
 2019-08-02  time:  8:35:17.94 UTC  ML= 1.5
   lat: 48.361N  lon: 19.854E  h=  0.0 km
                 erh= 1.2km    erz= 448km
   nr= 11        gap=103       rms=0.37
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  48.7  74    Pg    8:35:26.80    0.16
                  Sg      35:32.94   -0.49
PSZ   49.3 176    PgU   8:35:27.00    0.25
                  Sg      35:33.55   -0.07
A336  65.0 257    Pg    8:35:29.91    0.36
                  Sg      35:37.78   -0.82
VYHS  76.7 281    Pg    8:35:31.67    0.03
                  Sg      35:41.10   -1.23
LANS  92.2 342   ePg    8:35:34.50    0.09
                 eSg      35:46.60   -0.66
NIE  122.4  16    Pg    8:35:39.95    0.16
```

684.

```
 2019-08-02  time:  8:44:49.05 UTC  ML= 1.1
   lat: 46.184N  lon: 18.279E  h=  0.0 km
                 erh= 0.9km    erz= 150km
   nr=  8        gap=210       rms=0.11
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.4 233    Pg    8:44:52.09   -0.07
                  Sg      44:54.97    0.38
PKSM  28.1  84    Pg    8:44:53.99   -0.08
                  Sg      44:58.19    0.20
MORH  28.4  83    Pg    8:44:54.14    0.02
                  Sg      44:58.06   -0.02
PKSV  32.9 184    Pg    8:44:54.96    0.04
                  Sg      44:59.39   -0.11
```

685.

```
 2019-08-02  time:  9:38:58.78 UTC  ML= 1.8
   lat: 46.122N  lon: 18.084E  h=  0.0 km
                 erh= 2.8km    erz= 613km
   nr=  7        gap=215       rms=0.41
   Locality: Abaliget
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   4.0 162    Pg    9:38:59.17   -0.32
                  Sg      39:00.50    0.45
PKSV  29.1 153    Sg    9:39:07.77   -0.26
PKSM  44.2  77    Sg    9:39:12.29   -0.54
MORH  44.5  76    Sg    9:39:12.98    0.05
PKS9  53.8  16    Pg    9:39:08.24   -0.15
PKB5  72.7  44    Pg    9:39:12.44    0.68
```

686.

```
 2019-08-02  time: 10:28:44.74 UTC  ML= 2.0
   lat: 47.188N  lon: 18.306E  h=  0.0 km
                 erh= 3.7km    erz= 405km
   nr=  5        gap=275       rms=0.19
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  19.8 350    Pg   10:28:48.21   -0.07
                  Sg      28:50.60   -0.43
PKST  22.0 291    Pg   10:28:48.73    0.05
                  Sg      28:51.83    0.08
PKSG  23.6  16    Sg   10:28:52.54    0.31
```

687.

```
 2019-08-02  time: 12:14:49.46 UTC  ML= 1.6
   lat: 48.324N  lon: 21.543E  h=  0.0 km
                 erh= 3.3km    erz= 736km
   nr=  7        gap=156       rms=0.48
   Locality: Hercegkút
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  22.7 262    Pg   12:14:53.91    0.39
                  Sg      14:57.03    0.35
TRPA  77.1 106    Pg   12:15:03.48    0.25
                  Sg      15:13.25   -0.72
KECS  80.2 283    Pg   12:15:03.57   -0.22
                  Sg      15:13.71   -1.26
KOLS  86.5  38    Sg   12:15:17.26    0.29
```

688.

```
 2019-08-02  time: 17:50:26.41 UTC  ML= 1.6
   lat: 47.822N  lon: 18.340E  h= 10.0 km
                 erh= 2.4km    erz= 3.1km
   nr= 12        gap=128       rms=0.67
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
SRO    2.3 243    Pg   17:50:28.45    0.21
                  Sg      50:28.99   -0.67
A338  21.5   2    Pg   17:50:31.98    1.35
                  Sg      50:33.83   -0.10
PKSG  48.0 175    Sg   17:50:42.13    0.13
A339  51.3 271    Sg   17:50:42.26   -0.75
CSKK  51.4 187    Sg   17:50:42.88   -0.17
PKST  66.7 200    Sg   17:50:48.00    0.14
A336  67.1  47    Sg   17:50:47.35   -0.61
VYHS  83.3  26    Pg   17:50:41.78    0.39
                  Sg      50:51.72   -1.35
EGYH  88.2 239    Sg   17:50:54.28   -0.34
```

689.

```
 2019-08-02  time: 22:34:31.66 UTC  ML= 1.9
   lat: 45.903N  lon: 17.196E  h= 10.0 km
                 erh= 3.1km    erz= 2.1km
   nr= 20        gap=175       rms=0.83
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  70.9 333    Pg   22:34:45.11    0.67
                  Sg      34:54.80    0.39
KOVH  73.0  74    Pg   22:34:45.44    0.63
                  Sg      34:55.07    0.00
PKSV  82.0  91    Pg   22:34:46.57    0.16
                  Sg      34:56.79   -1.12
KOGS  94.9 310    Pg   22:34:48.61   -0.09
                  Sg      34:59.93   -2.05
PTJ   96.1 270    Pg   22:34:48.64   -0.27
                  Sg      35:00.86   -1.51
PKS9 112.9  48    Pn   22:34:51.40   -0.09
                  Sn      35:05.45   -1.51
MORH 117.3  73    Pn   22:34:51.37   -0.67
                  Sn      35:07.00   -0.94
CRES 135.3 266    Pn   22:34:55.78    1.49
                  Sn      35:10.97   -0.98
PKB5 141.4  57    Pn   22:34:56.08    1.03
                  Sn      35:13.08   -0.22
PKST 163.8  23    Pn   22:34:58.67    0.83
                  Sn      35:18.13   -0.13
```

690.

```
 2019-08-05  time:  1:27:25.17 UTC  ML= 0.5
   lat: 47.400N  lon: 18.117E  h=  0.7 km
                 erh= 7.4km    erz=86.7km
   nr=  6        gap=251       rms=0.22
   Locality: Aka
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK  11.6 111    Pg    1:27:27.63    0.38
                  Sg      27:28.66   -0.21
PKST  16.9 202    Pg    1:27:28.20    0.01
                  Sg      27:30.37   -0.18
PKSG  20.7  93    Pg    1:27:28.86   -0.01
                  Sg      27:31.47   -0.29
```

691.

```
 2019-08-05  time:  8:09:43.24 UTC  ML= 1.7
   lat: 47.906N  lon: 19.414E  h=  0.0 km
                 erh= 1.4km    erz= 555km
   nr= 14        gap=127       rms=0.47
   Locality: Becske
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
HU03  13.9  91    Pg    8:09:45.85    0.14
                  Sg      09:48.19    0.55
PENC  16.2 218    Pg    8:09:46.09   -0.05
                  Sg      09:48.36   -0.04
PSZ   35.9  88    Pg    8:09:49.45   -0.20
                  Sg      09:55.15    0.49
A336  47.7 320    Pg    8:09:52.54    0.78
                  Sg      09:58.10   -0.31
VYHS  78.2 327    Pg    8:09:57.55    0.35
                  Sg      10:07.36   -0.74
A269  82.9 249    Pg    8:09:58.23    0.19
PKSG  95.8 233    Sg    8:10:12.88   -0.82
KECS 102.3  51    Sg    8:10:14.52   -1.23
JOS  106.3  52    Pg    8:10:01.79   -0.42
```

692.

```
 2019-08-05  time:  9:51:57.54 UTC  ML= 1.7
   lat: 48.571N  lon: 20.385E  h=  0.0 km
                 erh= 2.1km    erz= 789km
   nr= 13        gap= 93       rms=0.66
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  12.3 143    Pg    9:51:59.39   -0.34
                  Sg      52:00.86   -0.58
JOS   14.1 126    Pg    9:51:59.72   -0.34
                  Sg      52:01.84   -0.18
HU02  51.0 168    Pg    9:52:07.07    0.43
PSZ   81.2 207    Pg    9:52:12.63    0.59
                  Sg      52:22.92   -0.43
LANS  93.2 314    Pg    9:52:14.27    0.09
                  Sg      52:25.56   -1.60
STHS 113.1  34   ePg    9:52:18.70    0.97
                 eSg      52:33.30   -0.18
VYHS 114.7 266    Pg    9:52:18.73    0.70
                  Sg      52:32.22   -1.79
```

693.

```
 2019-08-06  time:  8:12:29.78 UTC  ML= 1.3
   lat: 48.604N  lon: 20.753E  h=  0.0 km
                 erh= 1.6km    erz= 4.2km
   nr= 11        gap= 86       rms=0.45
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.9 236    Pg    8:12:34.16    0.11
                  Sg      12:37.63    0.26
ABAH  49.7 134    Pg    8:12:39.26    0.60
                  Sg      12:44.98   -0.61
STHS  97.2  22   ePg    8:12:47.30    0.15
                 eSg      12:59.90   -0.79
PSZ   99.4 220    Pg    8:12:47.14   -0.39
                  Sg      13:00.82   -0.55
LANS 112.1 303    Pg    8:12:49.85    0.04
KOLS 117.6  72    Sg    8:13:05.32   -1.85
VYHS 142.0 265    Pn    8:12:54.97    0.44
```

694.

```
 2019-08-06  time: 11:04:22.54 UTC  ML= 1.6
   lat: 47.840N  lon: 20.151E  h=  0.0 km
                 erh= 3.6km    erz= ***km
   nr=  9        gap=114       rms=0.89
   Locality: Kisnána
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   21.1 294    Pg   11:04:26.53    0.23
                  Sg      04:29.14   -0.10
BSZH  60.7 172    Sg   11:04:40.70   -1.15
PENC  65.3 265    Pg   11:04:34.93    0.72
                  Sg      04:44.44    1.13
KECS  75.7  19    Sg   11:04:45.84   -0.76
ABAH  95.6  58    Sg   11:04:53.80    0.85
VYHS 121.9 307    Pg   11:04:43.75   -0.55
                  Sg      04:57.51   -3.77
```

695.

```
 2019-08-06  time: 17:33:18.82 UTC  ML= 1.1
   lat: 47.199N  lon: 18.373E  h=  2.2 km
                 erh= 1.5km    erz=13.7km
   nr=  6        gap=281       rms=0.10
   Locality: Székesfehérvár
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK  20.1 335    Pg   17:33:22.53    0.10
                  Sg      33:25.41    0.16
PKSG  21.4   4    Pg   17:33:22.63   -0.04
                  Sg      33:25.53   -0.14
PKST  26.5 285    Pg   17:33:23.57    0.00
                  Sg      33:27.12   -0.15
```

696.

```
 2019-08-07  time:  8:16:20.21 UTC  ML= 1.8
   lat: 47.784N  lon: 19.032E  h=  0.0 km
                 erh= 1.2km    erz= 448km
   nr= 10        gap=122       rms=0.35
   Locality: Dunabogdány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A270   6.9 352    Pg    8:16:21.47    0.04
                  Sg      16:22.12   -0.26
PENC  18.8  88    Pg    8:16:24.06    0.50
                  Sg      16:25.63   -0.54
BUD   33.4 181    Sg    8:16:30.59   -0.24
A336  50.0 357    Pg    8:16:29.50    0.37
                  Sg      16:36.37    0.28
PKSG  65.0 228    Sg    8:16:40.56   -0.31
PSZ   66.3  77    Sg    8:16:40.98   -0.30
VYHS  80.3 350    Sg    8:16:45.29   -0.43
```

697.

```
 2019-08-07  time:  8:37:37.51 UTC  ML= 1.4
   lat: 48.615N  lon: 20.741E  h=  0.0 km
                 erh= 1.6km    erz= 3.5km
   nr= 11        gap=112       rms=0.41
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.9 232    Pg    8:37:41.87    0.09
                  Sg      37:44.38   -0.73
ABAH  51.2 134    Pg    8:37:46.46   -0.19
                  Sg      37:53.37   -0.41
STHS  96.4  22   ePg    8:37:55.20    0.48
                 eSg      38:07.10   -1.04
PSZ   99.8 219    Pg    8:37:55.68    0.35
                  Sg      38:09.38    0.15
LANS 110.7 303    Pg    8:37:57.19   -0.09
VYHS 141.3 265    Pn    8:38:02.50    0.35
                  Sn      38:19.64   -1.74
```

698.

```
 2019-08-07  time:  9:14:11.51 UTC  ML= 1.8
   lat: 48.597N  lon: 21.427E  h=  0.7 km
                 erh= 3.9km    erz= 5.9km
   nr= 12        gap=126       rms=1.00
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
ABAH  36.3 203    Pg    9:14:17.99    0.00
                  Sg      14:24.52    1.48
KECS  70.7 260    Pg    9:14:23.10   -1.03
                  Sg      14:32.31   -1.66
KOLS  72.5  59    Pg    9:14:25.75    1.29
                  Sg      14:33.56   -1.01
TRPA  97.4 122    Pg    9:14:28.67   -0.23
                  Sg      14:40.84   -1.63
LANS 156.3 293    Pn    9:14:39.09    1.14
A336 184.3 257    Pn    9:14:42.06    0.63
VYHS 191.7 267    Pn    9:14:42.28   -0.07
                  Sn      15:07.03    0.62
```

699.

```
 2019-08-07  time:  9:51:29.34 UTC  ML= 1.4
   lat: 48.597N  lon: 20.877E  h=  0.0 km
                 erh= 2.7km    erz= 6.5km
   nr= 10        gap=111       rms=0.64
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  31.6 246    Pg    9:51:35.03    0.05
                  Sg      51:37.94   -1.43
ABAH  42.9 141    Pg    9:51:37.14    0.13
                  Sg      51:43.01    0.02
STHS  95.0  16   ePg    9:51:47.40    1.10
                 eSg      51:56.90   -2.63*
PSZ  105.0 224    Pg    9:51:48.28    0.19
                  Sg      52:02.64   -0.07
KOLS 109.2  70    Sg    9:52:02.94   -1.12
VYHS 151.1 266    Pn    9:51:55.36    0.14
```

700.

```
 2019-08-08  time:  5:57:18.33 UTC  ML= 1.3
   lat: 47.865N  lon: 19.986E  h=  0.0 km
                 erh= 2.1km    erz= 383km
   nr=  8        gap=224       rms=0.29
   Locality: Mátraháza
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ    9.1 311    Pg    5:57:19.92   -0.03
                  Sg      57:21.94    0.73
HU03  29.2 278    Pg    5:57:23.25   -0.30
HU02  49.4  55    Pg    5:57:27.28    0.14
KECS  78.1  28    Sg    5:57:43.03   -0.14
JOS   81.3  30    Sg    5:57:43.89   -0.29
VYHS 110.5 309   ePg    5:57:38.20    0.14
                 eSg      57:51.90   -1.54*
```

701.

```
 2019-08-08  time:  6:50:58.00 UTC  ML= 1.5
   lat: 47.360N  lon: 18.424E  h=  0.0 km
                 erh= 3.7km    erz= 793km
   nr=  8        gap=189       rms=0.56
   Locality: Gánt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   4.4 325    PgU   6:50:59.22    0.45
                  Sg      50:59.70    0.32
CSKK  12.3 272    Pg    6:51:00.63    0.43
                  Sg      51:02.09    0.17
PKST  31.5 249    Sg    6:51:06.90   -1.11
PSZ  126.8  61    Sg    6:51:38.61    0.31
VYHS 129.8  14    Pg    6:51:20.71   -0.47
                  Sg      51:38.20   -1.07
```

702.

```
 2019-08-08  time: 11:19:38.79 UTC  ML= 1.5
   lat: 47.858N  lon: 19.140E  h=  0.0 km
                 erh= 2.2km    erz= 757km
   nr= 10        gap=106       rms=0.59
   Locality: Nőtincs
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A270   9.2 261    Pg   11:19:40.38   -0.06
PENC  13.0 125    Pg   11:19:41.22    0.12
                  Sg      19:43.66    0.75
A336  43.0 346    Pg   11:19:46.64    0.16
                  Sg      19:52.62    0.15
PSZ   56.8  83    Pg   11:19:48.92   -0.01
                  Sg      19:55.64   -1.20
VYHS  74.3 342    Pg   11:19:52.87    0.82
                  Sg      20:01.38   -1.02
PKST 106.6 231    Sg   11:20:11.55   -1.13
```

703.

```
 2019-08-09  time:  8:17:44.99 UTC  ML= 1.3
   lat: 46.098N  lon: 18.054E  h=  0.0 km
                 erh= 4.0km    erz= 725km
   nr= 10        gap=257       rms=0.57
   Locality: Bakonya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   3.7 107    Pg    8:17:45.53   -0.12
                  Sg      17:46.94    0.78
PKSV  27.9 147    Pg    8:17:50.20    0.23
                  Sg      17:54.35    0.50
PKSM  47.1  74    Pg    8:17:52.81   -0.59
                  Sg      17:59.43   -0.53
MORH  47.4  74    Pg    8:17:52.74   -0.72
                  Sg      17:59.60   -0.46
PKB5  76.2  44    Pg    8:17:59.17    0.58
                  Sg      18:10.30    1.09
```

704.

```
 2019-08-09  time:  8:51:31.77 UTC  ML= 1.8
   lat: 48.559N  lon: 20.767E  h=  0.0 km
                 erh= 3.8km    erz= 5.6km
   nr= 10        gap= 92       rms=1.69
   Locality: Tornanádaska
   Comments: probably explosion

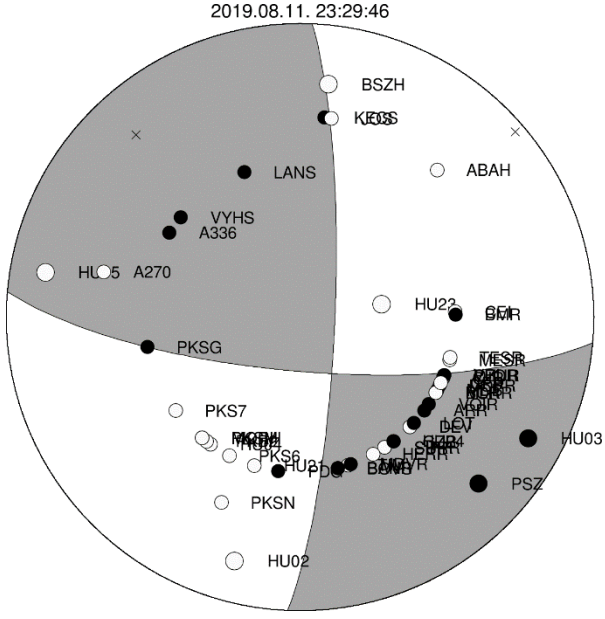
sta   dist azm  phase  hr mn  sec     res
KECS  22.4 248    Pg    8:51:35.82    0.05
                  Sg      51:39.43    0.54
ABAH  45.6 130    Sg    8:51:48.97    2.71
PSZ   96.3 222    Sg    8:52:04.14    1.76
NIE  101.2 341    Sg    8:52:05.54    1.60
STHS 101.6  20   ePg    8:51:50.60    0.70
                 eSg      52:01.30   -2.75
KOLS 118.3  69    Sg    8:52:07.55   -1.83
TRPA 139.8 110    Sn    8:52:12.57   -2.74
VYHS 142.8 267    Sn    8:52:13.98   -2.00
```

705.

```
 2019-08-11  time: 23:29:46.78 UTC  ML= 4.1
   lat: 47.644N  lon: 20.330E  h= 14.4 km
                 erh= 1.0km    erz= 0.9km
   nr= 88        gap= 27       rms=0.69
   Locality: Tenk
   Comments: felt 4-5 EMS

sta   dist azm  phase  hr mn  sec     res
HU23   6.1 261    PgD  23:29:49.32   -0.26
BSZH  38.6 187    PgD  23:29:54.78    0.65
PSZ   44.7 313    PgU  23:29:55.05   -0.12
HU02  55.1  15    PgD  23:29:56.31   -0.64
HU05  61.6 100    PgD  23:29:58.36    0.29
HU03  61.9 298    PgU  23:29:58.14    0.01
PENC  80.4 282    Pg   23:30:01.17   -0.19
                  Sg      30:11.37   -1.36
PKSN  90.1 203    P*D  23:30:03.32    0.44
KECS  94.0   7    P*U  23:30:03.04   -0.43
                  S*      30:15.58   -0.92
JOS   96.0   9    P*D  23:30:03.15   -0.62
ABAH  99.3  43    P*D  23:30:03.98   -0.30
                  S*      30:17.35   -0.58
BUD   99.9 260    P*   23:30:03.72   -0.65
                  S*      30:16.74   -1.36
A270 100.9 283    P*D  23:30:04.55    0.03
HU24 102.8 143    PnD  23:30:05.30    0.52
PKS7 110.5 233    PnD  23:30:05.73   -0.01
                  Sn      30:19.92   -0.61
HU04 112.8 215    PnD  23:30:05.71   -0.31
A336 119.1 303    PnU  23:30:07.29    0.47
                  Sn      30:22.31   -0.14
HU07 124.4  72    Pn   23:30:07.32   -0.15
BORR 126.0 119    PnC  23:30:08.02    0.35
PKS6 129.8 207    PnD  23:30:08.13   -0.02
                  Sn      30:24.04   -0.78
PKB2 135.8 217    PnD  23:30:08.64   -0.25
VYHS 146.1 310    PnU  23:30:10.75    0.57
                  Sn      30:29.32    0.89
A269 146.4 270    Pn   23:30:10.95    0.73
PKSG 148.8 259    PnU  23:30:10.79    0.28
                  Sn      30:29.03    0.00
SRO  152.5 277   ePn   23:30:13.60    2.62
                 eSn      30:32.00    2.15
HU21 153.5 197    PnD  23:30:11.12    0.02
PKS2 153.6 214    Pn   23:30:11.45    0.33
                  Sn      30:29.89   -0.22
A338 153.8 286    Pn   23:30:12.02    0.89
CSKK 159.1 259    Pn   23:30:12.20    0.41
                  Sn      30:31.19   -0.12
CEI  159.9  88    PnD  23:30:11.87   -0.03
                  Sn      30:30.00   -1.50
PKB3 160.8 212    Pn   23:30:11.61   -0.40
PKB5 168.1 226    Pn   23:30:12.59   -0.33
                  Sn      30:36.37    3.06
TRPA 173.8  72    Pn   23:30:12.65   -0.98
LANS 179.3 339    PnU  23:30:15.51    1.19
SIRR 183.4 147    PnD  23:30:14.85    0.02
PKS9 195.1 233    Pn   23:30:16.02   -0.27
                  Sn      30:44.45    5.15*
NIE  197.4 360    Pn   23:30:18.37    1.80
A337 201.2 289    Pn   23:30:18.05    1.00
TIH  202.1 246    Pn   23:30:17.92    0.75
KOLS 203.3  45    Pn   23:30:17.50    0.19
                  Sn      30:41.83    0.70
DRGR 203.7 118    Pn   23:30:17.19   -0.17
```

			Sn	30:45.69	4.47*
MORH	204.2	219	PnD	23:30:16.59	-0.83
			Sn	30:39.78	-1.55
PKSM	204.7	219	PnD	23:30:16.62	-0.86
			Sn	30:39.81	-1.63
MESR	205.2	106	PnD	23:30:18.02	0.47
			Sn	30:41.60	0.05
STHS	208.4	19	Pn	23:30:18.44	0.50
TIM	222.7	162	PnD	23:30:21.59	1.86
			Sn	30:45.40	-0.03
EGYH	227.2	264	Pn	23:30:21.46	1.17
			Sn	30:47.44	1.00
SMOL	236.9	294	Pn	23:30:21.89	0.39
BMR	237.9	89	PnC	23:30:21.16	-0.46
			Sn	30:47.90	-0.90
MODS	241.8	290	ePn	23:30:19.40	-2.72
KOVH	242.6	225	Pn	23:30:21.42	-0.79
			Sn	30:48.19	-1.65
BZS	245.9	156	Pn	23:30:22.84	0.21
			Sn	30:48.71	-1.88
ZST	249.0	284	Pn	23:30:23.26	0.25
			Sn	30:49.86	-1.41
SURR	250.9	147	PnD	23:30:23.70	0.45
PKSV	251.6	219	Pn	23:30:29.73	6.40*
BANR	258.9	166	PnC	23:30:25.19	0.95
CJR	268.4	113	PnD	23:30:26.20	0.77
DEV	277.4	135	PnD	23:30:27.17	0.62
FRGS	281.7	188	Pn	23:30:26.68	-0.41
			Sn	30:57.16	-1.37
SOP	283.4	271	Pn	23:30:27.66	0.36
			Sn	30:57.70	-1.20
OJC	289.1	352	Pn	23:30:29.19	1.18
			Sn	31:00.34	0.17
OKC	292.1	327	ePn	23:30:29.80	1.42
BEHE	300.0	244	Pn	23:30:30.21	0.84*
RONA	303.0	271	Pn	23:30:30.16	0.41*
			Sn	31:01.12	-2.15*
ARCR	310.2	102	Pn	23:30:30.97	0.33*
			Sn	31:05.26	0.41*
GZR	312.8	143	PnC	23:30:32.15	1.19*
			Sn	31:04.20	-1.22*
MORC	313.6	319	Pn	23:30:31.80	0.73*
			Sn	31:06.32	0.70*
BEO	313.9	178	Pn	23:30:30.97	-0.13*
KRUC	331.6	298	Pn	23:30:33.51	0.20*
			Sn	31:08.54	-1.06*
VRAC	332.6	304	Pn	23:30:33.96	0.53*
			Sn	31:08.41	-1.41*
MDVR	335.6	161	PnC	23:30:34.23	0.43*
CONA	336.4	275	Pn	23:30:34.28	0.38*
			Sn	31:09.69	-0.97*
HERR	346.7	152	PnD	23:30:35.94	0.75*
MDB	350.9	118	PnC	23:30:37.62	1.90*
LOT	359.4	133	PnC	23:30:38.01	1.24*
ARSA	365.2	263	Pn	23:30:38.48	0.98*
			Sn	31:15.67	-1.39*
KRLC	375.4	316	ePn	23:30:40.00	1.23*
GROS	389.8	250	Pn	23:30:40.96	0.40*
TREC	402.5	297	ePn	23:30:42.80	0.65*
			eSn	31:24.90	-0.43*
PERS	411.1	254	Pn	23:30:43.37	0.15*
			Sn	31:28.01	0.76*
SOKA	415.8	255	Pn	23:30:44.00	0.19*
			Sn	31:27.27	-1.03*
ARR	416.1	127	PnC	23:30:44.89	1.05*
DPC	420.3	316	ePn	23:30:45.60	1.24*
BBLS	425.7	190	Pn	23:30:45.31	0.26*
			Sn	31:29.09	-1.41*
DOPR	428.7	116	PnC	23:30:46.47	1.05*
VOIR	437.3	124	PnC	23:30:47.92	1.43*
UPC	448.3	315	ePn	23:30:48.90	1.04*
OZUR	450.2	112	PnC	23:30:49.72	1.63*
MOA	455.4	273	Pn	23:30:49.57	0.83*
			Sn	31:38.15	1.07*
BOVS	458.3	166	PnC	23:30:50.35	1.25*
GOPC	479.3	302	ePn	23:30:52.10	0.37*
			eSn	31:41.20	-1.19*
MLR	492.5	119	PnD	23:30:54.39	1.02*
ZVC	495.3	294	ePn	23:30:54.30	0.58*
TESR	496.1	105	PnD	23:30:55.29	1.47*
PRU	498.7	302	ePn	23:30:54.40	0.25*
			eSn	31:44.50	-2.20*
BIOA	502.7	271	Pn	23:30:55.41	0.77*
			Sn	31:46.80	-0.77*
MYKA	519.8	257	Pn	23:30:57.40	0.62*
			Sn	31:49.80	-1.58*
PLOR	522.4	112	PnC	23:30:58.80	1.70*
KHC	526.8	288	ePn	23:30:58.40	0.76*
VRI	527.2	112	PnC	23:30:58.85	1.15*
PVCC	529.2	307	ePn	23:30:58.40	0.46*
KBA	531.5	263	Pn	23:30:59.00	0.77*
			Sn	31:52.50	-1.47*
PDG	585.6	188	PnC	23:31:05.72	0.74*
ABTA	600.8	260	Pn	23:31:07.33	0.46*
WTTA	657.0	266	Pn	23:31:14.44	0.56*
			Sn	32:20.05	-1.78*
CFR	659.8	115	PnD	23:31:14.75	0.52*
WATA	660.6	267	Pn	23:31:14.75	0.42*
SQTA	689.8	266	Pn	23:31:18.51	0.54*
			Sn	32:27.38	-1.73*
MOTA	696.1	267	Pn	23:31:19.15	0.39*
			Sn	32:28.57	-1.93*
RETA	720.3	269	Pn	23:31:22.21	0.44*
FETA	729.0	265	Pn	23:31:23.32	0.46*
DAVA	788.9	267	Pn	23:31:30.75	0.42*



706.

2019-08-12 time: 2:44:25.13 UTC ML= 1.1
lat: 47.696N lon: 20.338E h= 0.3 km
erh= 2.3km erz=92.4km
nr= 9 gap=179 rms=0.31
Locality: Erdőtelek
Comments:

sta	dist	azm	phase	hr mn	sec	res
HU23	9.4	224	PgD	2:44:26.99		0.18
			Sg	44:27.72		-0.40
PSZ	41.5	307	Pg	2:44:32.99		0.45
			Sg	44:37.97		-0.34
HU02	49.4	16	Pg	2:44:34.30		0.34
PENC	79.9	278	Pg	2:44:39.36		-0.05
			Sg	44:50.28		-0.27
ABAH	94.8	45	Pg	2:44:41.90		-0.16

```
                  Sg      44:54.73   -0.52

707.
 2019-08-12  time:  3:03:38.64 UTC  ML= 1.4
   lat: 47.671N  lon: 20.346E  h= 10.0 km
                 erh= 3.7km    erz= 2.4km
   nr= 10        gap=188       rms=0.57
   Locality: Tenk
   Comments:

sta   dist azm  phase  hr mn  sec     res
HU23   8.2 241    PgU   3:03:41.13    0.18
                  Sg      03:41.97   -0.78
HU02  51.9  15    Pg    3:03:48.47    0.39
                  Sg      03:54.35   -1.10
PENC  80.9 279    Pg    3:03:54.01    0.80
                  Sg      04:03.62   -0.94
JOS   92.8   9    Pg    3:03:55.54    0.22
ABAH  96.3  44    Pg    3:03:56.13    0.20
                  Sg      04:09.10   -0.32
PKS7 113.2 232    Sn    3:04:13.34   -0.68

708.
 2019-08-12  time:  6:28:02.72 UTC  ML= 0.9
   lat: 47.292N  lon: 18.310E  h=  0.0 km
                 erh= 0.6km    erz= 1.9km
   nr=  7        gap=167       rms=0.40
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   8.8 335    Pg    6:28:04.48    0.19
                  Sg      28:05.66    0.15
PKSG  12.7  29    Pg    6:28:04.86   -0.13
                  Sg      28:06.84    0.09
MORH 122.3 168    Sg    6:28:41.53   -0.07
PKSM 122.7 168    Sg    6:28:41.78    0.06
VYHS 139.3  16    Sn    6:28:43.11   -3.06

709.
 2019-08-12  time:  7:22:41.69 UTC  ML= 2.0
   lat: 47.303N  lon: 17.685E  h=  0.0 km
                 erh= 2.6km    erz= 3.3km
   nr=  8        gap=143       rms=1.01
   Locality: Bakonykoppány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
EGYH  29.6 295    Pg    7:22:48.01    1.03
                  Sg      22:50.87   -0.23
CSKK  44.0  81    Sg    7:22:55.35   -0.32
TIH   47.5 161    Sg    7:22:57.61    0.82
PKSG  54.2  79    Sg    7:22:59.17    0.25
KOVH 138.7 167    Sn    7:23:24.37   -0.63
MORH 141.3 149    Sn    7:23:24.36   -1.22
CONA 153.7 297    Sn    7:23:24.97   -3.37

710.
 2019-08-12  time:  9:26:45.86 UTC  ML= 1.5
   lat: 48.373N  lon: 19.860E  h=  0.0 km
                 erh= 2.5km    erz= 704km
   nr=  9        gap=155       rms=0.53
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  47.9  75    Pg    9:26:54.97    0.55
                  Sg      27:00.34   -0.76
PSZ   50.6 177    Pg    9:26:55.12    0.22
                  Sg      27:01.49   -0.46
A336  65.7 256    Pg    9:26:57.93    0.33
                  Sg      27:05.75   -1.00
VYHS  76.9 280    Pg    9:27:00.14    0.54
                  Sg      27:09.49   -0.82
ABAH 102.7  95    Pg    9:27:03.96   -0.24

711.
 2019-08-13  time:  3:14:32.85 UTC  ML= 1.0
   lat: 47.706N  lon: 20.430E  h=  5.2 km
                 erh= 5.3km    erz=13.1km
   nr=  9        gap=199       rms=0.64
   Locality: Besenyőtelek
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   8.4 227    Pg    3:14:34.92    0.30
                  Sg      14:35.72   -0.28
TMP1  11.7 208    Pg    3:14:35.08   -0.05
                  Sg      14:36.89   -0.02
HU23  15.6 240    Pg    3:14:35.47   -0.32
PSZ   46.6 300    Pg    3:14:42.52    1.31
                  Sg      14:47.08   -0.66
HU02  46.8   9    Pg    3:14:41.66    0.40
JOS   88.2   5    Pg    3:14:47.62   -1.01

712.
 2019-08-13  time:  3:53:01.67 UTC  ML= 1.2
   lat: 47.656N  lon: 20.326E  h=  5.4 km
                 erh= ---km    erz= ---km
   nr=  4        gap=158       rms=0.05
   Locality: Tenk
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   1.7  98    Pg    3:53:02.74    0.06
                  Sg      53:03.49    0.01
TMP1   5.3 154    Pg    3:53:02.97   -0.05
PSZ   43.5 312    Sg    3:53:15.60   -0.01

713.
 2019-08-13  time:  8:54:00.94 UTC  ML= 1.4
   lat: 48.604N  lon: 20.749E  h=  0.0 km
                 erh= 2.3km    erz= 4.0km
   nr= 12        gap=112       rms=0.66
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.6 235    Pg    8:54:05.52    0.36
                  Sg      54:07.33   -1.12
ABAH  49.9 133    Pg    8:54:09.85    0.01
                  Sg      54:16.11   -0.68
STHS  97.4  22   ePg    8:54:18.40    0.07
                 eSg      54:31.00   -0.89
PSZ   99.2 220    Pg    8:54:19.99    1.34
                  Sg      54:32.23   -0.23
LANS 112.0 303    Pg    8:54:21.12    0.19
                  Sg      54:35.56   -0.97
VYHS 141.8 265    Pn    8:54:25.95    0.30
                  Sn      54:44.00   -0.93

714.
 2019-08-13  time:  8:55:24.99 UTC  ML= 1.9
   lat: 48.239N  lon: 21.240E  h=  0.0 km
                 erh= 3.2km    erz= 921km
   nr=  8        gap=153       rms=0.66
   Locality: Tállya
   Comments: probably explosion
```

```
sta   dist azm  phase  hr mn  sec     res
ABAH   6.3 359    PgU   8:55:26.05   -0.06
                  Sg      55:27.41    0.43
KECS  62.1 296    Pg    8:55:36.55    0.47
                  Sg      55:43.90   -0.84
TRPA  97.3  97    Sg    8:55:55.58   -0.34
PSZ  106.5 250    Pg    8:55:44.86    0.86
                  Sg      55:57.58   -1.25
KOLS 108.4  45    Sg    8:55:58.74   -0.71
```

715.

```
 2019-08-13  time:  9:01:40.33 UTC  ML= 0.6
   lat: 47.200N  lon: 18.299E  h=  0.0 km
                 erh= 2.6km    erz= 352km
   nr=  5        gap=270       rms=0.16
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.4 351    Sg    9:01:46.40    0.23
PKST  21.1 288    Pg    9:01:44.03   -0.07
                  Sg      01:47.01   -0.03
PKSG  22.4  18    Pg    9:01:44.44    0.11
                  Sg      01:47.12   -0.34
```

716.

```
 2019-08-13  time: 10:58:05.13 UTC  ML= 1.6
   lat: 47.109N  lon: 17.990E  h=  0.0 km
                 erh= 3.4km    erz= 945km
   nr= 13        gap=174       rms=0.80
   Locality: Litér
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  17.0  11    Pg   10:58:07.89   -0.28
                  Sg      58:10.23   -0.31
TIH   24.4 198    Pg   10:58:10.21    0.73
                  Sg      58:14.12    1.24
CSKK  34.9  36    Sg   10:58:16.06   -0.17
PKSG  43.7  44    Pg   10:58:12.45   -0.49
                  Sg      58:20.08    1.06
PKB5  80.6 135    Sg   10:58:32.15    1.39
MORH 111.2 153    Pg   10:58:25.26    0.27
                  Sg      58:39.00   -1.48
PKSM 111.5 153    Pg   10:58:25.10    0.06
                  Sg      58:39.15   -1.42
KOVH 113.8 176    Sg   10:58:40.08   -1.21
```

717.

```
 2019-08-13  time: 12:49:43.24 UTC  ML= 2.3
   lat: 47.663N  lon: 20.342E  h= 11.2 km
                 erh= 1.2km    erz= 1.1km
   nr= 16        gap=111       rms=0.37
   Locality: Tenk
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   1.1 155    Pg   12:49:45.06   -0.19
TMP1   5.6 168    Pg   12:49:45.34   -0.14
HU23   7.5 246    PgD  12:49:45.82    0.17
BSZH  40.8 188    Pg   12:49:51.29    0.49
                  Sg      49:55.29   -1.40
PSZ   43.9 310    Pg   12:49:51.95    0.61
                  Sg      49:57.60   -0.05
HU03  61.7 296    Sg   12:50:02.66   -0.53
PENC  80.8 280    Pg   12:49:58.15    0.34
                  Sg      50:08.82   -0.35
KECS  91.8   7    Sg   12:50:12.54   -0.10
JOS   93.8   9    Pg   12:49:59.91   -0.19
ABAH  97.2  44    Pg   12:50:00.75    0.04
                  Sg      50:13.79   -0.54
PKS7 112.5 233    Pn   12:50:03.05    0.18
                  Sn      50:17.41   -0.77
```

718.

```
 2019-08-14  time:  7:17:28.75 UTC  ML= 1.6
   lat: 47.626N  lon: 20.347E  h= 10.0 km
                 erh= 3.7km    erz= 2.4km
   nr=  8        gap=139       rms=0.42
   Locality: Tenk
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP1   1.6 153    Pg    7:17:30.98    0.42
                  Sg      17:31.85   -0.12
TMP2   3.1   1    Pg    7:17:30.90    0.28
                  Sg      17:31.77   -0.31
HU23   7.3 278    PgD   7:17:31.47    0.51
                  Sg      17:32.25   -0.44
BSZH  36.8 189    Pg    7:17:35.05   -0.50
HU02  56.7  14    Sg    7:17:46.50   -0.56
```

719.

```
 2019-08-14  time:  9:47:36.27 UTC  ML= 1.3
   lat: 47.643N  lon: 20.316E  h= 11.4 km
                 erh= 2.0km    erz= 3.0km
   nr=  7        gap=124       rms=0.22
   Locality: Tenk
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   2.7  61    Pg    9:47:38.35   -0.01
TMP1   4.5 137    Pg    9:47:38.31   -0.14
HU23   5.0 261    Pg    9:47:38.92    0.43
                  Sg      47:40.04   -0.18
PSZ   44.1 314    Sg    9:47:50.73    0.00
HU02  55.6  16    Sg    9:47:54.33    0.03
HU03  61.1 298    Sg    9:47:55.74   -0.28
```

720.

```
 2019-08-14  time: 10:04:05.24 UTC  ML= 0.9
   lat: 47.267N  lon: 18.261E  h=  0.0 km
                 erh= 7.9km    erz= ***km
   nr=  6        gap=232       rms=0.72
   Locality: Kincsesbánya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  10.7 360    Pg   10:04:05.92   -1.23
                  Sg      04:08.27   -0.37
PKSG  17.0  35    Pg   10:04:08.95    0.68
                  Sg      04:11.34    0.70
PKST  17.2 267    Pg   10:04:08.33    0.02
                  Sg      04:11.25    0.54
```

721.

```
 2019-08-14  time: 10:27:44.25 UTC  ML= 1.5
   lat: 48.884N  lon: 20.505E  h=  0.0 km
                 erh= 2.4km    erz= 751km
   nr= 10        gap=101       rms=0.58
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  44.7 182    Pg   10:27:52.30    0.08
                  Sg      27:57.86   -0.58
NIE   61.0 347    Sg   10:28:02.90   -0.75
ABAH  85.0 140    Pg   10:28:00.12    0.70
                  Sg      28:10.58   -0.68
PSZ  116.6 203    Pg   10:28:05.30    0.24
                  Sg      28:19.75   -1.55
KOLS 129.7  88   ePg   10:28:07.60    0.18
```

```
                 eSg      28:24.70   -0.79
VYHS 130.3 251    Pg   10:28:08.01    0.49
```

722.

```
 2019-08-14  time: 10:40:02.76 UTC  ML= 1.2
   lat: 48.756N  lon: 20.402E  h=  0.0 km
                 erh= 7.1km    erz= ***km
   nr=  8        gap=234       rms=1.05
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  31.0 168    Sg   10:40:13.45    0.85
ABAH  80.3 130    Pg   10:40:16.73   -0.37
                  Sg      40:26.89   -1.39
PSZ  100.5 202    Pg   10:40:21.43    0.74
                  Sg      40:34.81    0.12
A336 118.9 241    Sg   10:40:39.70   -0.84
VYHS 119.0 256    Pg   10:40:25.07    1.06
                  Sg      40:37.38   -3.21
```

723.

```
 2019-08-15  time:  8:57:19.34 UTC  ML= 1.0
   lat: 46.174N  lon: 18.293E  h=  6.7 km
                 erh= 1.0km    erz= 3.7km
   nr=  8        gap=156       rms=0.14
   Locality: Zobákpuszta
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOVH  17.7 237    Pg    8:57:22.56   -0.16
                  Sg      57:25.51    0.15
PKSM  27.2  81    Pg    8:57:24.45    0.10
                  Sg      57:28.22   -0.03
MORH  27.5  80    Pg    8:57:24.48    0.08
PKSV  31.9 186    Pg    8:57:25.27    0.11
                  Sg      57:29.56   -0.14
PKB4  43.1  34    Sg    8:57:32.82   -0.38
```

724.

```
 2019-08-15  time:  9:02:26.77 UTC  ML= 0.7
   lat: 47.229N  lon: 18.270E  h=  0.6 km
                 erh= 1.7km    erz=63.0km
   nr=  7        gap=139       rms=0.14
   Locality: Iszkaszentgyörgy
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK  14.9 357    Pg    9:02:29.50    0.06
                  Sg      02:31.66    0.15
PKST  18.1 280    Pg    9:02:30.05    0.04
                  Sg      02:32.24   -0.30
PKSG  20.3  27    Pg    9:02:30.43    0.04
                  Sg      02:32.86   -0.35
PKSM 116.6 166    Pg    9:02:47.63    0.03
```

725.

```
 2019-08-15  time:  9:05:16.19 UTC  ML= 2.1
   lat: 48.528N  lon: 20.771E  h=  6.8 km
                 erh= 3.4km    erz= 2.4km
   nr=  7        gap=218       rms=0.36
   Locality: Tornaszentandrás
   Comments:

sta   dist azm  phase  hr mn  sec     res
KECS  21.6 257    Pg    9:05:19.99   -0.25
                  Sg      05:23.66    0.26
ABAH  43.2 127    Pg    9:05:23.76   -0.25
                  Sg      05:30.04   -0.07
PSZ   94.0 224    Sg    9:05:46.44    0.30
VYHS 143.0 268    Pn    9:05:40.84    0.65
                  Sn      05:58.37   -0.54
```

726.

```
 2019-08-15  time: 10:39:53.49 UTC  ML= 1.3
   lat: 47.518N  lon: 18.561E  h= 10.0 km
                 erh= 5.5km    erz= 3.4km
   nr= 10        gap=167       rms=0.49
   Locality: Nagyegyháza
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSG  19.0 222    Pg   10:39:57.41    0.08
                  Sg      39:59.87   -0.45
CSKK  28.5 233    Pg   10:39:58.71   -0.17
                  Sg      40:03.98    0.90
PKST  49.1 234    Pg   10:40:02.24   -0.20
                  Sg      40:08.90   -0.52
VYHS 110.4  11    Pn   10:40:13.60    0.59
                  Sn      40:26.53   -1.71
MORH 144.9 177    Sn   10:40:36.03    0.13
PKSM 145.4 178    Sn   10:40:36.18    0.19
```

727.

```
 2019-08-16  time:  6:11:10.45 UTC  ML= 1.5
   lat: 47.872N  lon: 19.387E  h=  0.0 km
                 erh= 3.1km    erz= 858km
   nr=  6        gap=139       rms=0.51
   Locality: Bercel
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  12.0 221    Pg    6:11:12.46   -0.14
                  Sg      11:14.61    0.34
PSZ   38.3  82    Pg    6:11:17.15   -0.14
                  Sg      11:22.34   -0.28
A336  49.5 324    Pg    6:11:20.02    0.73
                  Sg      11:25.06   -1.12
```

728.

```
 2019-08-16  time:  6:58:09.51 UTC  ML= 1.5
   lat: 46.025N  lon: 22.818E  h=  3.0 km
                 erh= 1.4km    erz= 1.8km
   nr= 22        gap= 68       rms=0.64
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
DEV   17.1 157    PgC   6:58:12.82    0.21
                  Sg      58:15.70    0.68
SURR  61.7 241    PgD   6:58:20.91    0.37
                  Sg      58:28.60   -0.54
GZR   70.3 183    PgC   6:58:22.22    0.15
                  Sg      58:31.60   -0.27
DRGR  85.6 354    Pg    6:58:25.33    0.51
                  Sg      58:35.10   -1.65
SIRR  93.5 287    PgC   6:58:27.02    0.80
                  Sg      58:38.60   -0.64
CJR   97.3  38    Sg    6:58:39.90   -0.54
LOT   98.0 131    PgC   6:58:26.81   -0.20
                  Sg      58:40.00   -0.66
BZS  103.8 244    Pg    6:58:27.90   -0.16
                  Sg      58:41.26   -1.27
HERR 131.0 194    PnC   6:58:32.40   -0.09
                  Sn      58:49.10   -1.32
MDVR 163.0 212    PnC   6:58:37.29    0.79
                  Sn      58:58.50    0.96
ARCR 166.6  45    Sn    6:58:59.25    0.91
VOIR 185.6 111    PnD   6:58:39.96    0.66
                  Sn      59:02.20   -0.34
```

729.

```
 2019-08-16  time:  7:29:56.47 UTC  ML= 1.5
   lat: 47.852N  lon: 19.118E  h=  0.0 km
                 erh= 2.2km    erz= 298km
   nr=  6        gap=229       rms=0.17
   Locality: Szendehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  14.0 119    Pg    7:29:58.95   -0.03
                  Sg      30:00.87   -0.07
A336  43.3 348    Pg    7:30:04.09   -0.12
                  Sg      30:10.34    0.09
PSZ   58.6  83    Pg    7:30:07.22    0.29
                  Sg      30:14.82   -0.27
```

730.

```
 2019-08-16  time:  8:21:14.34 UTC  ML= 1.6
   lat: 47.008N  lon: 22.326E  h=  0.0 km
                 erh= 2.1km    erz= 2.6km
   nr= 16        gap=155       rms=0.71
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  37.9 129    Pg    8:21:21.42    0.32
                  Sg      21:26.47    0.09
MESR  49.9  72    Sg    8:21:30.60    0.41
MARR  70.8 121    PgC   8:21:27.03    0.05
                  Sg      21:36.20   -0.64
CEI   76.0   8    Sg    8:21:39.60    1.12
SIRR  96.8 212    PgC   8:21:31.76    0.13
                  Sg      21:43.80   -1.31
CJR  102.4 109    Sg    8:21:46.40   -0.47
TRPA 125.8   7    Pg    8:21:36.42   -0.39
                  Sg      21:52.30   -2.04
BZS  164.0 199    Pn    8:21:42.38    0.56
                  Sn      22:01.94   -1.31
GZR  182.8 169    PnC   8:21:44.95    0.79
                  Sn      22:07.20   -0.22
LOT  206.1 147    Sn    8:22:13.40    0.81
```

731.

```
 2019-08-16  time:  8:29:50.19 UTC  ML= 2.7
   lat: 48.221N  lon: 21.251E  h=  0.0 km
                 erh= 1.3km    erz= 2.1km
   nr= 10        gap=106       rms=0.32
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   8.4 354    Pg    8:29:52.01    0.32
                  Sg      29:53.12    0.26
KECS  63.8 297    Pg    8:30:01.73    0.15
                  Sg      30:09.89   -0.57
TRPA  96.4  96    Sg    8:30:21.03    0.21
PSZ  106.5 252    Sg    8:30:24.35    0.30
KOLS 109.4  44    Pg    8:30:09.29   -0.44
                  Sg      30:24.76   -0.20
A336 167.3 270    Sn    8:30:39.87    0.03
DRGR 193.3 145    Sn    8:30:45.21   -0.40
```

732.

```
 2019-08-16  time:  8:41:52.97 UTC  ML= 1.3
   lat: 46.084N  lon: 18.083E  h=  0.0 km
                 erh= 2.8km    erz= 600km
   nr= 11        gap=226       rms=0.50
   Locality: Kővágótőttős
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   1.4  69    PgU   8:41:53.32    0.11
                  Sg      41:54.42    1.01
PKSV  25.4 149    Pg    8:41:57.79    0.29
                  Sg      42:01.76    0.73
PKSM  45.4  72    Pg    8:42:00.65   -0.43
                  Sg      42:06.39   -1.01
MORH  45.8  71    Pg    8:42:00.68   -0.46
                  Sg      42:06.77   -0.74
PKS9  57.9  15    Pg    8:42:03.30   -0.01
PKB5  75.8  41    Pg    8:42:06.70    0.19
                  Sg      42:17.71    0.63
```

733.

```
 2019-08-16  time: 10:00:58.58 UTC  ML= 1.4
   lat: 47.565N  lon: 16.354E  h=  0.0 km
                 erh= 1.4km    erz= 3.0km
   nr= 10        gap=134       rms=0.41
   Locality: Austria
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
RONA  15.6 344    Pg   10:01:01.26   -0.10
                  Sg      01:03.39   -0.14
SOP   20.2  49    Pg   10:01:02.32    0.14
                  Sg      01:05.06    0.06
CONA  54.7 318    Pg   10:01:08.42    0.07
                  Sg      01:15.63   -0.35
ARSA  71.8 241    Pg   10:01:12.29    0.89
                  Sg      01:20.90   -0.51
KOGS 124.4 184    Sg   10:01:37.86   -0.27
GROS 138.8 208    Sn   10:01:41.21   -0.70
```

734.

```
 2019-08-16  time: 22:11:33.55 UTC  ML= 1.0
   lat: 47.636N  lon: 20.353E  h= 10.0 km
                 erh= 2.2km    erz= 1.9km
   nr= 12        gap=131       rms=0.45
   Locality: Tenk
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   2.0 350    Pg   22:11:35.73    0.35
                  Sg      11:36.43   -0.37
TMP1   2.6 173    Pg   22:11:35.76    0.36
                  Sg      11:36.44   -0.40
HU23   7.7 269    PgD  22:11:36.32    0.51
                  Sg      11:37.23   -0.33
BSZH  38.0 190    Sg   22:11:45.69   -0.35
PSZ   46.5 312    Pg   22:11:42.40    0.35
                  Sg      11:47.86   -0.82
HU02  55.5  13    Pg   22:11:43.60   -0.03
                  Sg      11:51.04   -0.45
ABAH  98.8  42    Sg   22:12:03.22   -1.90
```

735.

```
 2019-08-17  time: 18:00:45.09 UTC  ML= 1.4
   lat: 47.636N  lon: 20.324E  h=  8.9 km
                 erh= 1.9km    erz= 1.9km
   nr= 13        gap= 93       rms=0.46
   Locality: Tenk
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   2.7  42    Pg   18:00:46.91    0.17
                  Sg      00:47.54   -0.49
TMP1   3.5 136    Pg   18:00:46.99    0.20
                  Sg      00:47.89   -0.24
HU23   5.5 269    PgD  18:00:47.49    0.53
BSZH  37.7 187    Pg   18:00:51.68   -0.32
PSZ   45.0 314    Pg   18:00:53.51    0.24
                  Sg      00:58.98   -0.68
```

```
PENC  80.1 282    Sg   18:01:10.20   -0.50
KECS  94.9   7    Sg   18:01:14.68   -0.71
JOS   96.9  10    Pg   18:01:03.28    0.82
ABAH 100.3  43    Pg   18:01:03.12    0.06
                  Sg      01:16.32   -0.76
```

736.

```
 2019-08-17  time: 21:54:30.36 UTC  ML= 1.0
   lat: 47.639N  lon: 20.291E  h=  1.7 km
                 erh= 0.6km    erz= 2.0km
   nr=  6        gap=197       rms=0.14
   Locality: Heves
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   4.6  69    Pg   21:54:31.42    0.17
                  Sg      54:31.92   -0.02
TMP1   5.8 120    Pg   21:54:31.46    0.02
                  Sg      54:31.92   -0.35
PSZ   43.0 316    Pg   21:54:38.07    0.03
                  Sg      54:43.85   -0.18
```

737.

```
 2019-08-18  time:  3:06:54.36 UTC  ML= 1.0
   lat: 47.674N  lon: 20.336E  h=  5.4 km
                 erh= 1.4km    erz= 2.0km
   nr=  7        gap=142       rms=0.18
   Locality: Tenk
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   2.4 158    Pg    3:06:55.65    0.23
                  Sg      06:56.02   -0.22
TMP1   7.0 167    Pg    3:06:55.72   -0.21
HU23   7.7 236    PgD   3:06:56.21    0.16
PSZ   42.8 309    Sg    3:07:07.89   -0.18
HU02  51.8  16    Pg    3:07:03.63   -0.03
                  Sg      07:10.99    0.09
```

738.

```
 2019-08-18  time: 20:27:11.10 UTC  ML=-0.1
   lat: 47.313N  lon: 18.310E  h=  8.5 km
                 erh= 5.2km    erz= 4.6km
   nr=  6        gap=219       rms=0.12
   Locality: Söréd
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   6.7 326    Pg   20:27:13.05    0.01
                  Sg      27:14.33   -0.22
PKSG  10.6  35    Pg   20:27:13.58    0.04
                  Sg      27:15.51    0.07
PKST  21.7 254    Pg   20:27:15.18   -0.09
                  Sg      27:18.77    0.25
```

739.

```
 2019-08-19  time:  0:49:32.25 UTC  ML= 1.2
   lat: 47.585N  lon: 20.288E  h=  3.8 km
                 erh= 3.9km    erz= 5.7km
   nr=  6        gap=207       rms=0.28
   Locality: Heves
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP1   6.0  59    Pg    0:49:33.92    0.39
                  Sg      49:34.53    0.01
TMP2   8.9  30    Pg    0:49:33.93   -0.05
                  Sg      49:34.62   -0.71
BSZH  31.8 183    Pg    0:49:38.00    0.03
                  Sg      49:42.18   -0.24
```

740.

```
 2019-08-19  time:  7:49:24.65 UTC  ML= 1.3
   lat: 48.699N  lon: 18.665E  h=  0.0 km
                 erh= 9.5km    erz= 7.7km
   nr=  9        gap=168       rms=0.94
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
VYHS  26.0 151    Pg    7:49:30.17    0.87
                  Sg      49:33.99    1.07
A336  57.4 154    Sg    7:49:42.02   -0.86
PENC 110.9 156    Sg    7:49:59.20   -0.70
PSZ  125.9 134    Pg    7:49:48.05    0.92
                  Sg      50:02.91   -1.76
MORC 145.1 326    Pn    7:49:50.05    0.27
                  Sn      50:08.48   -0.90
PKSG 146.7 188    Sn    7:50:08.53   -1.21
```

741.

```
 2019-08-19  time: 20:32:31.73 UTC  ML= 1.0
   lat: 47.610N  lon: 20.289E  h=  5.3 km
                 erh= 4.3km    erz=10.2km
   nr=  5        gap=137       rms=0.19
   Locality: Heves
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP1   5.2  86    Pg   20:32:33.32    0.27
TMP2   6.7  42    Pg   20:32:33.22   -0.03
                  Sg      32:34.12   -0.31
BSZH  34.5 183    Sg   20:32:42.72   -0.11
PSZ   45.3 319    Sg   20:32:46.17   -0.05
```

742.

```
 2019-08-20  time:  9:44:23.73 UTC  ML= 1.7
   lat: 45.636N  lon: 18.111E  h=  8.3 km
                 erh= 4.4km    erz= 5.0km
   nr= 12        gap=246       rms=0.49
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  30.2  21    Pg    9:44:29.50    0.18
                  Sg      44:33.09   -0.58
KOVH  50.3 359    Pg    9:44:33.21    0.37
                  Sg      44:39.19   -0.75
PKSM  76.1  33    Pg    9:44:36.96   -0.44
                  Sg      44:48.96    0.90
MORH  76.6  33    Pg    9:44:37.02   -0.47
                  Sg      44:49.06    0.84
PKB4 103.0  22    Sg    9:44:56.39   -0.18
PKS9 106.5   7    Pg    9:44:43.27    0.46
                  Sg      44:57.70    0.01
FRGS 144.2 113    Sn    9:45:05.99   -0.38
```

743.

```
 2019-08-21  time:  0:45:44.92 UTC  ML= 1.2
   lat: 47.635N  lon: 20.284E  h=  1.7 km
                 erh= 0.3km    erz= 1.2km
   nr=  5        gap=204       rms=0.16
   Locality: Heves
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   5.3  66    Pg    0:45:46.08    0.17
                  Sg      45:46.66   -0.02
TMP1   6.0 114    Pg    0:45:46.08    0.05
                  Sg      45:46.60   -0.30
```

```
PSZ   43.0 317    Sg    0:45:58.42   -0.16
```

744.

```
 2019-08-21  time:  2:19:07.63 UTC  ML= 1.1
   lat: 47.629N  lon: 20.296E  h=  0.2 km
                 erh= 0.5km    erz=14.1km
   nr=  5        gap=206       rms=0.11
   Locality: Heves
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   4.8  55    Pg    2:19:08.62    0.13
                  Sg      19:09.04   -0.12
TMP1   4.9 111    Pg    2:19:08.55    0.04
                  Sg      19:09.04   -0.15
PSZ   44.0 317    Sg    2:19:21.54   -0.09
```

745.

```
 2019-08-21  time:  4:52:39.50 UTC  ML= 1.5
   lat: 48.514N  lon: 17.638E  h=  1.2 km
                 erh= 6.5km    erz= 4.8km
   nr= 14        gap=208       rms=1.23
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
MODS  30.9 240   ePg    4:52:42.60   -2.42
                 eSg      52:46.90   -2.42
ZST   53.1 228    Pg    4:52:49.87    0.88
                  Sg      52:56.68    0.29
A338  76.8 136    Sg    4:53:04.74    0.84
VYHS  88.6  91    Pg    4:52:55.69    0.37
                  Sg      53:06.55   -1.11
A336 105.6 107    Pg    4:52:58.28   -0.07
                  Sg      53:11.77   -1.29
RONA 134.8 228    Pn    4:53:04.95    1.76
                  Sn      53:21.01   -0.67
PKST 142.7 168    Sn    4:53:22.69   -0.72
CONA 147.2 244    Pn    4:53:06.99    2.26
                  Sn      53:24.03   -0.38
```

746.

```
 2019-08-21  time:  8:21:42.78 UTC  ML= 1.8
   lat: 47.850N  lon: 19.141E  h=  0.0 km
                 erh= 1.8km    erz= 576km
   nr=  8        gap=145       rms=0.41
   Locality: Szendehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A270   9.2 267    Pg    8:21:44.39   -0.03
                  Sg      21:44.96   -0.73
PENC  12.4 122    Pg    8:21:45.36    0.36
                  Sg      21:46.56   -0.17
A336  43.9 346    Sg    8:21:56.68   -0.06
PSZ   56.9  82    Sg    8:22:00.22   -0.64
VYHS  75.1 342   ePg    8:21:56.80    0.60
                 eSg      22:06.60   -0.07
```

747.

```
 2019-08-21  time:  8:31:43.79 UTC  ML= 1.5
   lat: 47.114N  lon: 17.992E  h=  0.0 km
                 erh= 4.1km    erz= 996km
   nr= 10        gap=174       rms=0.79
   Locality: Litér
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  16.4  11    Pg    8:31:46.46   -0.27
                  Sg      31:49.28    0.27
TIH   25.0 198    Sg    8:31:52.97    1.25
CSKK  34.4  36    Sg    8:31:55.00    0.29
PKSG  43.2  44    Pg    8:31:51.59    0.09
                  Sg      31:57.46   -0.05
PKB4  83.0 146    Sg    8:32:12.52    2.34
MORH 111.6 153    Sg    8:32:18.10   -1.17
PKSM 111.9 154    Sg    8:32:18.35   -1.01
KOVH 114.3 176    Sg    8:32:19.52   -0.61
```

748.

```
 2019-08-21  time: 10:33:37.36 UTC  ML= 1.6
   lat: 48.472N  lon: 19.549E  h=  0.0 km
                 erh= 2.5km    erz= 605km
   nr=  8        gap=176       rms=0.43
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A336  48.7 237    Pg   10:33:46.37    0.32
                  Sg      33:52.72   -0.10
VYHS  52.7 273    Pg   10:33:46.88    0.11
                  Sg      33:53.37   -0.75
PSZ   66.8 157    Pg   10:33:49.49    0.21
                  Sg      33:58.01   -0.57
KECS  69.3  89    Pg   10:33:50.10    0.37
                  Sg      33:58.36   -1.02
```

749.

```
 2019-08-21  time: 13:39:41.59 UTC  ML= 2.2
   lat: 47.498N  lon: 19.827E  h= 10.0 km
                 erh= 1.0km    erz= 1.0km
   nr= 40        gap= 54       rms=0.62
   Locality: Jászfelsőszentgyörgy
   Comments:

sta   dist azm  phase  hr mn  sec     res
BSZH  39.9 123   PgU  13:39:48.46   -0.47
                  Sg      39:54.67    0.02
TMP1  42.0  72    Pg   13:39:49.62    0.33
                  Sg      39:55.42    0.12
TMP2  42.9  66    Pg   13:39:49.48    0.02
                  Sg      39:55.43   -0.17
PSZ   47.1   6    Pg   13:39:50.38    0.20
                  Sg      39:56.97    0.09
PENC  52.3 308    Pg   13:39:51.32    0.22
                  Sg      39:58.00   -0.53
BUD   60.5 269    Sg   13:40:01.38    0.29
PKSN  66.8 177    Pg   13:39:54.14    0.49
                  Sg      40:02.15   -0.91
PKS7  71.0 225    Pg   13:39:54.12   -0.28
                  Sg      40:03.72   -0.67
PKB2 101.7 206    Pg   13:39:59.63   -0.21
                  Sg      40:12.32   -1.76
PKS6 101.8 191    Pg   13:40:00.83    0.98
                  Sg      40:12.15   -1.94
A336 102.6 323    Pg   13:40:00.04    0.04
                  Sg      40:12.98   -1.38
PKSG 109.0 264    Pn   13:40:01.05    0.12
                  Sn      40:15.18   -0.84
KECS 120.1  24    Pn   13:40:02.18   -0.14
                  Sn      40:17.40   -1.10
PKS2 121.1 203    Sn   13:40:18.06   -0.66
PKB3 128.7 202    Sn   13:40:19.65   -0.75
PKB5 130.2 220    Pn   13:40:03.34   -0.23
                  Sn      40:20.21   -0.51
VYHS 133.2 326    Pn   13:40:04.43    0.48
                  Sn      40:21.21   -0.19
PKST 137.9 259    Pn   13:40:06.01    1.47
                  Sn      40:21.60   -0.85
ABAH 138.0  50    Pn   13:40:04.86    0.31
                  Sn      40:22.25   -0.21
PKB4 145.1 220    Pn   13:40:06.30    0.87
                  Sn      40:24.93    0.90
```

```
PKS9 155.2 229    Sn   13:40:27.80    1.52
MORH 168.6 212    Sn   13:40:29.84    0.58
PKSM 169.1 212    Sn   13:40:30.21    0.84
```

750.

```
 2019-08-21  time: 20:16:21.81 UTC  ML= 1.0
   lat: 47.632N  lon: 20.309E  h=  2.0 km
                 erh= 4.8km    erz=12.5km
   nr=  6        gap=197       rms=0.30
   Locality: Heves
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   3.9  50    Pg   20:16:22.62    0.03
                  Sg      16:23.23    0.03
TMP1   4.2 119    Pg   20:16:22.56   -0.08
                  Sg      16:23.06   -0.22
PSZ   44.5 316    Pg   20:16:30.20    0.43
                  Sg      16:35.28   -0.69
```

751.

```
 2019-08-22  time:  7:38:42.18 UTC  ML= 0.7
   lat: 47.319N  lon: 18.420E  h=  0.0 km
                 erh= 2.6km    erz= 590km
   nr=  7        gap=187       rms=0.39
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.4 345    Pg    7:38:43.65   -0.04
                  Sg      38:44.30   -0.57
CSKK  13.0 292    Pg    7:38:44.80    0.29
                  Sg      38:45.98   -0.34
PKST  29.9 257    Pg    7:38:48.09    0.57
                  Sg      38:51.20   -0.48
PKSM 124.2 172    Sg    7:39:21.38   -0.28
```

752.

```
 2019-08-22  time:  9:39:29.26 UTC  ML= 0.8
   lat: 47.194N  lon: 18.275E  h=  0.0 km
                 erh= 2.7km    erz= 354km
   nr=  6        gap=270       rms=0.21
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.9 357    Pg    9:39:32.98    0.35
                  Sg      39:35.17   -0.08
PKST  19.6 292    Pg    9:39:32.76   -0.01
                  Sg      39:35.32   -0.18
PKSG  23.7  22    Pg    9:39:33.26   -0.23
                  Sg      39:36.87    0.08
```

753.

```
 2019-08-23  time:  9:25:53.15 UTC  ML= 2.5
   lat: 48.213N  lon: 21.274E  h=  0.0 km
                 erh= 4.7km    erz= 814km
   nr=  5        gap=210       rms=0.38
   Locality: Mád
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   9.6 345    PgU   9:25:55.17    0.30
                  Sg      25:56.54    0.34
KECS  65.7 297    Sg    9:26:13.62   -0.42
PSZ  107.9 252    Sg    9:26:27.47    0.02
KOLS 108.9  43   eSg    9:26:27.10   -0.66
```

754.

```
 2019-08-23  time: 10:26:34.71 UTC  ML= 1.5
   lat: 45.920N  lon: 17.655E  h= 10.0 km
                 erh= 3.2km    erz= 5.1km
   nr=  9        gap=171       rms=0.36
   Locality: Potony
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOVH  39.2  61    Pg   10:26:42.34    0.40
                  Sg      26:48.34    0.77
PKSV  46.5  94    Pg   10:26:43.37    0.17
                  Sg      26:49.75   -0.07
PKSM  82.9  67    Pg   10:26:49.44   -0.19
                  Sg      27:00.78   -0.48
MORH  83.3  67    Pg   10:26:49.49   -0.20
                  Sg      27:00.60   -0.78
ZAG  129.4 266    Pn   10:26:56.71    0.11
```

755.

```
 2019-08-24  time:  4:36:00.98 UTC  ML= 1.8
   lat: 46.750N  lon: 21.255E  h= 13.9 km
                 erh= 2.3km    erz= 2.4km
   nr= 24        gap= 49       rms=0.80
   Locality: Doboz
   Comments:

sta   dist azm  phase  hr mn  sec     res
SIRR  62.0 150    PgC   4:36:12.00   -0.32
                  Sg      36:20.20   -0.96
PKSN 107.2 279    Sn    4:36:31.38   -2.75
DRGR 111.3  88    Pn    4:36:20.03   -0.09
                  Sn      36:34.09   -0.95
BZS  129.0 168    Pn    4:36:22.44    0.11
                  Sn      36:37.98   -1.00
SURR 129.4 149    PnC   4:36:22.66    0.28
                  Sn      36:38.70   -0.36
PKS6 130.5 263    Sn    4:36:37.91   -1.39
MESR 136.4  71    PnD   4:36:23.48    0.23
                  Sn      36:40.60   -0.01
MARR 142.7  93    PnC   4:36:24.67    0.64
                  Sn      36:42.60    0.58
PSZ  165.7 322    Pn    4:36:27.54    0.64
                  Sn      36:45.14   -1.98
ABAH 171.9 360    Sn    4:36:48.35   -0.14
TRPA 181.5  32    Pn    4:36:29.69    0.82
GZR  191.3 142    PnC   4:36:30.53    0.44
MORH 209.1 254    PnD   4:36:32.61    0.30
PKSM 209.5 253    Sn    4:36:58.59    1.76
FRGS 211.6 212    Pn    4:36:33.43    0.81
                  Sn      36:58.51    1.21
PKSG 229.0 288    Sn    4:37:03.71    2.54
```

756.

```
 2019-08-24  time:  8:55:55.27 UTC  ML= 1.4
   lat: 48.035N  lon: 19.644E  h=  0.0 km
                 erh= 1.2km    erz= 445km
   nr= 13        gap=101       rms=0.37
   Locality: Lucfalva
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
HU03  14.9 193    Pg    8:55:57.83   -0.10
                  Sg      55:59.61   -0.39
PSZ   22.7 125    PgU   8:55:59.85    0.53
                  Sg      56:01.84   -0.64
PENC  38.4 225    Pg    8:56:02.19    0.07
                  Sg      56:08.11    0.65
A336  52.9 295    Pg    8:56:04.40   -0.31
                  Sg      56:11.83   -0.25
HU02  66.3  82    Pg    8:56:07.08   -0.04
VYHS  78.8 310    Pg    8:56:09.81    0.47
```

```
                 Sg      56:19.36   -0.96
KECS  80.0  51   ePg    8:56:09.40   -0.15
JOS   84.0  52    Pg    8:56:10.39    0.13
```

757.

```
 2019-08-26  time:  8:17:18.61 UTC  ML= 1.2
   lat: 47.336N  lon: 18.444E  h=  0.0 km
                 erh= 2.1km    erz= 892km
   nr= 12        gap=106       rms=0.73
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  14.2 282    Pg    8:17:21.06   -0.09
                  Sg      17:22.71   -0.41
PKST  32.1 255    Pg    8:17:23.87   -0.48
                  Sg      17:29.15    0.33
EGYH  84.5 276    Sg    8:17:46.10    0.64
PKB5  85.3 165    Sg    8:17:47.13    1.41
A336 108.1  23    Pg    8:17:38.92    1.00
                  Sg      17:51.82   -1.16
MORH 125.4 173    Sg    8:17:57.65   -0.83
PKSM 125.8 173    Sg    8:17:57.65   -0.96
PSZ  126.8  59    Pg    8:17:41.67    0.41
                  Sg      17:58.20   -0.73
```

758.

```
 2019-08-26  time:  9:14:06.25 UTC  ML= 1.7
   lat: 48.637N  lon: 20.851E  h=  0.0 km
                 erh= 5.0km    erz= 3.5km
   nr=  7        gap=239       rms=0.54
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  32.0 238    Pg    9:14:12.17    0.21
                  Sg      14:15.73   -0.68
ABAH  47.5 143    Sg    9:14:21.09   -0.27
PSZ  106.9 222    Pg    9:14:26.02    0.68
                  Sg      14:40.33    0.09
A336 144.2 252    Sn    9:14:49.50   -1.29
VYHS 149.6 264    Sn    9:14:51.78   -0.20
```

759.

```
 2019-08-26  time:  9:14:43.74 UTC  ML= 1.7
   lat: 48.585N  lon: 20.785E  h=  0.0 km
                 erh= 1.1km    erz= 1.5km
   nr=  8        gap=228       rms=0.22
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.9 243    Pg    9:14:48.30    0.12
                  Sg      14:51.78    0.14
ABAH  46.5 134    Pg    9:14:52.21    0.17
                  Sg      14:58.25   -0.27
PSZ   99.4 222    Pg    9:15:01.63    0.15
                  Sg      15:15.03   -0.29
VYHS 144.3 266    Pn    9:15:08.52   -0.25
                  Sn      15:26.25   -2.04*
```

760.

```
 2019-08-26  time: 21:09:16.53 UTC  ML= 0.8
   lat: 45.958N  lon: 17.911E  h=  5.0 km
                 erh= 6.8km    erz=13.6km
   nr=  7        gap=338       rms=0.38
   Locality: Sumony
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOVH  20.6  45    Pg   21:09:19.78   -0.53
                  Sg      09:23.70    0.44
PKSM  63.1  64    Pg   21:09:28.06    0.22
                  Sg      09:36.29   -0.38
MORH  63.5  63    Pg   21:09:28.15    0.24
                  Sg      09:36.40   -0.39
PKB4  80.2  42    Sg   21:09:42.49    0.41
```

761.

```
 2019-08-26  time: 21:24:18.10 UTC  ML= 1.2
   lat: 45.931N  lon: 17.915E  h= 11.3 km
                 erh= 1.8km    erz= 0.8km
   nr= 11        gap=320       rms=0.19
   Locality: Okorág
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOVH  22.6  39    Pg   21:24:22.53   -0.09
                  Sg      24:26.51    0.36
PKSM  64.3  61    Pg   21:24:29.70   -0.06
                  Sg      24:38.93    0.07
MORH  64.7  61    Pg   21:24:29.69   -0.15
                  Sg      24:38.95   -0.04
PKS9  78.2  21    Sg   21:24:43.18   -0.03
PKB4  82.3  40    Pg   21:24:33.20    0.25
                  Sg      24:43.35   -1.17
PKB5  97.2  41    S*   21:24:49.00   -0.22
PKS2 118.0  58    Sn   21:24:54.33    0.09
```

762.

```
 2019-08-26  time: 21:55:52.02 UTC  ML= 0.8
   lat: 47.639N  lon: 20.310E  h=  2.4 km
                 erh= 7.7km    erz=15.1km
   nr=  6        gap=186       rms=0.51
   Locality: Tenk
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   3.3  60    Pg   21:55:52.78    0.03
                  Sg      55:52.98   -0.34
TMP3   4.6 129    Pg   21:55:52.88   -0.06
                  Sg      55:53.29   -0.37
PSZ   44.0 315    Pg   21:56:00.74    0.86
                  Sg      56:05.14   -0.87
```

763.

```
 2019-08-27  time:  8:09:37.82 UTC  ML= 1.6
   lat: 47.843N  lon: 19.874E  h=  0.0 km
                 erh= 5.1km    erz= ***km
   nr=  9        gap=199       rms=0.86
   Locality: Gyöngyösoroszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ    8.5  10    Pg    8:09:39.78    0.45
                  Sg      09:41.60    1.09
PENC  44.8 262    Pg    8:09:45.99    0.17
                  Sg      09:52.27    0.22
A336  78.3 304    Sg    8:10:01.97   -0.75
KECS  84.4  33    Sg    8:10:04.99    0.33
VYHS 105.8 313    Pg    8:09:57.10    0.38
                  Sg      10:09.42   -2.03
ABAH 113.5  64    Sg    8:10:11.89   -2.02
```

764.

```
 2019-08-27  time:  9:13:08.66 UTC  ML= 1.5
   lat: 48.588N  lon: 20.743E  h=  0.0 km
                 erh= 2.1km    erz= 3.8km
   nr= 13        gap= 89       rms=0.63
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.3 239    Pg    9:13:13.36    0.71
                  Sg      13:15.59   -0.16
ABAH  49.0 131    Pg    9:13:17.41    0.00
                  Sg      13:23.34   -0.89
PSZ   97.6 220    Pg    9:13:26.46    0.38
                  Sg      13:38.68   -0.99
STHS  99.2  22   ePg    9:13:25.90   -0.47
                 eSg      13:39.40   -0.78
LANS 112.6 304    Pg    9:13:28.79    0.02
KOLS 118.8  71   ePg    9:13:31.20    1.32
                 eSg      13:46.10   -0.33
VYHS 141.2 266    Pn    9:13:33.53    0.23
                  Sn      13:51.27   -1.26
```

765.

```
 2019-08-27  time:  9:53:55.20 UTC  ML= 0.7
   lat: 47.208N  lon: 18.293E  h=  0.0 km
                 erh= 1.7km    erz= 3.2km
   nr=  8        gap=120       rms=0.36
   Locality: Moha
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  17.4 352    Pg    9:53:58.53    0.23
                  Sg      54:00.63   -0.10
PKST  20.4 286    Pg    9:53:58.77   -0.07
                  Sg      54:01.45   -0.23
MORH 113.5 166    Sg    9:54:30.95   -0.34
PKSM 113.9 166    Pg    9:54:16.17    0.63
                  Sg      54:31.12   -0.29
PSZ  144.1  57    Sn    9:54:39.00   -0.69
```

766.

```
 2019-08-27  time: 11:36:28.06 UTC  ML= 1.6
   lat: 48.584N  lon: 20.721E  h=  0.0 km
                 erh= 2.7km    erz= 5.5km
   nr=  9        gap=107       rms=0.69
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  20.7 237    Pg   11:36:32.67    0.92
                  Sg      36:35.07    0.44
ABAH  50.0 130    Pg   11:36:36.55   -0.44
PSZ   96.2 220    Pg   11:36:44.47   -0.76
                  Sg      36:59.02    0.39
STHS 100.2  22   ePg   11:36:46.30    0.35
LANS 111.4 304   ePg   11:36:48.30    0.34
                 eSg      37:02.70   -0.78
VYHS 139.5 266    Sn   11:37:09.83   -1.72
```

767.

```
 2019-08-28  time:  8:57:36.83 UTC  ML= 1.7
   lat: 48.359N  lon: 19.823E  h=  0.0 km
                 erh= 1.9km    erz= 572km
   nr=  8        gap=153       rms=0.42
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   49.3 174    Pg    8:57:46.07    0.44
                  Sg      57:52.48   -0.02
KECS  51.0  74    Pg    8:57:46.39    0.46
                  Sg      57:52.51   -0.51
A336  62.7 257    Sg    8:57:56.82    0.06
VYHS  74.6 282    Sg    8:58:00.13   -0.40
ABAH 105.3  94    Sg    8:58:09.65   -0.64
A338 115.8 251    Sg    8:58:13.28   -0.37
```

768.

```
 2019-08-28  time:  9:49:35.85 UTC  ML= 0.9
   lat: 47.236N  lon: 18.330E  h=  0.0 km
                 erh= ---km    erz= ---km
   nr=  4        gap=188       rms=0.19
   Locality: Moha
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  15.0 340    Sg    9:49:40.43   -0.20
PKST  22.5 276    Pg    9:49:40.08    0.21
                  Sg      49:42.79   -0.21
PKSM 116.4 168    Sg    9:50:12.81   -0.03
```

769.

```
 2019-08-28  time: 10:03:21.12 UTC  ML= 1.6
   lat: 47.872N  lon: 19.135E  h=  0.0 km
                 erh= 2.0km    erz= 382km
   nr= 10        gap=213       rms=0.30
   Locality: Nőtincs
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  14.2 129    Pg   10:03:23.68    0.02
                  Sg      03:25.31   -0.34
A336  41.4 346    Pg   10:03:28.64    0.12
                  Sg      03:34.75    0.46
PSZ   57.1  85    Pg   10:03:31.57    0.26
                  Sg      03:39.50    0.25
VYHS  72.7 342    Pg   10:03:34.09    0.00
                  Sg      03:43.84   -0.37
KECS 121.3  56   ePg   10:03:42.20   -0.58
                 eSg      03:58.50   -1.18*
```

770.

```
 2019-08-29  time:  7:47:52.44 UTC  ML= 1.1
   lat: 47.300N  lon: 18.429E  h=  0.0 km
                 erh= 3.3km    erz= 7.9km
   nr= 10        gap=114       rms=1.03
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  10.6 344    Pg    7:47:54.03   -0.31
                  Sg      47:54.68   -1.14
CSKK  14.6 299    Pg    7:47:55.66    0.62
                  Sg      47:56.96   -0.11
PKST  30.2 261    Sg    7:48:01.56   -0.49
MORH 121.6 172    Sg    7:48:31.06   -0.04
PKSM 122.0 172    Sg    7:48:31.03   -0.20
PSZ  129.9  58    Sg    7:48:33.15   -0.57
VYHS 136.2  13   ePn    7:48:20.80    4.34
                 eSn      48:34.90   -0.29
```

771.

```
 2019-08-29  time:  8:22:25.62 UTC  ML= 1.3
   lat: 46.126N  lon: 18.060E  h=  0.0 km
                 erh= 2.0km    erz= 297km
   nr=  9        gap=255       rms=0.23
   Locality: Hetvehely
   Comments: probably explosion
```

```
sta   dist azm  phase  hr mn  sec     res
KOVH   5.2 144    PgU   8:22:26.49   -0.05
                  Sg      22:27.80    0.54
PKSV  30.3 151    Pg    8:22:31.02   -0.01
                  Sg      22:35.24    0.00
PKSM  45.9  78    Pg    8:22:33.75   -0.06
                  Sg      22:40.08   -0.12
MORH  46.2  78    Pg    8:22:33.82   -0.04
                  Sg      22:39.96   -0.34
PKB4  58.7  45    Sg    8:22:45.09    0.81
```

772.

```
 2019-08-29  time:  8:33:53.11 UTC  ML= 2.0
   lat: 48.235N  lon: 21.244E  h=  0.0 km
                 erh= 1.3km    erz= 2.6km
   nr= 13        gap=105       rms=0.39
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   6.8 357    PgU   8:33:54.41    0.09
                  Sg      33:55.66    0.40
KECS  62.6 296    Pg    8:34:04.08   -0.20
                  Sg      34:12.33   -0.67
TRPA  97.0  97    Pg    8:34:10.51    0.07
                  Sg      34:23.45   -0.50
PSZ  106.5 251    Pg    8:34:12.86    0.73
                  Sg      34:26.41   -0.56
KOLS 108.6  44   ePg    8:34:12.60    0.10
                 eSg      34:27.30   -0.33
VYHS 180.7 279   ePn    8:34:22.70    0.03
                 eSn      34:45.30   -0.43
DRGR 194.9 145    Pn    8:34:24.56    0.12
                  Sn      34:46.21   -2.67*
```

773.

```
 2019-08-29  time:  8:54:36.11 UTC  ML= 0.9
   lat: 46.167N  lon: 18.288E  h=  0.0 km
                 erh= 0.7km    erz= 125km
   nr=  8        gap=200       rms=0.09
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.0 239    Pg    8:54:39.15    0.01
                  Sg      54:41.58    0.07
PKSM  27.7  80    Pg    8:54:41.00   -0.06
                  Sg      54:45.12    0.20
MORH  28.0  79    Pg    8:54:41.07   -0.04
                  Sg      54:45.05    0.03
PKSV  31.1 185    Pg    8:54:41.55   -0.12
                  Sg      54:46.11    0.11
```

774.

```
 2019-08-30  time:  6:06:12.46 UTC  ML= 0.9
   lat: 47.188N  lon: 18.199E  h=  0.0 km
                 erh= 2.3km    erz= 582km
   nr=  7        gap=149       rms=0.39
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  14.8 302    Pg    6:06:15.01   -0.09
                  Sg      06:17.28    0.12
CSKK  20.0  13    Pg    6:06:15.60   -0.43
                  Sg      06:19.10    0.28
MORH 113.3 163    Sg    6:06:48.26   -0.21
PKSM 113.7 163    Pg    6:06:33.45    0.69
                  Sg      06:48.26   -0.33
```

775.

```
 2019-08-30  time:  7:43:17.99 UTC  ML= 1.3
   lat: 47.083N  lon: 17.902E  h=  0.0 km
                 erh= 4.8km    erz= 627km
   nr= 10        gap=237       rms=0.49
   Locality: Veszprém
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  22.0  27    Pg    7:43:21.42   -0.50
                  Sg      43:24.58   -0.41
CSKK  41.4  41    Pg    7:43:25.08   -0.29
                  Sg      43:31.45    0.31
PKSG  50.5  47    Pg    7:43:27.27    0.26
                  Sg      43:34.35    0.30
MORH 111.9 149    Pg    7:43:38.57    0.61
                  Sg      43:53.09   -0.45
PKSM 112.1 150    Pg    7:43:38.47    0.46
                  Sg      43:52.21   -1.42
```

776.

```
 2019-08-30  time:  7:47:05.27 UTC  ML= 1.1
   lat: 47.860N  lon: 19.103E  h=  0.0 km
                 erh= 2.6km    erz= 378km
   nr=  6        gap=224       rms=0.23
   Locality: Szendehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  15.5 120    Pg    7:47:08.06    0.03
                  Sg      47:09.34   -0.84
A336  42.2 349    Sg    7:47:18.63   -0.04
PSZ   59.5  84    Pg    7:47:16.12    0.22
                  Sg      47:24.33    0.14
VYHS  73.2 344    Pg    7:47:18.23   -0.11
```

777.

```
 2019-08-30  time:  7:56:52.47 UTC  ML= 1.1
   lat: 47.546N  lon: 18.491E  h=  0.0 km
                 erh= 1.7km    erz= 587km
   nr= 11        gap=109       rms=0.47
   Locality: Szárliget
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  18.8 204    Pg    7:56:55.72   -0.10
                  Sg      56:59.12    0.69
CSKK  26.8 220    Pg    7:56:56.74   -0.51
                  Sg      57:01.49    0.51
SRO   32.5 336    Sg    7:57:03.46    0.65
BUD   40.7 100    Sg    7:57:06.42    1.00
PKST  47.0 227    Pg    7:57:00.40   -0.46
                  Sg      57:07.52    0.11
VYHS 108.5  14    Pg    7:57:11.95    0.11
                  Sg      57:26.55   -0.40
PSZ  113.1  69    Sg    7:57:27.99   -0.43
```

778.

```
 2019-08-30  time: 15:14:55.59 UTC  ML= 2.3
   lat: 48.537N  lon: 22.851E  h= 12.1 km
                 erh= 3.0km    erz= 2.3km
   nr= 18        gap=125       rms=0.75
   Locality: Ukraine
   Comments:

sta   dist azm  phase  hr mn  sec     res
TRPA  50.8 207    Pg   15:15:05.54    0.63
                  Sg      15:12.13   -0.06
KOLS  61.2 316    Pg   15:15:06.15   -0.59
                  Sg      15:16.77    1.34
```

```
BMR  107.5 153    PnC  15:15:13.75   -0.72
                  Sn      15:29.30    0.10
KWP  122.2 355    Pn   15:15:16.93    0.62
ABAH 122.3 257    Pn   15:15:15.39   -0.93
                  Sn      15:32.56    0.07
STHS 153.0 310    Pn   15:15:19.59   -0.57
MESR 154.4 177    Sn   15:15:40.50    0.88
DRGR 194.3 183    Pn   15:15:25.01   -0.30
                  Sn      15:48.50    0.02
ARCR 196.8 145    Pn   15:15:24.37   -1.24
BURA 203.9 120    PnC  15:15:27.57    1.06
                  Sn      15:52.80    2.18
MARR 207.9 174    PnD  15:15:27.26    0.26
                  Sn      15:52.70    1.21

779.
```

```
 2019-08-30  time: 21:06:54.70 UTC  ML= 1.8
   lat: 46.116N  lon: 16.601E  h= 10.0 km
                 erh= 2.4km    erz= 2.5km
   nr= 22        gap=135       rms=0.82
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  41.6  19    Pg   21:07:02.32   -0.02
                  Sg      07:08.01   -0.29
KOGS  45.7 324    PgU  21:07:03.12    0.06
                  Sg      07:09.01   -0.56
PTJ   55.3 244    Pg   21:07:04.69   -0.04
                  Sg      07:11.62   -0.93
ZAG   56.8 236    Pg   21:07:05.52    0.52
                  Sg      07:13.68    0.64
GROS  92.9 294    Sg   21:07:23.70   -0.71
CRES  94.3 250    Pg   21:07:11.40   -0.24
                  Sg      07:24.38   -0.47
KOVH 116.0  92    Pn   21:07:13.00   -1.91
                  Sn      07:28.06   -2.62
PERS 128.0 297    Pn   21:07:17.08    0.67
                  Sn      07:33.58    0.24
PKSV 130.4 101    Sn   21:07:32.00   -1.89
EGYH 155.0  21    Pn   21:07:20.68    0.89
PKSM 158.0  86    Pn   21:07:20.85    0.70
                  Sn      07:41.05    1.04
MORH 158.2  86    Pn   21:07:21.07    0.89
                  Sn      07:40.67    0.61
PKB4 160.0  75    Sn   21:07:41.42    0.96

780.
```

```
 2019-08-30  time: 22:14:55.31 UTC  ML= 1.5
   lat: 46.128N  lon: 16.578E  h= 10.0 km
                 erh= 1.6km    erz= 1.7km
   nr= 20        gap=132       rms=0.53
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  41.0  22    Pg   22:15:02.78   -0.07
                  Sg      15:08.31   -0.42
KOGS  43.7 325    Pg   22:15:03.54    0.23
                  Sg      15:09.40   -0.15
PTJ   54.3 242    Pg   22:15:05.22    0.06
                  Sg      15:12.59   -0.26
ZAG   56.1 234    Pg   22:15:06.10    0.61
GROS  90.8 294    Sg   22:15:23.93   -0.42
CRES  93.1 249    Pg   22:15:11.79   -0.24
                  Sg      15:24.75   -0.33
KOVH 117.8  92    Pn   22:15:14.50   -1.25
                  Sn      15:28.70   -2.99*
PERS 125.8 297    Pn   22:15:17.41    0.66
                  Sn      15:32.99   -0.49
PKSV 132.4 102    Pn   22:15:17.14   -0.43
PKSM 159.6  87    Pn   22:15:21.56    0.59
                  Sn      15:41.48    0.49
MORH 159.9  86    Pn   22:15:21.77    0.77
                  Sn      15:41.05    0.01
PKB4 161.4  75    Sn   22:15:41.91    0.54

781.
```

```
 2019-08-30  time: 22:17:25.04 UTC  ML= 1.5
   lat: 46.090N  lon: 16.633E  h= 12.4 km
                 erh= 2.1km    erz= 1.7km
   nr= 11        gap=149       rms=0.44
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  43.6  15    Pg   22:17:33.40    0.27
                  Sg      17:39.13   -0.32
KOGS  49.5 323    Pg   22:17:34.25    0.09
                  Sg      17:39.96   -1.31
PTJ   56.4 248    Sg   22:17:42.89   -0.52
ZAG   57.5 240    Sg   22:17:43.97    0.25
CRES  95.8 252    P*   22:17:42.53    0.32
                  S*      17:55.60    0.00
KOVH 113.4  90    Pn   22:17:44.88    0.24
                  Sn      17:58.83   -1.09
PERS 131.5 297    Sn   22:18:04.20    0.26

782.
```

```
 2019-08-30  time: 22:19:21.31 UTC  ML= 1.6
   lat: 46.127N  lon: 16.606E  h= 10.0 km
                 erh= 1.9km    erz= 1.8km
   nr= 21        gap=133       rms=0.66
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  40.4  19    Pg   22:19:29.00    0.27
                  Sg      19:34.79    0.27
KOGS  45.0 323    Pg   22:19:29.81    0.27
                  Sg      19:35.78   -0.19
PTJ   56.1 243    Pg   22:19:31.46   -0.03
                  Sg      19:38.63   -0.80
ZAG   57.8 235    Pg   22:19:32.33    0.55
                  Sg      19:40.51    0.55
GROS  92.8 294    Sg   22:19:49.71   -1.27
CRES  95.1 249    Pg   22:19:38.15   -0.23
                  Sg      19:51.30   -0.40
KOVH 115.6  92    Pn   22:19:39.69   -1.79
                  Sn      19:54.44   -2.77
PERS 127.8 296    Pn   22:19:43.73    0.74
                  Sn      19:59.91    0.00
PKSV 130.2 102    Pn   22:19:43.24   -0.06
ARSA 149.9 326    Sn   22:20:04.78   -0.04
PKSM 157.5  87    Sn   22:20:06.66    0.15
MORH 157.7  86    Pn   22:19:47.56    0.83
                  Sn      20:06.83    0.27
PKB4 159.3  75    Sn   22:20:07.52    0.61

783.
```

```
 2019-08-30  time: 22:41:22.05 UTC  ML= 1.5
   lat: 46.097N  lon: 16.630E  h= 10.0 km
                 erh= 5.6km    erz= 6.9km
   nr= 12        gap=147       rms=0.76
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  43.0  15    Pg   22:41:30.20    0.26
                  Sg      41:35.89   -0.19
KOGS  48.8 323    Pg   22:41:31.37    0.42
                  Sg      41:37.27   -0.62
PTJ   56.5 247    Sg   22:41:40.28   -0.01
CRES  95.8 252    Pg   22:41:39.94    0.68
                  Sg      41:52.15   -0.53
```

```
KOVH 113.7  90    Pn   22:41:41.18   -0.80
                  Sn      41:56.00   -1.52
PKSV 127.8 100    Sn   22:42:00.01   -0.65
PKSM 155.9  85    Sn   22:42:08.59    1.69
MORH 156.1  85    Sn   22:42:08.66    1.71
```

784.

```
 2019-08-31  time:  0:53:37.52 UTC  ML= 1.9
   lat: 46.120N  lon: 16.651E  h= 10.0 km
                 erh= 2.1km    erz= 2.1km
   nr= 30        gap= 73       rms=0.90
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  40.1  14    PgD   0:53:45.76    0.85
                  Sg      53:51.67    1.01
KOGS  47.8 320    Pg    0:53:46.51    0.26
                  Sg      53:52.72   -0.33
PTJ   59.0 246    Pg    0:53:48.14   -0.06
                  Sg      53:55.66   -0.88
ZAG   60.3 238    Pg    0:53:49.11    0.67
                  Sg      53:57.17    0.21
GROS  96.4 293    PgD   0:53:54.20   -0.62
                  Sg      54:05.91   -2.40
CRES  98.2 251    Pg    0:53:54.83   -0.31
                  Sg      54:08.26   -0.62
KOVH 112.1  92    PnU   0:53:56.45   -0.80
                  Sn      54:10.86   -1.78
PKSV 126.6 102    Pn    0:53:58.33   -0.74
                  Sn      54:15.38   -0.50
TIH  128.9  48    Pn    0:53:59.86    0.51
PERS 131.3 296    Pn    0:54:00.52    0.88
                  Sn      54:15.96   -0.94
SOKA 139.1 297    Pn    0:54:01.84    1.22
                  Sn      54:18.31   -0.33
ARSA 152.5 326    Sn    0:54:21.40   -0.21
EGYH 153.3  20    Pn    0:54:02.98    0.59
                  Sn      54:21.97    0.17
PKSM 154.1  86    Pn    0:54:01.41   -1.08
MORH 154.3  86    Pn    0:54:01.46   -1.06
                  Sn      54:23.42    1.41
BLY  158.0 165    Pn    0:54:05.16    2.19
                  Sn      54:24.04    1.22
OBKA 167.6 285    Sn    0:54:28.07    3.10
```

785.

```
 2019-08-31  time:  7:58:34.13 UTC  ML= 3.4
   lat: 46.113N  lon: 16.656E  h= 12.9 km
                 erh= 1.2km    erz= 1.1km
   nr= 54        gap= 74       rms=0.64
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  40.7  13    PgD   7:58:42.56    0.80
                  Sg      58:48.01    0.30
KOGS  48.6 320    Pg    7:58:43.11    0.01
                  Sg      58:49.00   -1.11
PTJ   59.0 246    PgU   7:58:44.89   -0.02
                  Sg      58:52.31   -1.01
ZAG   60.2 238    PgU   7:58:45.86    0.74
                  Sg      58:53.72    0.02
GROS  96.9 293    P*U   7:58:50.76   -0.65
                  S*      59:01.91   -2.98
CRES  98.2 251    P*U   7:58:51.46   -0.15
                  S*      59:04.84   -0.40
KOVH 111.7  91    PnU   7:58:53.20   -0.24
                  Sn      59:08.09   -0.41
PKSV 126.2 101    PnU   7:58:55.08   -0.16
TIH  129.1  47    Pn    7:58:55.47   -0.14
                  Sn      59:12.14   -0.22
PERS 131.9 296    PnU   7:58:56.05    0.10
                  Sn      59:12.05   -0.92
PKS9 135.6  67    Pn    7:58:55.98   -0.44
SOKA 139.7 297    Pn    7:58:57.18    0.25
                  Sn      59:14.99    0.28
ARSA 153.3 326    Pn    7:58:59.30    0.68
                  Sn      59:18.07    0.35
PKSM 153.8  86    PnU   7:58:58.16   -0.52
EGYH 153.9  20    Pn    7:58:59.19    0.50
                  Sn      59:17.61   -0.25
MORH 154.0  86    PnU   7:58:58.20   -0.51
PKB4 156.0  74    Pn    7:58:58.68   -0.28
BLY  157.2 165    Pn    7:58:59.64    0.53
                  Sn      59:19.98    1.39
PKST 165.4  40    PnU   7:59:00.05   -0.08
OBKA 168.1 285    Pn    7:59:00.75    0.28
PKB5 168.8  72    Pn    7:58:59.68   -0.88
SOP  174.7 358    Pn    7:59:03.96    2.67
RONA 178.5 351    Pn    7:59:02.26    0.50
                  Sn      59:21.47   -1.85
PKB3 198.8  80    Pn    7:59:03.82   -0.47
PKS2 201.5  78    Pn    7:59:04.61   -0.02
CONA 210.6 343    Pn    7:59:06.32    0.55
SRO  227.2  34    Pn    7:59:08.45    0.61
                  Sn      59:34.18    0.04
ZST  234.0   8    Pn    7:59:08.94    0.25
MYKA 238.9 284    Pn    7:59:10.37    1.07
                  Sn      59:44.11    7.38*
MOA  265.2 317    Pn    7:59:14.14    1.57
                  Sn      59:39.88   -2.68
FRGS 269.0 114    Pn    7:59:12.98   -0.07
SMOL 273.2  12    Pn    7:59:14.41    0.84
PENC 273.4  47    Pn    7:59:13.92    0.33
KBA  275.5 293    Pn    7:59:16.12    2.27
                  Sn      59:45.20    0.36
BIOA 289.2 307    Pn    7:59:17.27    1.70
                  Sn      59:44.92   -2.97*
A336 295.1  37    Pn    7:59:16.94    0.63
VYHS 311.9  32    Pn    7:59:18.52    0.13*
                  Sn      59:50.51   -2.41*
PSZ  317.7  51    Pn    7:59:18.14   -0.98*
ABTA 326.2 282    Pn    7:59:21.82    1.64*
                  Sn    8:00:12.19   16.09*
KRUC 328.4 357    Pn    7:59:20.60    0.14*
                  Sn      59:54.04   -2.55*
BBLS 330.8 139    PnU   7:59:21.89    1.13*
                  Sn      59:57.84    0.71*
VRAC 355.3 359    Pn    7:59:23.99    0.18*
SIRR 386.7  87    PnC   7:59:28.24    0.51*
BZS  389.2  98    PnU   7:59:27.92   -0.12*
KECS 391.6  48    Pn    7:59:28.14   -0.19*
                  Sn    8:00:09.26   -1.36*
LANS 398.4  32   ePn    7:59:30.40    1.22*
WTTA 404.7 288    Pn    7:59:32.69    2.72*
                  Sn    8:00:33.93   20.40*
KHC  407.5 325   ePn    7:59:31.90    1.58*
                 eSn    8:00:13.00   -1.16*
WATA 411.4 289    Pn    7:59:33.29    2.49*
MORC 412.7   9    Pn    7:59:31.83    0.86*
                  Sn    8:00:13.69   -1.61*
MDVR 422.4 111    PnC   7:59:32.56    0.38*
SURR 426.1  95    PnC   7:59:32.58   -0.05*
SQTA 434.6 286    Pn    7:59:47.07   13.37*
                  Sn    8:00:43.80   23.63*
KRLC 440.7   1    Pn    7:59:35.44    0.99*
MOTA 445.9 288    Pn    7:59:50.12   15.01*
                  Sn    8:00:21.35   -1.33*
FETA 465.4 283    Pn    7:59:39.88    2.34*
                  Sn    8:00:50.00   22.99*
HERR 470.6 107    PnC   7:59:38.76    0.57*
DRGR 471.4  81    Pn    7:59:38.11   -0.17*
                  Sn    8:00:25.22   -3.10*
GZR  483.0 100    PnD   7:59:40.02    0.29*
BOVS 484.9 125    PnC   7:59:40.60    0.63*
MARR 501.0  83    PnC   7:59:41.71   -0.27*
STHS 503.2  43   ePn    7:59:42.80    0.55*
```

```
DAVA 534.4 284    Pn    7:59:45.93   -0.21*
```

786.

```
 2019-08-31  time:  8:18:29.46 UTC  ML= 2.1
   lat: 46.113N  lon: 16.623E  h= 10.0 km
                 erh= 2.1km    erz= 1.9km
   nr= 26        gap= 73       rms=0.87
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  41.4  17    Pg    8:18:37.52    0.46
                  Sg      18:43.01    0.02
KOGS  47.0 322    Pg    8:18:38.26    0.22
                  Sg      18:44.32   -0.42
PTJ   56.7 245    Pg    8:18:39.89    0.15
                  Sg      18:47.50   -0.26
ZAG   58.1 237    Sg    8:18:49.00    0.80
GROS  94.6 294    Pg    8:18:45.70   -0.76
                  Sg      18:57.18   -2.53
CRES  95.9 251    Pg    8:18:46.61   -0.06
                  Sg      18:59.38   -0.71
KOVH 114.2  91    Pn    8:18:48.15   -1.31
                  Sn      19:02.97   -2.09
PKSV 128.7 101    Pn    8:18:51.86    0.60
                  Sn      19:07.02   -1.24
PERS 129.6 297    Pn    8:18:52.31    0.93
                  Sn      19:07.17   -1.31
SOKA 137.5 297    Pn    8:18:53.45    1.09
                  Sn      19:10.00   -0.22
ARSA 151.9 326    Sn    8:19:12.90   -0.51
PKSM 156.3  86    Sn    8:19:15.11    0.72
MORH 156.5  86    Sn    8:19:15.60    1.15
BLY  157.9 164    Sn    8:19:15.49    0.74
OBKA 165.7 285    Sn    8:19:18.11    1.63
RONA 178.1 352    Pn    8:18:58.45    1.03
                  Sn      19:20.11    0.88
```

787.

```
 2019-08-31  time:  8:47:46.91 UTC  ML= 1.3
   lat: 47.684N  lon: 20.380E  h=  2.8 km
                 erh= 5.4km    erz=10.6km
   nr=  7        gap=185       rms=0.61
   Locality: Tenk
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   4.1 216    Pg    8:47:48.15    0.36
                  Sg      47:48.88    0.40
TMP3   8.0 192    Pg    8:47:48.15   -0.28
                  Sg      47:48.53   -1.08
PSZ   44.7 306    Pg    8:47:55.74    0.82
                  Sg      48:00.38   -0.78
JOS   91.1   7    Sg    8:48:15.46   -0.41
```

788.

```
 2019-08-31  time: 13:50:05.76 UTC  ML= 1.0
   lat: 47.675N  lon: 20.383E  h=  3.9 km
                 erh= 2.6km    erz= 3.9km
   nr=  9        gap=189       rms=0.38
   Locality: Tenk
   Comments:

sta   dist azm  phase  hr mn  sec     res
TMP2   3.5 229    Pg   13:50:07.15    0.45
                  Sg      50:07.52    0.10
TMP3   7.1 196    Pg   13:50:07.20   -0.01
                  Sg      50:07.61   -0.73
HU23  10.9 246    Pg   13:50:07.72   -0.11
                  Sg      50:08.97   -0.47
PSZ   45.5 306    Pg   13:50:14.40    0.47
                  Sg      50:20.27   -0.02
JOS   92.0   7    Sg   13:50:34.45   -0.59
```

789.

```
 2019-09-01  time: 11:37:40.77 UTC  ML= 1.3
   lat: 47.686N  lon: 18.179E  h= 16.1 km
                 erh= 2.0km    erz= 1.8km
   nr= 16        gap=109       rms=0.63
   Locality: Mocsa
   Comments:

sta   dist azm  phase  hr mn  sec     res
SRO   17.4  36    Pg   11:37:45.08    0.07
                  Sg      37:47.43   -0.88
PKSG  36.4 154    Pg   11:37:48.23    0.34
                  Sg      37:52.87   -0.56
CSKK  36.4 170    Sg   11:37:53.71    0.27
A338  38.8  20    Pg   11:37:48.69    0.41
                  Sg      37:54.02   -0.12
A339  42.3 292    Sg   11:37:55.60    0.43
PKST  48.7 193    Pg   11:37:50.88    0.94
                  Sg      37:56.20   -0.89
EGYH  70.4 245    Pg   11:37:53.04   -0.63
                  Sg      38:03.25   -0.48
A336  86.3  45    P*   11:37:56.70    0.56
                  S*      38:07.02   -1.11
VYHS 102.3  29    Pn   11:37:58.96    0.46
                  Sn      38:10.85   -1.48
```

790.

```
 2019-09-02  time:  6:51:21.52 UTC  ML= 1.7
   lat: 47.966N  lon: 19.446E  h=  0.0 km
                 erh= 1.5km    erz= 504km
   nr=  8        gap=113       rms=0.36
   Locality: Terény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  23.0 212    Pg    6:51:25.59   -0.05
                  Sg      51:28.74   -0.11
PSZ   33.9  99    Pg    6:51:27.48   -0.09
                  Sg      51:32.66    0.36
A336  44.7 312    Pg    6:51:29.84    0.34
                  Sg      51:36.19    0.47
VYHS  74.2 322    Sg    6:51:44.25   -0.86
KECS  96.3  53   eSg    6:51:51.60   -0.53
```

791.

```
 2019-09-02  time:  8:37:36.15 UTC  ML= 1.4
   lat: 47.093N  lon: 18.062E  h=  0.0 km
                 erh= 3.3km    erz= 707km
   nr=  6        gap=143       rms=0.43
   Locality: Vilonya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  18.6 354    Pg    8:37:39.14   -0.33
                  Sg      37:42.19    0.13
TIH   25.0 211    Pg    8:37:40.51   -0.10
                  Sg      37:44.97    0.88
CSKK  33.6  27    Sg    8:37:47.35    0.52
MORH 107.2 155    Sg    8:38:09.68   -0.54
KOLS 375.0  57   ePn    8:38:30.60    0.67*
```

792.

```
 2019-09-02  time: 10:45:11.24 UTC  ML= 2.8
   lat: 45.619N  lon: 20.528E  h= 13.4 km
                 erh= 3.0km    erz= 3.2km
   nr= 19        gap=114       rms=0.47
   Locality: Croatia
   Comments:
```

sta	dist	azm	phase	hr mn sec	res
FRGS	77.8	226	PgD	10:45:25.14	-0.20
			Sg	45:36.13	-0.21
BZS	84.9	90	PgD	10:45:26.95	0.35
			Sg	45:38.03	-0.54
PKS6	132.0	326	Pn	10:45:33.15	0.12
			Sn	45:50.36	0.34
PKB3	136.6	311	Pn	10:45:34.05	0.46
			Sn	45:48.42	-2.61*
PKSN	150.9	340	Sn	10:45:54.24	0.03
MORH	160.5	294	Pn	10:45:35.82	-0.75
PKSM	160.5	294	Pn	10:45:36.21	-0.37
			Sn	45:56.29	-0.05
PKB4	178.0	303	Pn	10:45:38.86	0.10
PKSV	179.6	280	Pn	10:45:39.53	0.57
			Sn	46:00.08	-0.49
DRGR	213.0	52	Pn	10:45:42.82	-0.30
BBLS	213.8	204	Pn	10:45:44.63	1.41
PSZ	260.1	349	Pn	10:45:48.56	-0.44
			Sn	46:17.78	-0.67
MORC	513.7	334	Sn	10:47:12.81	-1.92*

793.

2019-09-02 time: 11:00:31.64 UTC ML= 1.9
lat: 48.637N lon: 20.139E h= 0.0 km
erh= 1.5km erz= 3.9km
nr= 16 gap=107 rms=0.63
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	30.7	124	Pg	11:00:37.22	0.10
			Sg	00:41.28	-0.12
LANS	75.5	319	Pg	11:00:45.57	0.46
			Sg	00:54.82	-0.80
PSZ	81.9	193	Pg	11:00:46.93	0.67
			Sg	00:56.92	-0.75
NIE	87.9	8	Pg	11:00:47.54	0.20
			Sg	00:57.57	-2.01
ABAH	89.7	115	Pg	11:00:47.24	-0.42
			Sg	00:59.60	-0.56
A336	95.6	242	Pg	11:00:49.01	0.31
			Sg	01:01.43	-0.59
VYHS	97.5	261	Pg	11:00:49.17	0.12
			Sg	01:01.48	-1.15
OJC	177.8	352	Pn	11:01:02.21	1.37
			Sn	01:24.29	0.67

794.

2019-09-03 time: 8:43:35.71 UTC ML= 1.6
lat: 48.600N lon: 20.747E h= 0.0 km
erh= 1.2km erz= 2.6km
nr= 13 gap= 87 rms=0.40
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	23.3	236	Pg	8:43:40.24	0.37
			Sg	43:42.74	-0.37
ABAH	49.7	133	Pg	8:43:44.95	0.37
			Sg	43:50.45	-1.05
NIE	96.4	341	Pg	8:43:52.97	0.04
STHS	97.8	22	ePg	8:43:53.10	-0.08
			eSg	44:05.90	-0.90
PSZ	98.8	220	Pg	8:43:53.62	0.27
			Sg	44:06.97	-0.14
LANS	112.1	303	Pg	8:43:55.87	0.15
KOLS	118.1	72	eSg	8:44:13.60	0.34
VYHS	141.6	265	Pn	8:44:00.09	-0.31
			Sn	44:18.36	-1.30

795.

2019-09-04 time: 7:52:00.33 UTC ML= 1.5
lat: 48.595N lon: 20.768E h= 0.0 km
erh= 7.6km erz= 7.0km
nr= 7 gap=228 rms=0.86
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	24.3	239	Pg	7:52:04.88	0.22
			Sg	52:07.91	-0.13
ABAH	48.1	134	Pg	7:52:08.98	0.06
			Sg	52:14.88	-0.75
PSZ	99.3	221	Pg	7:52:19.44	1.38
			Sg	52:30.46	-1.44
VYHS	143.1	266	Sn	7:52:43.46	-1.15

796.

2019-09-04 time: 8:12:20.13 UTC ML= 1.6
lat: 47.873N lon: 19.148E h= 0.0 km
erh= 1.2km erz= 224km
nr= 9 gap=209 rms=0.17
Locality: Nőtincs
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	13.6	132	Pg	8:12:22.62	0.06
			Sg	12:24.44	-0.01
A336	41.6	345	Pg	8:12:27.68	0.13
			Sg	12:33.25	-0.08
PSZ	56.1	85	Pg	8:12:30.04	-0.10
			Sg	12:38.26	0.31
VYHS	72.8	341	Pg	8:12:33.05	-0.08
			Sg	12:43.49	0.21
KECS	120.4	56	ePg	8:12:41.30	-0.33
			eSg	12:56.80	-1.61*

797.

2019-09-04 time: 8:46:45.06 UTC ML= 1.8
lat: 47.109N lon: 17.955E h= 0.0 km
erh= 2.1km erz= 2.1km
nr= 20 gap=188 rms=0.67
Locality: Kádárta
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	17.7	20	Pg	8:46:47.99	-0.23
			Sg	46:51.10	0.41
TIH	23.7	191	Pg	8:46:50.20	0.91
			Sg	46:54.12	1.53
CSKK	36.5	39	Pg	8:46:51.81	0.23
			Sg	46:57.03	0.37
PKSG	45.6	46	Pg	8:46:53.31	0.12
			Sg	46:59.74	0.20
PKB5	82.5	134	Sg	8:47:11.89	0.60
PKB4	84.2	144	Sg	8:47:12.79	0.96
MORH	112.4	152	Pg	8:47:04.87	-0.26
			Sg	47:19.67	-1.13
PKSM	112.7	152	Pg	8:47:05.17	-0.02
			Sg	47:19.87	-1.02
KOVH	114.0	174	Pg	8:47:05.46	0.05
			Sg	47:20.33	-0.96
PKSV	137.6	170	Sn	8:47:26.75	-1.36
A336	147.5	32	Sn	8:47:29.51	-0.81
VYHS	167.5	23	Sn	8:47:34.38	-0.38
PSZ	171.6	58	Sn	8:47:33.88	-1.78

798.

```
 2019-09-04  time: 11:04:55.22 UTC  ML= 0.8
   lat: 47.228N  lon: 18.241E  h=  0.0 km
                 erh= 4.4km    erz= 441km
   nr=  5        gap=251       rms=0.20
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  15.1   6    Pg   11:04:57.85   -0.06
                 Sg      05:00.32    0.30
PKST  16.0 282    Pg   11:04:58.22    0.14
                 Sg      04:59.91   -0.40
PKSG  21.4  32    Sg   11:05:01.93   -0.10
```

799.

```
 2019-09-05  time:  6:19:02.45 UTC  ML= 1.7
   lat: 47.320N  lon: 18.423E  h=  0.0 km
                 erh= 3.0km    erz= 4.9km
   nr=  8        gap=159       rms=0.57
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.3 343    PgU   6:19:04.01    0.08
                 Sg      19:04.47   -0.62
CSKK  13.2 291    Pg    6:19:05.20    0.40
                 Sg      19:06.91    0.27
PKST  30.2 257    Pg    6:19:08.41    0.57
                 Sg      19:10.81   -1.24
PKSM 124.3 172    Sg    6:19:41.95   -0.02
VYHS 134.1  13    Sn    6:19:43.75   -0.98
```

800.

```
 2019-09-05  time:  7:19:10.74 UTC  ML= 1.2
   lat: 48.074N  lon: 20.667E  h=  0.0 km
                 erh= 3.7km    erz= 5.8km
   nr=  7        gap=193       rms=0.71
   Locality: Bükkszentlászló
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  47.4 343    Sg    7:19:26.25    0.44
ABAH  49.2  60    Pg    7:19:20.13    0.61
                 Sg      19:25.65   -0.72
PSZ   60.2 253    Pg    7:19:22.04    0.55
                 Sg      19:29.55   -0.33
A336 125.4 278    Sg    7:19:49.61   -0.98
VYHS 143.7 289    Sn    7:19:53.66   -1.49
```

801.

```
 2019-09-05  time:  7:28:00.56 UTC  ML= 1.6
   lat: 48.585N  lon: 20.759E  h=  0.0 km
                 erh= 4.5km    erz= 6.0km
   nr=  9        gap=127       rms=0.89
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.2 241    Pg    7:28:05.23    0.54
                 Sg      28:07.89   -0.03
ABAH  48.0 132    Pg    7:28:09.33    0.21
                 Sg      28:14.71   -1.09
LANS 113.7 304    Pg    7:28:20.30   -0.56
KOLS 117.9  71   ePg    7:28:23.80    2.20
                 eSg     28:36.30   -1.72
VYHS 142.3 266    Pn    7:28:25.42    0.08
                 Sn      28:43.49   -1.18
```

802.

```
 2019-09-05  time:  9:05:34.68 UTC  ML= 2.0
   lat: 47.323N  lon: 18.450E  h=  0.0 km
                 erh= 2.7km    erz= 4.7km
   nr= 10        gap=161       rms=0.50
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.9 330    PgU   9:05:36.21   -0.06
                 Sg      05:36.73   -0.78
CSKK  15.0 287    Pg    9:05:37.81    0.45
                 Sg      05:39.64    0.18
PKST  32.3 257    Pg    9:05:40.62    0.18
                 Sg      05:43.95   -0.98
MORH 124.0 173    Sg    9:06:14.26    0.18
PKSM 124.4 173    Sg    9:06:14.19   -0.02
VYHS 133.4  12    Pn    9:05:58.79    0.45
                 Sn      06:15.39   -1.41
```

803.

```
 2019-09-05  time:  9:07:53.49 UTC  ML= 1.7
   lat: 48.646N  lon: 19.936E  h=  0.0 km
                 erh= 2.1km    erz= 410km
   nr=  9        gap=236       rms=0.31
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  44.5 114    Pg    9:08:01.53    0.10
                 Sg      08:06.80   -0.83
PSZ   81.0 182    Pg    9:08:08.22    0.26
                 Sg      08:19.50    0.26
A336  83.2 236    Pg    9:08:08.43    0.09
                 Sg      08:19.15   -0.78
ABAH 104.0 112    Pg    9:08:12.16    0.10
                 Sg      08:26.43   -0.11
PENC 106.9 207    Sg    9:08:27.33   -0.13
```

804.

```
 2019-09-05  time:  9:16:07.49 UTC  ML= 1.2
   lat: 47.745N  lon: 18.704E  h=  0.0 km
                 erh= 4.0km    erz= ***km
   nr= 11        gap=144       rms=1.11
   Locality: Dorog
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
BUD   37.8 140    Sg    9:16:19.05   -0.45
PENC  43.6  83    Sg    9:16:20.42   -0.93
PKSG  45.8 211    Pg    9:16:15.59   -0.08
                 Sg      16:21.81   -0.24
CSKK  54.0 218    Pg    9:16:17.13    0.00
                 Sg      16:24.90    0.24
A336  58.5  22    Sg    9:16:23.66   -2.43
PKST  73.9 223    Pg    9:16:20.78    0.09
                 Sg      16:30.52   -0.47
VYHS  83.8   7   ePg    9:16:25.50    3.05
                 eSg     16:36.00    1.87
```

805.

```
 2019-09-05  time:  9:44:25.12 UTC  ML= 1.2
   lat: 47.196N  lon: 18.289E  h=  0.0 km
                 erh= 2.2km    erz= 252km
   nr=  6        gap=271       rms=0.15
   Locality: Sárkeszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.7 353    Pg    9:44:28.43   -0.03
```

```
                  Sg      44:30.52   -0.55
PKST  20.5 290    Pg    9:44:28.75   -0.03
                  Sg      44:31.77    0.13
PKSG  23.1  19    Pg    9:44:29.28    0.03
                  Sg      44:32.65    0.18
```

806.

```
 2019-09-05  time: 21:51:13.43 UTC  ML= 1.9
   lat: 48.570N  lon: 22.432E  h=  1.2 km
                 erh= 1.9km    erz= 2.3km
   nr= 11        gap=161       rms=0.47
   Locality: Ukraine
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOLS  42.0 344    Pg   21:51:20.88   -0.05
                  Sg      51:26.68   -0.11
TRPA  49.5 171    Pg   21:51:22.60    0.33
                  Sg      51:28.55   -0.62
ABAH  93.3 251    Pg   21:51:30.16    0.06
                  Sg      51:42.75   -0.35
KWP  119.7  10    Pg   21:51:34.69   -0.12
STHS 128.2 317   ePn   21:51:38.30    2.01
                 eSn      51:53.00   -1.12
KECS 144.1 266   eSn   21:51:58.00    0.34
DRGR 198.8 174    Sn   21:52:09.76   -0.05
```

807.

```
 2019-09-06  time:  7:18:17.81 UTC  ML= 2.4
   lat: 48.165N  lon: 21.229E  h=  0.0 km
                 erh= 5.8km    erz= ***km
   nr=  7        gap=162       rms=1.05
   Locality: Szerencs
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  14.6   3    Pg    7:18:20.44    0.02
                  Sg      18:21.60   -0.86
KECS  65.5 303   ePg    7:18:31.20    1.69
                 eSg      18:38.80    0.17
TRPA  97.6  92    Sg    7:18:49.66    0.84
PSZ  103.2 255    Sg    7:18:49.32   -1.29
KOLS 115.1  42    Sg    7:18:53.09   -1.30
```

808.

```
 2019-09-06  time: 11:04:21.24 UTC  ML= 1.8
   lat: 48.375N  lon: 19.862E  h=  0.0 km
                 erh= 1.9km    erz= 767km
   nr= 11        gap= 82       rms=0.62
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  47.7  75    Pg   11:04:30.19    0.43
                  Sg      04:36.25   -0.16
PSZ   50.8 177    Pg   11:04:30.40    0.08
                  Sg      04:36.65   -0.75
A336  65.9 256    Pg   11:04:33.71    0.70
                  Sg      04:41.74   -0.46
VYHS  77.0 280    Pg   11:04:35.82    0.82
                  Sg      04:44.85   -0.88
LANS  91.0 341    Sg   11:04:49.98   -0.18
ABAH 102.5  95    Sg   11:04:52.91   -0.92
NIE  120.7  16    Sg   11:04:58.67   -0.94
```

809.

```
 2019-09-07  time: 10:51:05.60 UTC  ML= 1.3
   lat: 48.025N  lon: 19.663E  h=  0.0 km
                 erh= 3.4km    erz= 832km
   nr=  7        gap=174       rms=0.55
   Locality: Lucfalva
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   20.9 124    Pg   10:51:09.69    0.35
                  Sg      51:12.10   -0.15
PENC  38.7 228    Pg   10:51:12.15   -0.35
                  Sg      51:18.28    0.40
A336  54.6 295    Pg   10:51:15.23   -0.12
                  Sg      51:24.15    1.20
VYHS  80.6 310    Sg   10:51:30.00   -1.21
```

810.

```
 2019-09-07  time: 10:57:29.53 UTC  ML= 1.7
   lat: 46.210N  lon: 18.916E  h=  8.3 km
                 erh= 1.1km    erz= 1.3km
   nr= 25        gap=186       rms=0.39
   Locality: Baja
   Comments:

sta   dist azm  phase  hr mn  sec     res
MORH  20.9 272   PgD   10:57:33.86    0.31
                  Sg      57:36.74    0.05
PKSM  21.2 271   PgD   10:57:33.88    0.29
                  Sg      57:36.80    0.05
PKB3  32.1  42    Pg   10:57:35.48    0.03
PKS2  38.9  36    Pg   10:57:36.76    0.14
                  Sg      57:42.33    0.17
PKB4  39.9 323   PgU   10:57:37.06    0.26
                  Sg      57:42.57    0.10
PKB5  45.0 342   PgU   10:57:37.86    0.16
                  Sg      57:43.62   -0.45
PKB2  57.4  26    Pg   10:57:39.73   -0.16
                  Sg      57:47.21   -0.76
A266  61.1 305    Sg   10:57:49.32    0.18
PKSV  62.5 235    Pg   10:57:40.81    0.02
                  Sg      57:48.67   -0.91
KOVH  64.4 258    Pg   10:57:40.97   -0.16
                  Sg      57:49.11   -1.07
PKS9  64.5 311    Pg   10:57:41.58    0.45
                  Sg      57:50.08   -0.11
PKS6  66.1  49    Pg   10:57:41.26   -0.17
PKS7  95.0  11    Sg   10:57:58.66   -1.17
PKST 134.7 330    Pn   10:57:53.51    1.22
                  Sn      58:09.80   -0.25
PKSG 137.4 343    Sn   10:58:10.29   -0.35
```

811.

```
 2019-09-07  time: 11:11:48.68 UTC  ML= 1.2
   lat: 48.040N  lon: 19.659E  h=  0.0 km
                 erh= 1.3km    erz= 469km
   nr= 11        gap=102       rms=0.38
   Locality: Lucfalva
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   22.2 128   PgU   11:11:53.01    0.37
                  Sg      11:55.27   -0.46
PENC  39.5 225   PgU   11:11:55.34   -0.40
                  Sg      12:01.39    0.14
A336  53.6 294    Pg   11:11:58.36    0.11
                  Sg      12:05.94    0.22
KECS  78.7  51   ePg   11:12:02.90    0.16
                 eSg      12:13.90    0.19
VYHS  79.3 310    Pg   11:12:03.10    0.27
                  Sg      12:13.09   -0.78
ABAH 121.0  76    Sg   11:12:25.09   -2.05
```

812.

```
 2019-09-09  time:  6:52:35.66 UTC  ML= 1.7
   lat: 48.100N  lon: 21.369E  h=  0.0 km
                 erh= 7.0km    erz= ***km
   nr=  6        gap=224       rms=0.66
   Locality: Tokaj
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  23.8 336    Pg    6:52:40.48    0.57
                  Sg      52:43.87    0.64
KECS  78.2 303    Pg    6:52:49.94    0.32
                  Sg      52:59.92   -0.59
PSZ  111.9 260    Sg    6:53:10.32   -0.89
KOLS 114.2  36    Sg    6:53:10.90   -1.06
```

813.

```
 2019-09-09  time:  8:57:08.08 UTC  ML= 1.2
   lat: 46.197N  lon: 18.280E  h=  0.0 km
                 erh= 2.6km    erz= 404km
   nr=  7        gap=217       rms=0.30
   Locality: Komló
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  18.4 229    Pg    8:57:11.53    0.17
                  Sg      57:14.28    0.35
PKSM  27.9  87    Pg    8:57:12.91   -0.16
                  Sg      57:17.02    0.06
MORH  28.2  86    Pg    8:57:12.91   -0.20
                  Sg      57:17.57    0.53
PKSV  34.3 184    Sg    8:57:18.39   -0.60
```

814.

```
 2019-09-10  time:  7:34:42.29 UTC  ML= 2.0
   lat: 47.269N  lon: 17.617E  h=  0.0 km
                 erh= 1.8km    erz= 2.1km
   nr= 14        gap=135       rms=0.93
   Locality: Nagytevel
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
EGYH  27.1 307    Pg    7:34:47.32    0.18
                  Sg      34:51.95    1.03
PKST  31.6  92    Pg    7:34:48.29    0.36
                  Sg      34:52.88    0.55
TIH   46.1 153    Sg    7:34:57.18    0.25
CSKK  49.7  78    Pg    7:34:52.41    1.24
                  Sg      34:58.32    0.22
PKSG  60.0  77    Sg    7:35:01.57    0.20
SRO   80.0  41    Sg    7:35:06.48   -1.26
KOVH 136.3 164    Sn    7:35:24.68   -0.39
MORH 140.9 146    Sn    7:35:24.02   -2.07
PKSM 141.2 146    Sn    7:35:25.22   -0.93
A336 149.1  44    Sn    7:35:25.97   -1.93
CONA 151.0 299    Sn    7:35:26.84   -1.49
```

815.

```
 2019-09-10  time:  9:41:50.18 UTC  ML= 0.5
   lat: 47.240N  lon: 18.254E  h=  0.0 km
                 erh= 2.4km    erz= 302km
   nr=  5        gap=246       rms=0.14
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  13.7   2    Pg    9:41:52.79    0.16
                  Sg      41:54.58    0.03
PKST  16.8 277    Pg    9:41:53.25    0.08
                  Sg      41:55.31   -0.20
PKSG  19.8  31    Pg    9:41:53.56   -0.16
```

816.

```
 2019-09-10  time: 14:25:58.55 UTC  ML= 1.8
   lat: 47.120N  lon: 19.341E  h=  0.0 km
                 erh= 6.2km    erz= 882km
   nr= 11        gap=183       rms=0.73
   Locality: Örkény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKS7  15.9 239    Pg   14:26:01.24   -0.15
                  Sg      26:02.89   -0.71
PKB5  74.4 218    Pg   14:26:12.92    1.08
                  Sg      26:23.30    1.10
PENC  74.7 357    Pg   14:26:13.07    1.18
PKB4  89.3 219    Pg   14:26:14.75    0.26
PSZ   98.1  25    Pg   14:26:15.72   -0.35
                  Sg      26:28.54   -1.19
PKS9 100.3 234    Pg   14:26:16.28   -0.19
MORH 113.8 208    Pg   14:26:18.21   -0.66
PKSM 114.3 208    Pg   14:26:18.32   -0.63
```

817.

```
 2019-09-11  time:  8:18:41.74 UTC  ML= 1.7
   lat: 48.611N  lon: 20.770E  h=  0.0 km
                 erh= 3.4km    erz= 4.8km
   nr= 10        gap=130       rms=0.76
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  25.4 236    Pg    8:18:46.81    0.54
                  Sg      18:49.72   -0.08
ABAH  49.3 135    Pg    8:18:50.63    0.08
                  Sg      18:55.64   -1.78
PSZ  100.8 220    Pg    8:18:59.64   -0.10
LANS 112.8 302    Pg    8:19:02.18    0.30
                  Sg      19:15.72   -1.87
KOLS 116.2  72   eSg    8:19:19.90    1.24
A336 137.7 252    Pn    8:19:06.41    0.47
                  Sn      19:23.74   -1.07
```

818.

```
 2019-09-11  time:  8:30:13.12 UTC  ML= 1.9
   lat: 47.928N  lon: 20.113E  h=  0.0 km
                 erh= 4.4km    erz= 3.6km
   nr=  8        gap=221       rms=0.57
   Locality: Recsk
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   16.4 266    Pg    8:30:16.44    0.39
                  Sg      30:18.88    0.55
PENC  64.1 256    Pg    8:30:24.74    0.18
                  Sg      30:33.04   -0.45
KECS  67.6  24    Sg    8:30:34.30   -0.32
A336  89.7 292    Pg    8:30:29.59    0.45
                  Sg      30:40.24   -1.39
PKSG 142.5 245    Sn    8:30:56.33   -0.93
```

819.

```
 2019-09-11  time: 11:10:06.20 UTC  ML= 1.0
   lat: 47.197N  lon: 18.277E  h=  0.0 km
                 erh= 1.7km    erz= 433km
   nr=  6        gap=144       rms=0.25
   Locality: Csór
   Comments: probably explosion
```

```
sta   dist azm  phase  hr mn  sec     res
CSKK  18.5 356    Pg   11:10:09.67    0.16
                  Sg      10:11.79   -0.30
PKST  19.6 291    Pg   11:10:10.01    0.31
                  Sg      10:12.11   -0.33
PKSG  23.3  22    Sg   11:10:13.58   -0.04
MORH 112.6 166    Sg   11:10:41.71   -0.28
```

820.

```
 2019-09-12  time:  7:07:38.60 UTC  ML= 1.9
   lat: 47.346N  lon: 18.446E  h=  0.0 km
                 erh= 3.8km    erz= 8.8km
   nr= 11        gap=113       rms=1.18
   Locality: Gánt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   6.6 320    Pg    7:07:39.27   -0.50
                  Sg      07:39.69   -1.00
CSKK  14.1 278    Pg    7:07:40.66   -0.46
                  Sg      07:42.47   -0.62
PKST  32.6 253    Pg    7:07:47.77    3.35
A336 107.0  23    Sg    7:08:12.59   -0.01
PSZ  126.1  60    Pg    7:08:01.85    0.74
                  Sg      08:18.63   -0.04
MORH 126.6 173    Sg    7:08:18.08   -0.75
PKSM 127.0 173    Sg    7:08:18.12   -0.84
KOVH 142.3 191    Sn    7:08:22.03   -0.67
```

821.

```
 2019-09-12  time:  8:12:52.12 UTC  ML= 1.1
   lat: 46.119N  lon: 18.070E  h=  0.0 km
                 erh= 2.9km    erz= 563km
   nr= 10        gap=226       rms=0.45
   Locality: Abaliget
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   4.1 147    Pg    8:12:52.64   -0.22
                  Sg      12:54.05    0.62
PKSV  29.3 151    Pg    8:12:57.17   -0.18
                  Sg      13:01.39   -0.04
PKSM  45.3  77    Pg    8:12:59.98   -0.22
                  Sg      13:05.99   -0.52
MORH  45.6  76    Pg    8:13:00.67    0.41
                  Sg      13:06.06   -0.55
PKS9  54.4  17    Sg    8:13:08.90   -0.51
PKB5  73.6  44    Pg    8:13:06.09    0.83
LANS 353.0  17   ePn    8:13:43.00   -0.16*
                 eSn      14:00.50  -22.48*
```

822.

```
 2019-09-12  time:  9:04:50.10 UTC  ML= 1.6
   lat: 48.570N  lon: 20.756E  h=  0.0 km
                 erh= 4.1km    erz= ***km
   nr=  9        gap= 91       rms=0.99
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.2 244    Pg    9:04:53.92   -0.15
ABAH  47.0 130    Pg    9:04:57.64   -0.85
                  Sg      05:04.71   -0.33
PSZ   96.7 221    Pg    9:05:08.48    1.11
                  Sg      05:20.84    0.00
NIE   99.8 341    Pg    9:05:09.75    1.83
LANS 114.5 304    Pg    9:05:09.34   -1.21
KOLS 118.6  70    Pg    9:05:11.58    0.29
                  Sg      05:26.54   -1.27
```

823.

```
 2019-09-12  time:  9:13:28.85 UTC  ML= 2.0
   lat: 48.327N  lon: 21.228E  h=  0.0 km
                 erh= 4.8km    erz= 599km
   nr=  6        gap=238       rms=0.36
   Locality: Boldogkőújfalu
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   3.5 165    Pg    9:13:29.35   -0.13
                  Sg      13:30.19    0.22
KECS  57.6 288    Pg    9:13:39.02   -0.12
                  Sg      13:47.67    0.50
PSZ  109.1 245    Pg    9:13:48.51    0.17
                  Sg      14:02.28   -1.26
```

824.

```
 2019-09-12  time:  9:52:21.64 UTC  ML= 1.1
   lat: 47.216N  lon: 18.274E  h=  0.0 km
                 erh= 0.5km    erz= 134km
   nr=  7        gap=142       rms=0.09
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.4 356    Pg    9:52:24.69    0.12
                  Sg      52:26.58   -0.27
PKST  18.8 285    Pg    9:52:25.00    0.01
                  Sg      52:27.57   -0.04
PKSG  21.4  24    Pg    9:52:25.51    0.04
                  Sg      52:28.36   -0.09
PKSM 115.1 166    Pg    9:52:42.17   -0.03
```

825.

```
 2019-09-12  time:  9:58:15.25 UTC  ML= 1.8
   lat: 48.389N  lon: 18.588E  h=  0.0 km
                 erh= 4.1km    erz= 6.7km
   nr= 16        gap=128       rms=1.55
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A336  35.1 120    Pg    9:58:22.03    0.52
                  Sg      58:26.38   -0.02
A338  45.2 203    Sg    9:58:31.93    2.33
A337  61.4 255    Sg    9:58:36.69    1.94
PENC  84.3 142    Sg    9:58:41.09   -0.95
MODS  97.1 269   ePg    9:58:29.80   -2.79
                 eSg      58:41.50   -4.62
LANS 106.5  37   ePg    9:58:35.90    1.63
                 eSg      58:50.90    1.80
PSZ  110.4 118    Pg    9:58:35.26    0.30
                  Sg      58:47.68   -2.66
PKSG 111.9 188    Sg    9:58:51.22    0.40
ZST  112.3 259    Sg    9:58:50.51   -0.44
PKST 132.4 198    Sn    9:58:56.56   -0.58
KECS 140.8  86   ePn    9:58:40.30    0.46
                 eSn      58:56.50   -2.52
```

826.

```
 2019-09-13  time:  9:59:43.23 UTC  ML= 1.8
   lat: 47.561N  lon: 18.589E  h=  0.0 km
                 erh= 2.3km    erz= 463km
   nr=  9        gap=151       rms=0.36
   Locality: Gyermely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
HU09  17.8 299    Pg    9:59:46.86    0.46
PKSG  24.0 218    Pg    9:59:47.74    0.22
```

```
                  Sg      59:51.35    0.49
CSKK  33.1 228    Pg    9:59:49.32    0.18
                  Sg      59:53.63   -0.12
HU08  52.1 254    Pg    9:59:52.47   -0.07
PKST  53.6 231    Pg    9:59:52.30   -0.51
                  Sg      59:59.62   -0.66
PSZ  105.7  68    Sg    9:60:16.46   -0.37
```

827.

```
 2019-09-13  time: 17:40:40.90 UTC  ML= 3.2
   lat: 46.146N  lon: 16.648E  h= 11.0 km
                 erh= 1.6km    erz= 1.5km
   nr= 48        gap= 70       rms=0.81
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  37.4  15    PgD  17:40:49.23    1.37
                  Sg      40:52.63   -0.66
KOGS  45.5 318    PgD  17:40:50.04    0.77
                  Sg      40:55.93    0.14
PTJ   60.0 243    Pg   17:40:51.61   -0.19
                  Sg      40:58.88   -1.42
ZAG   61.7 235    Pg   17:40:52.51    0.41
                  Sg      41:00.71   -0.12
GOLS  80.6 259   ePg   17:40:55.23   -0.20
DOBS  91.1 270   iPgD  17:40:56.85   -0.44
GROS  95.0 292    Pg   17:40:57.44   -0.55
                  Sg      41:09.31   -2.00
CRES  98.9 249    P*   17:40:58.35   -0.32
KOVH 112.4  93    Pn   17:40:59.92   -0.62
                  Sn      41:13.56   -2.30
TIH  127.1  49    Pn   17:41:02.31   -0.07
PKSV 127.4 103    Pn   17:41:01.77   -0.65
                  Sn      41:18.70   -0.50
PERS 129.8 295    Pn   17:41:02.80    0.09
                  Sn      41:20.36    0.63
PKS9 134.7  69    Pn   17:41:02.77   -0.56
SOKA 137.6 295    Pn   17:41:03.70    0.01
                  Sn      41:20.88   -0.58
ARSA 150.0 325    PnD  17:41:05.85    0.62
                  Sn      41:23.83   -0.38
EGYH 150.7  20    Sn   17:41:23.58   -0.78
PKSM 154.1  87    PnU  17:41:04.81   -0.93
MORH 154.3  87    PnU  17:41:04.95   -0.82
PKB4 155.6  75    Pn   17:41:07.13    1.20
BLY  160.8 165    Pn   17:41:08.20    1.62
                  Sn      41:28.36    1.76
PKST 163.0  41    PnD  17:41:06.89    0.04
OBKA 166.7 284    Pn   17:41:07.71    0.40
SOP  171.1 358    Pn   17:41:09.61    1.75
RONA 174.8 351    Pn   17:41:08.91    0.58
                  Sn      41:29.03   -0.69
PKSG 192.1  44    Pn   17:41:10.37   -0.11
CONA 207.0 343    Pn   17:41:12.81    0.47
                  Sn      41:35.96   -0.91
SRO  224.6  34    Pn   17:41:15.34    0.81
ZST  230.6   9    Pn   17:41:15.74    0.46
MYKA 237.5 283    Pn   17:41:16.96    0.82
                  Sn      41:50.03    6.41*
MOA  262.2 316    Pn   17:41:20.55    1.33
                  Sn      41:48.85   -0.25
FRGS 270.9 114    Pn   17:41:20.06   -0.24
BIOA 286.5 307    Pn   17:41:23.82    1.56
                  Sn      41:54.56    0.05
A336 292.6  38    Pn   17:41:23.79    0.78
PSZ  315.8  51    PnD  17:41:26.37    0.47*
ABTA 324.8 282    Pn   17:41:27.04    0.01*
                  Sn      42:01.69   -1.31*
KRUC 324.8 357    Pn   17:41:27.24    0.21*
BBLS 333.9 139    Pn   17:41:28.72    0.56*
VRAC 351.7 359    Pn   17:41:30.56    0.18*
SIRR 387.0  88    PnD  17:41:35.65    0.87*
KECS 389.5  48   ePn   17:41:35.10    0.00*
                 eSn      42:15.30   -2.07*
BZS  390.2  99    Pn   17:41:34.67   -0.51*
WTTA 403.0 288    Pn   17:41:38.21    1.44*
                  Sn      42:20.29   -0.06*
KHC  404.3 325   ePn   17:41:38.40    1.47*
                 eSn      42:20.00   -0.64*
MORC 409.3   9    Pn   17:41:38.40    0.84*
ZVC  409.8 333   ePn   17:41:39.30    1.67*
MDVR 424.1 111    PnC  17:41:39.70    0.29*
SURR 426.8  96    PnC  17:41:39.66   -0.09*
KRLC 437.1   1   ePn   17:41:42.30    1.27*
GZR  484.0 100    PnC  17:41:46.60   -0.27*
LOT  559.1  98    PnD  17:41:56.69    0.45*
```

828.

```
 2019-09-13  time: 22:29:34.98 UTC  ML= 1.6
   lat: 46.131N  lon: 16.603E  h= 14.1 km
                 erh= 2.9km    erz= 2.4km
   nr= 20        gap=133       rms=1.00
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  40.0  19    PgD  22:29:42.85    0.30
                  Sg      29:46.22   -2.23
KOGS  44.5 322    Pg   22:29:43.55    0.24
                  Sg      29:49.67   -0.14
PTJ   56.1 243    Pg   22:29:45.33    0.02
                  Sg      29:52.57   -0.80
ZAG   57.9 235    Sg   22:29:54.15    0.24
GOLS  76.8 260   iPg   22:29:50.07    1.14
GCIS  81.0 249   iPgC  22:29:49.89    0.23
GROS  92.4 293    S*   22:30:02.84   -1.49
CRES  95.0 249    P*   22:29:51.70   -0.17
                  S*      30:04.17   -0.87
KOVH 115.9  92    Pn   22:29:53.69   -0.97
                  Sn      30:07.28   -2.73
PERS 127.3 296    Sn   22:30:13.81    1.25
PKSV 130.6 102    Sn   22:30:11.76   -1.52
ARSA 149.4 326    Sn   22:30:18.12    0.67
PKSM 157.7  87    Pn   22:30:01.31    1.43
                  Sn      30:21.15    1.85
MORH 157.9  87    Sn   22:30:20.75    1.40
```

829.

```
 2019-09-14  time:  9:55:46.04 UTC  ML= 2.0
   lat: 47.318N  lon: 16.344E  h=  0.0 km
                 erh= 2.0km    erz= 4.0km
   nr= 23        gap= 68       rms=0.98
   Locality: Austria
   Comments: probably explosion

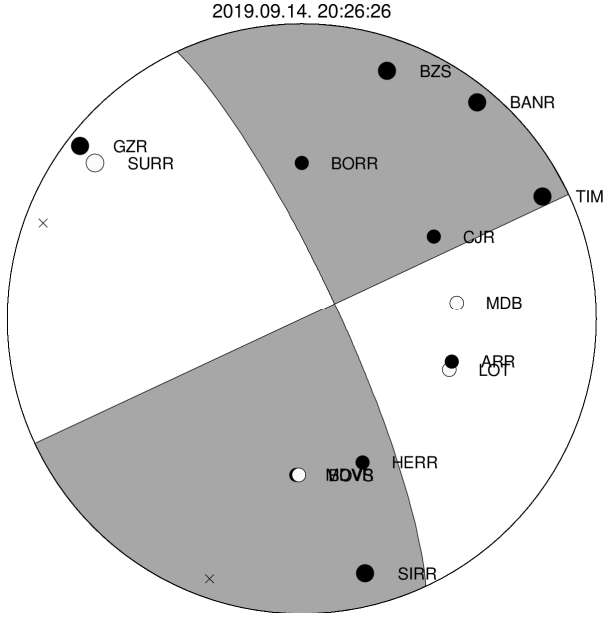
sta   dist azm  phase  hr mn  sec     res
RONA  42.6 355    Pg    9:55:53.33   -0.32
                  Sg      55:58.95   -0.64
SOP   43.8  22    Pg    9:55:53.90    0.05
                  Sg      55:58.78   -1.17
ARSA  62.5 263    Pg    9:55:57.55    0.35
                  Sg      56:05.50   -0.41
EGYH  75.5  82    Pg    9:56:00.41    0.89
                  Sg      56:08.24   -1.79
CONA  76.9 332    Pg    9:56:00.58    0.80
KOGS  96.9 184    Pg    9:56:04.24    0.89
                  Sg      56:15.55   -1.30
BEHE  99.8 161    Pg    9:56:04.62    0.76
                  Sg      56:18.51    0.74
GROS 114.8 214    Pg    9:56:06.45   -0.10
                  Sg      56:19.11   -3.43
PERS 120.3 231    Pg    9:56:06.98   -0.54
                  Sg      56:23.29   -0.98
SOKA 122.5 234    Sg    9:56:23.21   -1.76
PKST 128.1  93    Pg    9:56:07.39   -1.52
OBKA 163.6 237    Pn    9:56:15.21    1.73
```

```
                  Sn      56:35.16    0.28
MOA  167.1 291    Pn    9:56:15.28    1.37
                  Sn      56:37.14    1.49
```

830.

```
 2019-09-14  time: 20:26:26.18 UTC  ML= 2.5
   lat: 45.936N  lon: 21.777E  h=  7.9 km
                 erh= 1.2km    erz= 1.1km
   nr= 43        gap= 34       rms=0.67
   Locality: Romania
   Comments:

sta   dist azm  phase  hr mn  sec     res
SURR  33.8 127    PgD  20:26:32.69    0.31
                  Sg      26:36.00   -1.21
BZS   37.6 199    PgU  20:26:33.17    0.12
                  Sg      26:38.13   -0.27
SIRR  37.9 346    PgC  20:26:32.96   -0.14
                  Sg      26:37.40   -1.09
TIM   48.5 243    PgC  20:26:35.72    0.76
                  Sg      26:42.10    0.29
BANR  79.3 219    PgC  20:26:40.71    0.30
                  Sg      26:51.20   -0.30
GZR   98.6 128    PgC  20:26:43.18   -0.66
DRGR 119.2  37    Pn   20:26:46.55   -0.53
                  Sn      27:00.45   -2.93*
HERR 127.5 157    PnC  20:26:48.62    0.51
                  Sn      27:04.30   -0.91
BORR 128.3   0    PnC  20:26:48.88    0.67
                  Sn      27:04.40   -0.99
MDVR 128.4 182    PnC  20:26:48.36    0.13
                  Sn      27:05.00   -0.42
MARR 132.1  52    Sn   20:27:04.20   -2.04
MESR 162.1  34    Sn   20:27:12.90    0.00
LOT  164.4 109    PnD  20:26:53.70    0.98
                  Sn      27:14.70    1.29
CJR  164.7  58    PnC  20:26:53.91    1.16
                  Sn      27:13.00   -0.48
FRGS 177.5 240    Pn   20:26:54.47    0.12
                  Sn      27:16.17   -0.15
SRE  180.6 142    Sn   20:27:17.50    0.51
PKSN 181.5 306    Sn   20:27:18.98    1.77
PKS6 185.8 293    Pn   20:26:55.10   -0.28
                  Sn      27:18.69    0.54
MDB  202.9  84    PnD  20:26:57.98    0.47
                  Sn      27:22.30    0.36
PKS2 207.2 287    Pn   20:26:57.75   -0.30
ARR  231.5 106    PnC  20:27:01.98    0.90
                  Sn      27:28.70    0.40
MORH 244.3 277    Pn   20:27:01.85   -0.83
PKSM 244.5 277    Pn   20:27:01.90   -0.80
PKB4 252.6 284    Pn   20:27:03.43   -0.28
BOVS 255.8 181    PnD  20:27:04.07   -0.03
PSZ  262.9 327    Pn   20:27:05.23    0.24
ABAH 265.5 351    Pn   20:27:06.10    0.78
BBLS 296.3 219    Sn   20:27:41.72   -0.95*
```



831.

```
 2019-09-15  time:  9:09:59.72 UTC  ML= 2.2
   lat: 46.462N  lon: 16.404E  h= 12.4 km
                 erh= 1.5km    erz= 1.1km
   nr= 36        gap= 95       rms=0.62
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOGS  11.9 263    PgD   9:10:02.85    0.05
                  Sg      10:05.93    0.73
BEHE  28.5  88    PgD   9:10:04.19   -1.08
                  Sg      10:08.18   -1.43
GROS  69.3 270    Pg    9:10:12.09   -0.21
                  Sg      10:21.86   -0.25
PTJ   71.4 209    Pg    9:10:12.76    0.11
                  Sg      10:22.18   -0.56
GOLS  78.3 230   iPg    9:10:14.23    0.35
                 eSg      10:24.68   -0.25
DOBS  80.0 244   iPg    9:10:14.16   -0.01
                 eSg      10:25.64    0.19
GCIS  89.3 222   iPg    9:10:15.98    0.16
                 eSg      10:27.82   -0.56
CESS  90.7 233   iPg    9:10:16.37    0.30
PERS 100.6 281    P*    9:10:17.72    0.11
                  S*      10:30.55   -1.01
LEGS 101.4 236   iP*    9:10:17.79    0.06
CRES 101.8 226    P*    9:10:17.96    0.18
                  S*      10:30.99   -0.88
ZAVS 106.1 268   iPn    9:10:18.86    0.48
                 eSn      10:33.02    0.08
SOKA 107.9 283    Pn    9:10:18.45   -0.16
                  Sn      10:31.43   -1.92
ARSA 110.4 323    Pn    9:10:19.16    0.23
                  Sn      10:32.74   -1.18
KOVH 137.1 108    Pn    9:10:22.47    0.21
                  Sn      10:39.24   -0.60
RONA 137.8 357    Pn    9:10:22.72    0.38
                  Sn      10:39.83   -0.16
OBKA 142.6 272    Pn    9:10:24.92    1.98
                  Sn      10:43.32    2.27
PKSV 156.3 114    Pn    9:10:26.06    1.41
CONA 168.1 346    Pn    9:10:26.39    0.27
                  Sn      10:46.78    0.06
MOA  223.8 314    Sn    9:10:58.69   -0.39
```

832.

```
 2019-09-16  time:  8:59:02.32 UTC  ML= 2.1
   lat: 46.848N  lon: 17.310E  h=  0.0 km
                 erh= 6.9km    erz=13.3km
   nr=  9        gap=109       rms=1.04
   Locality: Vállus
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
TIH   44.8  83    Pg    8:59:11.74    1.42
                  Sg      59:18.09    1.53
EGYH  63.3   1    Sg    8:59:22.02   -0.42
PKST  71.5  50    Pg    8:59:15.18    0.09
                  Sg      59:24.10   -0.95
CSKK  92.1  52    Sg    8:59:31.96    0.37
PKSG 101.8  54    Sg    8:59:33.49   -1.21
KOVH 104.0 144    Sg    8:59:33.70   -1.67
GROS 145.0 253    Sn    8:59:46.38   -0.64
```

833.

```
 2019-09-16  time:  9:22:32.31 UTC  ML= 1.5
   lat: 48.366N  lon: 19.851E  h=  0.0 km
                 erh= 0.5km    erz= 0.8km
   nr=  6        gap=169       rms=0.08
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  48.8  74    Pg    9:22:41.04    0.02
                  Sg      22:47.83    0.02
PSZ   49.8 176    Pg    9:22:41.11   -0.10
                  Sg      22:48.24    0.09
A336  64.9 257    Sg    9:22:53.05    0.11
A337 153.5 265    Sn    9:23:18.83   -0.07
```

834.

```
 2019-09-16  time:  9:23:39.53 UTC  ML= 0.8
   lat: 47.242N  lon: 18.225E  h=  0.0 km
                 erh= 5.8km    erz= 574km
   nr=  5        gap=240       rms=0.27
   Locality: Bakonykúti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  13.7  11    Pg    9:23:41.60   -0.38
                  Sg      23:43.90    0.01
PKST  14.6 277    Pg    9:23:42.39    0.26
                  Sg      23:44.09   -0.07
PKSG  20.8  37    Sg    9:23:46.43    0.28
```

835.

```
 2019-09-16  time: 15:33:20.15 UTC  ML= 1.2
   lat: 45.795N  lon: 17.981E  h= 18.3 km
                 erh= 0.7km    erz= 0.2km
   nr=  8        gap=312       rms=0.05
   Locality: Vejti
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  23.5  64    Pg   15:33:25.45   -0.01
                  Sg      33:29.65    0.04
KOVH  33.9  16    Pg   15:33:26.96   -0.06
                  Sg      33:32.43    0.05
PKSM  69.0  48    P*   15:33:32.71    0.03
                  S*      33:42.53    0.08
MORH  69.5  48    P*   15:33:32.77    0.02
                  S*      33:42.46   -0.12
```

836.

```
 2019-09-16  time: 23:24:29.35 UTC  ML= 1.2
   lat: 45.734N  lon: 17.263E  h= 15.8 km
                 erh= 7.3km    erz= 4.4km
   nr=  8        gap=341       rms=0.30
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOVH  76.0  59    P*   23:24:43.43    0.25
                  S*      24:53.58   -0.39
PKSV  78.8  77    P*   23:24:43.98    0.37
                  S*      24:54.54   -0.20
PKSM 119.3  64    Pn   23:24:48.92   -0.33
                  Sn      25:05.01    0.24
MORH 119.7  63    Pn   23:24:49.02   -0.28
                  Sn      25:05.11    0.25
```

837.

```
 2019-09-16  time: 23:39:48.25 UTC  ML= 1.5
   lat: 45.888N  lon: 17.174E  h= 16.3 km
                 erh= 5.6km    erz= 5.0km
   nr= 10        gap=221       rms=0.39
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  71.7 335    P*   23:40:01.68    0.31
                  S*      40:11.70    0.09
KOVH  75.1  73    P*   23:40:02.16    0.26
                  S*      40:11.61   -0.93
PKSV  83.7  90    P*   23:40:03.06   -0.14
KOGS  94.7 311    P*   23:40:04.81   -0.07
                  S*      40:16.57   -1.28
PKSM 119.1  72    Sn   23:40:23.98    0.47
MORH 119.5  72    Pn   23:40:08.01   -0.09
                  Sn      40:23.86    0.28
```

838.

```
 2019-09-17  time:  9:07:59.46 UTC  ML= 1.8
   lat: 45.691N  lon: 17.443E  h= 17.5 km
                 erh= 5.4km    erz= 6.3km
   nr= 12        gap=120       rms=0.83
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  66.6  71    P*    9:08:11.76    0.06
KOVH  67.5  49    P*    9:08:11.43   -0.40
BLY  106.7 191    Pn    9:08:16.28   -1.27
PKSM 109.5  58    Pn    9:08:18.39    0.48
                  Sn      08:31.56   -0.74
MORH 109.9  58    Pn    9:08:18.17    0.21
                  Sn      08:32.30   -0.09
PTJ  117.8 281    Sn    9:08:33.21   -0.93
PKB4 126.8  45    Pn    9:08:21.16    1.09
TIH  138.8  14    Sn    9:08:37.36   -1.45
CRES 155.3 276    Pn    9:08:24.77    1.15
                  Sn      08:43.85    1.39
```

839.

```
 2019-09-17  time:  9:17:37.79 UTC  ML= 1.0
   lat: 47.214N  lon: 18.290E  h=  0.0 km
                 erh= 2.9km    erz= 318km
   nr=  5        gap=263       rms=0.14
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.7 352    Pg    9:17:40.98    0.20
```

```
                 Sg      17:42.97   -0.14
PKST  20.0 284   Pg    9:17:41.25   -0.11
                 Sg      17:44.24    0.09
PKSG  21.2  21   Sg    9:17:44.41   -0.11
```

840.

```
 2019-09-17  time: 10:21:58.07 UTC  ML= 2.0
   lat: 47.329N  lon: 18.412E  h=  0.0 km
                 erh= 1.0km    erz= 350km
   nr=  8        gap=112       rms=0.25
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   7.2 347   Pg   10:21:59.33   -0.03
                 Sg      21:59.95   -0.41
CSKK  12.1 289   PgU  10:22:00.60    0.37
                 Sg      22:01.83   -0.08
PKST  29.6 255   Sg   10:22:07.39   -0.09
MORH 125.0 172   Sg   10:22:37.64   -0.16
PKSM 125.4 172   Sg   10:22:37.67   -0.26
PSZ  129.3  60   Sg   10:22:39.49    0.32
```

841.

```
 2019-09-17  time: 10:39:36.56 UTC  ML= 1.8
   lat: 47.336N  lon: 18.458E  h=  0.0 km
                 erh= 2.5km    erz= 377km
   nr=  6        gap=213       rms=0.22
   Locality: Lovasberény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.0 320   Pg   10:39:38.15    0.16
                 Sg      39:38.75   -0.36
CSKK  15.2 281   Pg   10:39:39.49    0.20
                 Sg      39:41.25   -0.16
MORH 125.4 174   Sg   10:40:16.07   -0.35
PKSM 125.8 174   Sg   10:40:16.61    0.06
```

842.

```
 2019-09-18  time:  7:48:39.06 UTC  ML= 1.2
   lat: 46.099N  lon: 18.037E  h=  0.0 km
                 erh= 3.8km    erz= 765km
   nr= 11        gap=234       rms=0.62
   Locality: Bükkösd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   5.0 104   Pg    7:48:40.10    0.14
                 Sg      48:40.99    0.32
PKSV  28.8 145   Pg    7:48:44.49    0.29
                 Sg      48:48.78    0.57
PKSM  48.3  75   Pg    7:48:47.28   -0.42
                 Sg      48:53.77   -0.66
MORH  48.7  75   Pg    7:48:47.40   -0.35
                 Sg      48:53.60   -0.93
PKS9  57.3  19   Sg    7:48:56.84   -0.44
PKB4  62.1  45   Sg    7:49:01.13    2.33
PKB5  77.0  44   Sg    7:49:04.66    1.12
```

843.

```
 2019-09-18  time:  9:04:09.02 UTC  ML= 1.0
   lat: 47.200N  lon: 18.275E  h=  0.0 km
                 erh= 1.8km    erz= 488km
   nr=  8        gap=143       rms=0.35
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.2 357   Pg    9:04:11.96   -0.31
                 Sg      04:14.78   -0.02
PKST  19.4 290   Pg    9:04:12.51    0.03
                 Sg      04:15.33    0.15
PKSG  23.1  22   Pg    9:04:12.99   -0.15
                 Sg      04:16.63    0.28
PKSM 113.4 166   Pg    9:04:29.73    0.46
                 Sg      04:43.61   -1.45
```

844.

```
 2019-09-18  time:  9:18:48.42 UTC  ML= 1.0
   lat: 47.192N  lon: 18.295E  h=  0.0 km
                 erh= 1.1km    erz= 143km
   nr=  6        gap=273       rms=0.08
   Locality: Sárkeszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  19.3 352   Pg    9:18:52.01    0.15
                 Sg      18:54.45   -0.09
PKST  21.1 291   Pg    9:18:52.12   -0.07
                 Sg      18:55.17    0.04
PKSG  23.4  18   Pg    9:18:52.60   -0.01
                 Sg      18:55.82   -0.05
```

845.

```
 2019-09-19  time:  6:31:33.35 UTC  ML= 0.9
   lat: 47.192N  lon: 18.163E  h=  0.0 km
                 erh= 6.8km    erz= 713km
   nr=  5        gap=270       rms=0.32
   Locality: Pétfürdő
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  12.2 307   Pg    6:31:35.94    0.41
                 Sg      31:36.98   -0.26
CSKK  20.4  21   Pg    6:31:36.59   -0.40
                 Sg      31:39.96    0.13
PKSG  28.1  38   Sg    6:31:42.40    0.12
```

846.

```
 2019-09-19  time:  6:33:43.85 UTC  ML= 1.0
   lat: 47.190N  lon: 18.191E  h=  0.0 km
                 erh= 4.9km    erz= 516km
   nr=  5        gap=269       rms=0.25
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  14.1 303   PgU   6:33:46.54    0.17
                 Sg      33:48.13   -0.20
CSKK  19.9  15   Pg    6:33:47.24   -0.17
                 Sg      33:49.95   -0.23
PKSG  27.0  34   Sg    6:33:52.97    0.53
```

847.

```
 2019-09-19  time:  8:23:39.75 UTC  ML= 1.9
   lat: 47.904N  lon: 19.412E  h=  0.0 km
                 erh= 2.7km    erz= 771km
   nr=  7        gap=130       rms=0.51
   Locality: Bercel
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  16.0 218   Pg    8:23:42.09   -0.51
                 Sg      23:45.51    0.69
PSZ   36.1  87   Pg    8:23:46.07   -0.13
                 Sg      23:51.56    0.33
A336  47.8 320   Pg    8:23:49.06    0.77
                 Sg      23:54.30   -0.65
KECS 102.6  51   Pg    8:23:57.79   -0.27
```

848.

```
 2019-09-20  time:  6:40:04.16 UTC  ML= 1.2
   lat: 48.050N  lon: 20.686E  h=  0.0 km
                 erh= 2.1km    erz= 644km
   nr= 10        gap=161       rms=0.52
   Locality: Kisgyőr
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
HU02  14.4 304    Pg    6:40:07.06    0.33
                  Sg      40:08.92    0.19
ABAH  49.4  56    Pg    6:40:13.60    0.62
                  Sg      40:19.32   -0.54
KECS  50.4 343    Sg    6:40:19.92   -0.24
JOS   50.7 348    Pg    6:40:13.23    0.02
                  Sg      40:19.43   -0.84
PSZ   60.9 256    Pg    6:40:15.39    0.36
                  Sg      40:23.07   -0.44
HU07  92.0  95    Sg    6:40:31.95   -1.43
```

849.

```
 2019-09-20  time:  9:53:46.72 UTC  ML= 1.7
   lat: 48.671N  lon: 20.713E  h=  0.0 km
                 erh= 6.1km    erz= ***km
   nr=  6        gap=217       rms=0.60
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  26.8 219    Pg    9:53:51.81    0.30
                  Sg      53:54.49   -0.75
ABAH  57.0 137    Sg    9:54:05.09    0.24
PSZ  103.4 216    Pg    9:54:05.85    0.66
                  Sg      54:18.68   -0.92
KOLS 118.2  76    Sg    9:54:23.67   -0.63
```

850.

```
 2019-09-21  time:  8:46:40.04 UTC  ML= 1.0
   lat: 46.170N  lon: 18.301E  h=  0.0 km
                 erh= 0.4km    erz=75.5km
   nr=  6        gap=200       rms=0.04
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  18.0 240    Pg    8:46:43.20   -0.06
                  Sg      46:45.86    0.09
PKSM  26.7  80    Pg    8:46:44.83    0.02
                  Sg      46:48.52    0.00
PKSV  31.5 187    Pg    8:46:45.66   -0.01
                  Sg      46:50.08    0.01
```

851.

```
 2019-09-21  time: 10:57:24.04 UTC  ML= 0.3
   lat: 47.481N  lon: 18.306E  h= 10.0 km
                 erh= 9.7km    erz=10.2km
   nr=  6        gap=287       rms=0.15
   Locality: Oroszlány
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSG  11.8 147    Pg   10:57:26.98    0.19
                  Sg      57:28.82   -0.12
CSKK  13.5 195    Pg   10:57:27.06    0.02
                  Sg      57:29.34   -0.04
PKST  32.1 220    Pg   10:57:29.82   -0.22
                  Sg      57:34.88    0.17
```

852.

```
 2019-09-24  time:  8:32:23.04 UTC  ML= 1.3
   lat: 45.861N  lon: 18.417E  h=  0.0 km
                 erh= 4.0km    erz= 594km
   nr=  7        gap=259       rms=0.40
   Locality: Villány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSV  13.2 283    Pg    8:32:25.14   -0.25
                  Sg      32:27.23    0.00
KOVH  35.2 316    Pg    8:32:29.53    0.20
                  Sg      32:34.13   -0.11
PKSM  42.6  24    PgU   8:32:30.87    0.21
                  Sg      32:36.91    0.32
PKB4  72.0  12    Sg    8:32:43.84   -2.10
```

853.

```
 2019-09-24  time:  8:51:25.64 UTC  ML= 1.2
   lat: 46.116N  lon: 18.017E  h=  0.0 km
                 erh= 2.5km    erz= 411km
   nr=  8        gap=237       rms=0.30
   Locality: Bükkösd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   7.1 115    Pg    8:51:26.92    0.01
                  Sg      51:27.98    0.09
PKSV  31.1 144    Pg    8:51:31.20    0.00
                  Sg      51:35.77    0.24
PKSM  49.4  77    Pg    8:51:34.19   -0.27
                  Sg      51:40.50   -0.84
PKS9  56.2  21    Sg    8:51:43.66    0.17
PKB5  76.8  46    Sg    8:51:50.62    0.56
```

854.

```
 2019-09-24  time:  9:38:55.17 UTC  ML= 1.8
   lat: 48.370N  lon: 19.808E  h=  0.0 km
                 erh= 4.5km    erz= 550km
   nr=  5        gap=263       rms=0.26
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   50.6 173    Pg    9:39:03.97   -0.23
                  Sg      39:11.52    0.26
KECS  51.7  76    Pg    9:39:04.66    0.26
                  Sg      39:11.66    0.05
ABAH 106.5  94    Sg    9:39:28.61   -0.40
```

855.

```
 2019-09-24  time: 11:06:29.84 UTC  ML= 0.7
   lat: 47.201N  lon: 18.286E  h=  0.0 km
                 erh= 0.8km    erz= 213km
   nr=  6        gap=146       rms=0.12
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.2 354    Pg   11:06:32.95   -0.13
                  Sg      06:35.52   -0.09
PKST  20.1 289    Pg   11:06:33.60    0.17
                  Sg      06:36.14   -0.09
PKSG  22.7  20    Sg   11:06:37.17    0.12
PKSM 113.2 166    Sg   11:07:05.81   -0.02
```

856.

```
 2019-09-24  time: 13:58:41.93 UTC  ML= 1.8
   lat: 48.535N  lon: 20.746E  h=  0.0 km
                 erh= 3.7km    erz= ***km
   nr= 10        gap=122       rms=0.86
   Locality: Bódvaszilas
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  20.1 253    Pg   13:58:45.55    0.03
                  Sg      58:48.13   -0.18
ABAH  45.2 126    Pg   13:58:50.15    0.15
                  Sg      58:55.81   -0.49
PSZ   93.3 223    Pg   13:58:58.01   -0.58
                  Sg      59:12.10    0.51
LANS 116.1 306   ePg   13:59:01.80   -0.86
                 eSg      59:19.90    1.07
KOLS 120.8  69   ePg   13:59:05.80    2.31
                 eSg      59:17.60   -2.71
```

857.

```
 2019-09-24  time: 18:40:09.27 UTC  ML= 0.2
   lat: 47.411N  lon: 18.243E  h=  0.3 km
                 erh= 2.2km    erz=40.4km
   nr=  5        gap=238       rms=0.33
   Locality: Pusztavám
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   5.5 166    Pg   18:40:10.02   -0.23
                  Sg      40:10.35   -0.67
PKSG  11.4 101    Pg   18:40:11.61    0.31
                  Sg      40:13.01    0.13
PKST  23.1 223    Sg   18:40:16.88    0.26
```

858.

```
 2019-09-24  time: 20:48:08.63 UTC  ML= 0.9
   lat: 47.396N  lon: 18.253E  h=  8.9 km
                 erh= 5.0km    erz= 1.9km
   nr=  7        gap=225       rms=0.40
   Locality: Mór
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   3.7 171    Pg   20:48:10.06   -0.28
                  Sg      48:10.44   -1.23
PKSG  10.4  92    PgD  20:48:11.42    0.35
                  Sg      48:12.98    0.00
PKST  22.4 227    PgD  20:48:13.15    0.22
                  Sg      48:16.67    0.38
PKSM 134.9 167    Sn   20:48:48.69   -0.38
```

859.

```
 2019-09-24  time: 23:02:26.06 UTC  ML= 0.8
   lat: 47.334N  lon: 18.279E  h=  3.6 km
                 erh= 4.3km    erz= 4.2km
   nr=  7        gap=115       rms=0.21
   Locality: Söréd
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   3.5 336    Pg   23:02:26.85   -0.11
                  Sg      02:27.23   -0.43
PKSG  10.6  53    Pg   23:02:28.16    0.10
                  Sg      02:29.80    0.18
PKST  20.3 246    PgD  23:02:29.94    0.19
                  Sg      02:32.72    0.10
PKSM 127.8 167    Sn   23:03:05.72   -0.41
```

860.

```
 2019-09-25  time:  0:32:14.10 UTC  ML= 1.5
   lat: 48.782N  lon: 19.900E  h=  0.2 km
                 erh= 2.7km    erz= ***km
   nr= 12        gap= 96       rms=0.94
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
LANS  51.7 322    Pg    0:32:23.62    0.28
                  Sg      32:29.80   -0.75
KECS  54.5 128    Pg    0:32:24.93    1.09
                  Sg      32:30.83   -0.60
NIE   77.0  23    Pg    0:32:28.21    0.36
                  Sg      32:36.78   -1.79
A336  90.3 227    Pg    0:32:30.95    0.72
                  Sg      32:41.00   -1.81
PSZ   96.1 180    Pg    0:32:31.82    0.56
                  Sg      32:43.81   -0.83
ABAH 112.8 119    Pg    0:32:34.65    0.41
                  Sg      32:47.69   -2.25
```

861.

```
 2019-09-25  time:  6:31:48.86 UTC  ML= 1.8
   lat: 47.897N  lon: 19.423E  h=  0.0 km
                 erh= 1.3km    erz= 2.8km
   nr= 11        gap=135       rms=0.34
   Locality: Bercel
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  15.9 222    Pg    6:31:51.37   -0.33
                  Sg      31:54.13    0.21
PSZ   35.3  86    Pg    6:31:55.00   -0.16
                  Sg      31:59.92   -0.16
A336  48.9 320    Pg    6:31:58.02    0.43
                  Sg      32:03.83   -0.58
PKSG  95.8 234    Pg    6:32:05.88   -0.09
                  Sg      32:19.56    0.24
KECS 102.4  50   ePg    6:32:07.70    0.56
                 eSg      32:20.80   -0.60
MODS 168.3 288   eSn    6:32:38.80    0.07
```

862.

```
 2019-09-25  time:  7:45:56.97 UTC  ML= 1.3
   lat: 47.498N  lon: 16.298E  h=  1.5 km
                 erh= 4.3km    erz=66.0km
   nr=  9        gap=201       rms=0.98
   Locality: Austria
   Comments:

sta   dist azm  phase  hr mn  sec     res
RONA  22.4 360    Pg    7:46:01.19    0.21
                  Sg      46:03.36   -0.75
SOP   28.4  44    Pg    7:46:01.99   -0.06
                  Sg      46:04.66   -1.35
CONA  58.0 326    Pg    7:46:08.95    1.62
                  Sg      46:15.64    0.24
ARSA  64.7 245    Sg    7:46:16.07   -1.47
MODS 121.8  37   ePg    7:46:19.20    0.48
                 eSg      46:34.10   -1.58
```

863.

```
 2019-09-25  time:  9:03:00.46 UTC  ML= 1.8
   lat: 47.845N  lon: 19.057E  h=  0.0 km
                 erh= 4.7km    erz= 545km
   nr=  5        gap=245       rms=0.35
   Locality: Verőce
   Comments: probably explosion
```

sta	dist	azm	phase	hr mn sec	res
PENC	17.9	110	Pg	9:03:04.04	0.39
			Sg	03:06.36	0.21
A336	43.4	354	Sg	9:03:14.45	0.19
PSZ	63.2	83	Pg	9:03:11.40	-0.35
			Sg	03:20.03	-0.52

864.

2019-09-25 time: 9:13:32.73 UTC ML= 1.9
lat: 45.723N lon: 17.267E h= 0.0 km
erh= 4.4km erz= 4.5km
nr= 12 gap=198 rms=0.64
Locality: Croatia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	76.3	58	Pg	9:13:46.78	0.43
			Sg	13:57.42	0.44
PKSV	78.7	77	Pg	9:13:47.34	0.55
			Sg	13:57.40	-0.36
BEHE	91.3	335	Pg	9:13:47.81	-1.22
PTJ	103.6	281	Pg	9:13:51.49	0.26
			Sg	14:05.14	-0.53
KOGS	112.6	316	Sg	9:14:09.87	1.36
PKSM	119.6	63	Pg	9:13:53.92	-0.16
			Sg	14:09.79	-0.94
CRES	141.3	275	Pn	9:13:57.70	0.33
			Sn	14:16.12	-0.48

865.

2019-09-25 time: 9:31:14.06 UTC ML= 0.9
lat: 47.213N lon: 18.267E h= 0.0 km
erh= 3.1km erz= 400km
nr= 6 gap=261 rms=0.25
Locality: Iszkaszentgyörgy
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	16.8	358	Pg	9:31:16.67	-0.38
			Sg	31:19.11	-0.28
PKST	18.4	286	Pg	9:31:17.42	0.08
			Sg	31:19.98	0.09
PKSG	22.0	25	Pg	9:31:18.21	0.22
			Sg	31:21.37	0.31

866.

2019-09-25 time: 9:58:00.40 UTC ML= 1.5
lat: 47.085N lon: 17.966E h= 0.0 km
erh= 2.8km erz= 418km
nr= 9 gap=200 rms=0.32
Locality: Litér
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	20.0	15	Pg	9:58:03.60	-0.38
			Sg	58:06.85	0.08
CSKK	38.1	36	Pg	9:58:07.40	0.19
			Sg	58:12.62	0.10
PKSG	46.9	43	Pg	9:58:08.64	-0.13
			Sg	58:15.30	0.00
PKSM	109.9	152	Pg	9:58:20.68	0.65
			Sg	58:35.09	-0.25
KOVH	111.2	175	Sg	9:58:35.36	-0.39

867.

2019-09-25 time: 11:47:19.30 UTC ML= 0.6
lat: 47.357N lon: 18.264E h= 2.4 km
erh= 5.0km erz= 2.4km
nr= 5 gap=170 rms=0.06
Locality: Csókakő
Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	0.7	336	Pg	11:47:19.80	0.06
			Sg	47:20.08	-0.01
PKSG	10.3	68	Pg	11:47:21.10	-0.08
			Sg	47:22.73	0.08
PKST	20.5	238	Sg	11:47:25.86	-0.01

868.

2019-09-26 time: 0:57:05.05 UTC ML= 2.7
lat: 45.815N lon: 21.083E h= 12.0 km
erh= 1.4km erz= 1.1km
nr= 49 gap= 39 rms=0.75
Locality: Romania
Comments:

sta	dist	azm	phase	hr mn sec	res
TIM	13.8	129	PgC	0:57:08.40	0.07
			Sg	57:11.80	0.92
BZS	47.0	118	Pg	0:57:13.54	-0.19
			Sg	57:19.28	-1.21
BANR	48.3	175	PgC	0:57:14.08	0.14
			Sg	57:20.00	-0.86
SIRR	67.2	42	PgD	0:57:16.80	-0.45
			Sg	57:25.30	-1.47
SURR	81.3	95	PgC	0:57:19.39	-0.34
			Sg	57:30.50	-0.68
FRGS	125.0	233	Pn	0:57:25.49	-0.64
			Sn	57:40.88	-1.69
MDVR	125.1	157	PnD	0:57:26.10	-0.04
			Sn	57:41.80	-0.79
GZR	140.2	110	PnC	0:57:29.21	1.18
			Sn	57:45.80	-0.16
DEV	141.6	87	PnC	0:57:29.10	0.89
			Sn	57:45.00	-1.27
PKS6	146.1	307	Pn	0:57:28.81	0.04
			Sn	57:46.27	-0.99
HERR	147.3	135	PnD	0:57:29.48	0.56
			Sn	57:47.30	-0.23
BORR	151.7	21	Sn	0:57:48.50	0.00
PKSN	152.4	322	Sn	0:57:48.27	-0.39
PKB3	160.9	295	Pn	0:57:30.50	-0.11
			Sn	57:48.45	-2.09
PKS2	162.9	298	Pn	0:57:31.07	0.21
DRGR	165.9	49	Pn	0:57:31.30	0.07
PKB2	171.1	304	Sn	0:57:54.42	1.60
DJES	173.4	139	PnD	0:57:33.02	0.84
			Sn	57:53.40	0.07
BSZH	176.5	339	Pn	0:57:32.16	-0.40
RMGR	179.9	135	Sn	0:57:55.80	1.03
MARR	183.9	59	PnD	0:57:34.10	0.62
			Sn	57:55.70	0.05
PKSM	194.2	283	Pn	0:57:34.24	-0.52
PKB5	200.8	296	Pn	0:57:36.52	0.93
PKB4	205.9	292	Pn	0:57:37.80	1.57
MESR	206.3	44	PnC	0:57:37.54	1.27
PKB1	206.8	301	Pn	0:57:36.94	0.61
LOT	213.4	101	PnC	0:57:37.71	0.55
CJR	218.1	63	PnC	0:57:39.13	1.38
PKSV	220.0	272	Pn	0:57:37.61	-0.38
BOVS	247.2	168	PnC	0:57:41.80	0.42
PSZ	250.8	339	Pn	0:57:41.90	0.08
BBLS	253.6	211	Pn	0:57:44.06	1.89
PKSG	270.7	310	Pn	0:57:44.38	0.08
ABAH	276.1	2	Pn	0:57:45.11	0.14
ARCR	288.3	61	PnC	0:57:47.03	0.54

```
VOIR 312.2  98    PnD   0:57:50.63    1.15*
BLY  328.1 249    Pn    0:57:51.51    0.05*
DOPR 334.6  87    PnC   0:57:53.65    1.38*
MLR  380.7  95    PnD   0:57:59.22    1.20*
RONA 421.5 300    Pn    0:58:03.91    0.81*
                  Sn      58:45.11   -3.27*
CRES 437.2 270    Pn    0:58:04.71   -0.36*
```

869.

```
 2019-09-26  time:  8:49:21.54 UTC  ML= 1.5
   lat: 48.609N  lon: 20.766E  h=  0.0 km
                 erh= 2.3km    erz= 567km
   nr=  8        gap=192       rms=0.41
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  25.0 236    Pg    8:49:26.32    0.32
                  Sg      49:29.20   -0.28
ABAH  49.4 135    Pg    8:49:30.47    0.11
                  Sg      49:36.68   -0.56
PSZ  100.4 220    Pg    8:49:39.74    0.27
                  Sg      49:52.87   -0.58
LANS 112.7 302    Pg    8:49:41.97    0.31
                  Sg      49:56.31   -1.04
```

870.

```
 2019-09-26  time: 10:14:37.74 UTC  ML= 2.2
   lat: 48.645N  lon: 21.383E  h=  0.0 km
                 erh= 6.0km    erz= ***km
   nr=  7        gap=169       rms=0.93
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  40.2 195    Pg   10:14:45.61    0.69
                  Sg      14:51.87    1.35
KECS  68.6 255    Pg   10:14:50.07    0.08
                  Sg      14:58.22   -1.33
KOLS  72.9  64    Pg   10:14:51.53    0.78
TRPA 103.0 124    Pg   10:14:55.23   -0.90
                  Sg      15:08.89   -1.59
```

871.

```
 2019-09-26  time: 11:09:35.92 UTC  ML= 1.9
   lat: 47.333N  lon: 18.451E  h=  0.0 km
                 erh= 2.7km    erz= 536km
   nr=  7        gap=208       rms=0.35
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.0 325    Pg   11:09:37.66    0.31
                  Sg      09:38.10   -0.36
CSKK  14.8 283    Pg   11:09:38.88    0.31
                  Sg      09:40.15   -0.48
PKST  32.6 255    Pg   11:09:41.40   -0.34
                  Sg      09:46.74    0.46
PKSM 125.5 173    Sg   11:10:15.59   -0.23
```

872.

```
 2019-09-26  time: 23:35:37.87 UTC  ML= 0.6
   lat: 47.391N  lon: 18.241E  h=  0.1 km
                 erh= 3.5km    erz=72.8km
   nr=  6        gap=223       rms=0.07
   Locality: Mór
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   3.5 154    Pg   23:35:38.61    0.12
                  Sg      35:38.87   -0.10
PKSG  11.3  90    PgD  23:35:39.86   -0.03
                  Sg      35:41.43   -0.04
PKST  21.4 227    PgD  23:35:41.70    0.00
                  Sg      35:44.63   -0.05
```

873.

```
 2019-09-27  time:  8:44:48.41 UTC  ML= 1.5
   lat: 47.567N  lon: 16.312E  h=  7.4 km
                 erh= 2.9km    erz= 2.3km
   nr= 13        gap=152       rms=0.77
   Locality: Austria
   Comments:

sta   dist azm  phase  hr mn  sec     res
RONA  14.8 355    Pg    8:44:51.26   -0.10
                  Sg      44:53.65   -0.02
SOP   22.6  55    Pg    8:44:52.36   -0.29
                  Sg      44:54.83   -1.13
CONA  52.5 320    Pg    8:44:58.39    0.51
                  Sg      45:05.05   -0.21
ARSA  69.2 239    Sg    8:45:10.11   -0.42
MODS 115.0  39   ePn    8:45:10.60    1.76
                 eSn      45:23.90   -0.87
GROS 137.6 207    Sn    8:45:30.57    0.80
PERS 137.7 221    Sn    8:45:28.31   -1.49
KRUC 166.3   2    Pn    8:45:15.86    0.63
                  Sn      45:35.45   -0.70
```

874.

```
 2019-09-27  time: 11:06:01.24 UTC  ML= 2.1
   lat: 48.199N  lon: 21.211E  h=  0.0 km
                 erh= 0.5km    erz= 0.7km
   nr=  6        gap=158       rms=0.83
   Locality: Ond
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  11.0  11    Pg   11:06:02.95   -0.25
HU02  51.8 260    Pg   11:06:11.35    0.87
JOS   59.7 304    Pg   11:06:12.19    0.28
KECS  62.4 300    Pg   11:06:12.83    0.45
TRPA  99.1  94    Pg   11:06:19.05    0.12
PENC 151.0 252    Pn   11:06:25.13   -1.97
```

875.

```
 2019-09-28  time:  8:32:19.66 UTC  ML= 0.9
   lat: 46.140N  lon: 18.320E  h=  0.0 km
                 erh= 1.6km    erz= 476km
   nr=  7        gap=118       rms=0.32
   Locality: Vasas
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  18.0 251    Pg    8:32:22.32   -0.54
                  Sg      32:25.26   -0.10
PKSM  26.1  72    Pg    8:32:24.30   -0.01
                  Sg      32:27.86   -0.09
PKSV  28.5 191    Pg    8:32:24.91    0.17
                  Sg      32:29.23    0.52
PKS9  49.7 356    Sg    8:32:35.88    0.41
```

876.

```
 2019-09-29  time:  6:26:06.91 UTC  ML= 0.6
   lat: 47.296N  lon: 18.210E  h=  7.4 km
                 erh= 1.5km    erz= 1.2km
   nr=  6        gap=200       rms=0.04
   Locality: Bodajk
   Comments:
```

```
sta   dist azm  phase  hr mn  sec     res
CSKK   8.4  27    Pg    6:26:08.90    0.00
                  Sg      26:10.39   -0.06
PKST  13.9 253    Pg    6:26:09.73    0.00
                  Sg      26:11.91   -0.01
PKSG  17.3  52    Pg    6:26:10.26   -0.01
                  Sg      26:12.98    0.09
```

877.

```
 2019-09-29  time:  7:30:26.79 UTC  ML= 0.4
   lat: 47.411N  lon: 18.099E  h=  0.7 km
                 erh= 2.5km    erz=39.0km
   nr=  6        gap=259       rms=0.21
   Locality: Aka
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK  13.3 114    Pg    7:30:29.42    0.25
                  Sg      30:30.82   -0.21
PKST  17.6 196    Pg    7:30:30.02    0.08
                  Sg      30:32.13   -0.26
PKSG  22.1  96    Pg    7:30:30.82    0.07
                  Sg      30:33.43   -0.40
```

878.

```
 2019-09-29  time: 19:52:54.55 UTC  ML= 0.6
   lat: 47.231N  lon: 17.818E  h=  5.4 km
                 erh= 6.2km    erz=18.3km
   nr=  7        gap=220       rms=0.74
   Locality: Pénzesgyőr
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKST  16.7  79    Pg   19:52:58.31    0.63
                  Sg      52:59.42   -0.70
HU08  23.7  20    Sg   19:53:02.73    0.45
CSKK  36.6  66    Sg   19:53:05.72   -0.58
EGYH  42.2 299    Sg   19:53:07.08   -0.99
PKSG  46.9  68    Pg   19:53:03.73    0.76
                  Sg      53:08.54   -1.01
```

879.

```
 2019-09-29  time: 20:07:00.47 UTC  ML= 0.7
   lat: 47.278N  lon: 17.923E  h=  7.3 km
                 erh= 3.0km    erz= 2.3km
   nr=  9        gap=205       rms=0.42
   Locality: Nagyesztergár
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKST   8.7 104    Pg   20:07:02.52    0.02
                  Sg      07:03.58   -0.50
HU08  17.0   0    Sg   20:07:05.70   -0.64
CSKK  27.2  70    Pg   20:07:05.82    0.32
                  Sg      07:08.98   -0.45
PKSG  37.5  70    Pg   20:07:07.94    0.64
                  Sg      07:12.52   -0.11
A267  56.3 131    Sg   20:07:18.69    0.19
PKSM 130.7 155    Sn   20:07:39.81   -0.52
```

880.

```
 2019-09-29  time: 21:24:23.14 UTC  ML= 0.5
   lat: 47.289N  lon: 17.968E  h=  1.1 km
                 erh= 2.5km    erz=13.8km
   nr=  6        gap=225       rms=0.23
   Locality: Bakonynána
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKST   6.0 123    Pg   21:24:24.01   -0.22
                  Sg      24:25.18    0.11
HU08  16.2 348    Sg   21:24:28.29   -0.02
CSKK  23.6  69    Sg   21:24:30.24   -0.41
PKSG  33.9  70    Pg   21:24:29.47    0.26
                  Sg      24:34.13    0.20
```

881.

```
 2019-09-30  time:  7:32:18.82 UTC  ML= 1.9
   lat: 47.909N  lon: 19.410E  h=  0.0 km
                 erh= 2.3km    erz= 728km
   nr=  7        gap=128       rms=0.48
   Locality: Becske
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  16.3 216    Pg    7:32:21.81    0.08
                  Sg      32:23.56   -0.43
PSZ   36.2  88    PgU   7:32:25.50    0.21
                  Sg      32:30.42    0.08
A336  47.3 320    Pg    7:32:27.85    0.57
                  Sg      32:33.31   -0.56
KECS 102.4  51    Sg    7:32:50.16   -1.20
```

882.

```
 2019-09-30  time:  9:23:40.15 UTC  ML= 1.6
   lat: 48.600N  lon: 20.722E  h=  0.0 km
                 erh= 2.8km    erz= 5.2km
   nr= 11        gap=128       rms=0.79
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  21.7 233    Pg    9:23:44.35    0.32
                  Sg      23:46.55   -0.51
ABAH  51.1 131    Pg    9:23:49.39    0.12
                  Sg      23:55.09   -1.30
PSZ   97.6 219    Pg    9:23:59.03    1.46
                  Sg      24:10.63   -0.53
LANS 110.5 304   ePg    9:24:00.10    0.22
                 eSg      24:13.80   -1.48
KOLS 119.9  72   ePg    9:24:01.60    0.03
                 eSg      24:18.40    0.13
A336 133.9 252    Sn    9:24:21.09   -1.30
```

883.

```
 2019-09-30  time: 10:47:43.17 UTC  ML= 0.5
   lat: 47.208N  lon: 18.303E  h=  0.0 km
                 erh= 1.0km    erz= 138km
   nr=  6        gap=268       rms=0.08
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  17.6 349    Pg   10:47:46.22   -0.09
                  Sg      47:48.76    0.00
PKST  21.1 286    Pg   10:47:47.05    0.11
                  Sg      47:49.76   -0.12
PKSG  21.5  18    Pg   10:47:47.01    0.00
                  Sg      47:50.10    0.09
```

884.

```
 2019-10-01  time:  8:00:36.80 UTC  ML= 1.4
   lat: 48.000N  lon: 20.354E  h=  0.0 km
                 erh= 2.1km    erz= 403km
   nr=  6        gap=192       rms=0.25
   Locality: Szarvaskő
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   35.5 255    Pg    8:00:43.47    0.32
```

```
                 Sg      00:47.67   -0.43
KECS  54.6  10   Pg    8:00:46.73    0.18
                 Sg      00:54.14   -0.02
ABAH  73.6  63   Pg    8:00:49.79   -0.16
                 Sg      00:59.95   -0.26
```

885.

```
 2019-10-01  time: 16:10:08.22 UTC  ML= 0.8
   lat: 47.347N  lon: 18.362E  h= 13.0 km
                 erh= 2.4km    erz= 1.0km
   nr=  6        gap=225       rms=0.04
   Locality: Zámoly
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSG   5.4  23   PgU  16:10:10.76    0.02
                 Sg      10:12.66   -0.04
CSKK   7.9 283   PgD  16:10:10.89   -0.05
                 Sg      10:13.12    0.06
PKST  26.7 248   Pg   16:10:13.56    0.04
                 Sg      10:17.62   -0.04
```

886.

```
 2019-10-02  time:  6:25:56.30 UTC  ML= 1.0
   lat: 47.300N  lon: 18.328E  h=  0.0 km
                 erh= 2.1km    erz= 3.3km
   nr=  8        gap=109       rms=0.37
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   8.7 324   Pg    6:25:57.93    0.08
                 Sg      25:58.43   -0.63
PKSG  11.2  25   Pg    6:25:58.63    0.32
                 Sg      25:59.85   -0.02
PKST  22.7 258   Pg    6:26:00.48    0.13
                 Sg      26:03.78    0.27
PKSM 123.3 169   Sg    6:26:34.14   -1.37
PSZ  136.4  60   Sn    6:26:38.77   -0.32
```

887.

```
 2019-10-02  time:  7:30:16.01 UTC  ML= 1.5
   lat: 47.339N  lon: 18.432E  h=  0.0 km
                 erh= 1.5km    erz= 522km
   nr= 10        gap=113       rms=0.41
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   6.6 332   PgU   7:30:16.94   -0.25
                 Sg      30:17.56   -0.55
CSKK  13.2 282   Pg    7:30:18.38    0.02
                 Sg      30:19.60   -0.60
PKST  31.3 253   Pg    7:30:22.05    0.45
                 Sg      30:26.29    0.32
A336 108.1  23   Sg    7:30:50.67    0.30
PKSM 126.3 173   Sg    7:30:55.43   -0.73
PSZ  127.4  60   Pg    7:30:39.26    0.50
                 Sg      30:56.29   -0.22
```

888.

```
 2019-10-02  time: 10:05:33.55 UTC  ML= 1.6
   lat: 48.604N  lon: 20.770E  h=  0.0 km
                 erh= 1.7km    erz= 380km
   nr=  6        gap=192       rms=0.22
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.9 237   Pg   10:05:38.09    0.09
                 Sg      05:40.99   -0.48
ABAH  48.7 135   Pg   10:05:42.38    0.12
                 Sg      05:48.76   -0.29
PSZ  100.2 220   Sg   10:06:05.73    0.34
LANS 113.2 302   Pg   10:05:53.73   -0.04
```

889.

```
 2019-10-02  time: 16:07:22.40 UTC  ML= 0.6
   lat: 47.276N  lon: 18.224E  h=  6.3 km
                 erh= 4.1km    erz= 5.1km
   nr=  6        gap=218       rms=0.08
   Locality: Kincsesbánya
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK  10.0  16   Pg   16:07:24.65    0.13
                 Sg      07:26.04   -0.13
PKST  14.5 262   PgD  16:07:25.17   -0.05
                 Sg      07:27.44    0.02
PKSG  18.0  44   PgU  16:07:25.81    0.00
                 Sg      07:28.41   -0.05
```

890.

```
 2019-10-02  time: 21:06:12.89 UTC  ML= 1.7
   lat: 47.735N  lon: 16.210E  h= 10.0 km
                 erh= 2.4km    erz= 1.8km
   nr= 18        gap= 93       rms=0.73
   Locality: Austria
   Comments:

sta   dist azm  phase  hr mn  sec     res
RONA   7.6 121   PgU  21:06:15.68    0.55
                 Sg      06:17.27    0.39
SOP   26.8 102   Pg   21:06:18.11    0.11
                 Sg      06:21.32   -0.66
CONA  33.8 309   Pg   21:06:19.47    0.29
                 Sg      06:24.34    0.26
ARSA  74.7 224   Pg   21:06:26.25   -0.10
                 Sg      06:35.15   -1.70
ZST   84.1  52   Pg   21:06:27.07   -0.94
EGYH  91.5 113   Pg   21:06:29.51    0.18
MODS 106.7  48   eP*  21:06:31.80   -0.13
                 eS*     06:44.20   -2.57
MOA  146.2 275   Pn   21:06:38.10    1.23
                 Sn      06:56.81    1.23
PKST 147.3 111   Pn   21:06:37.96    0.94
PERS 147.7 214   Sn   21:06:54.24   -1.67
KRUC 148.2   5   Pn   21:06:36.57   -0.55
VRAC 177.2   9   Pn   21:06:40.39   -0.35
```

891.

```
 2019-10-03  time:  8:32:00.08 UTC  ML= 2.2
   lat: 48.251N  lon: 18.796E  h=  0.0 km
                 erh= 2.5km    erz= 6.0km
   nr= 12        gap=109       rms=1.03
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A336  15.2  98   Pg    8:32:03.34    0.55
                 Sg      32:06.08    1.17
A338  42.2 232   Sg    8:32:14.35    0.85
PENC  62.8 145   Sg    8:32:19.88   -0.15
PKSG 100.3 198   Sg    8:32:31.29   -0.67
CSKK 106.6 202   Sg    8:32:33.43   -0.54
LANS 111.5  26   eSg   8:32:36.00    0.47
MODS 113.5 277   ePg   8:32:21.40    1.05
                 eSg     32:34.90   -1.26
ZST  126.0 267   Sg    8:32:39.89   -0.25
KECS 127.8  78   Sg    8:32:38.08   -2.62
EGYH 143.6 230   Sn    8:32:42.35   -2.13
```

892.

```
 2019-10-03  time:  8:35:57.69 UTC  ML= 1.2
   lat: 46.233N  lon: 18.222E  h=  0.0 km
                 erh= 1.8km    erz= 235km
   nr=  6        gap=244       rms=0.47
   Locality: Mecsekpölöske
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  18.7 210    Pg    8:36:01.70    0.68
                  Sg      36:03.41   -0.21
PKSM  32.5  94    Pg    8:36:03.59    0.10
                  Sg      36:07.60   -0.41
PKSV  38.4 176    Pg    8:36:04.52   -0.03
                  Sg      36:08.81   -1.08
```

893.

```
 2019-10-03  time: 12:50:48.35 UTC  ML= 2.1
   lat: 45.923N  lon: 16.977E  h=  5.5 km
                 erh= 3.2km    erz= 3.3km
   nr= 13        gap=173       rms=0.76
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  62.8 346    Pg   12:51:00.48    0.88
                  Sg      51:08.92    0.54
PTJ   79.1 268    Pg   12:51:03.00    0.49
                  Sg      51:12.08   -1.47
KOGS  81.0 316    Pg   12:51:03.22    0.38
                  Sg      51:12.56   -1.59
KOVH  88.9  78    Pg   12:51:04.61    0.36
                  Sg      51:15.52   -1.13
PKSV  99.0  92    Pg   12:51:05.88   -0.17
                  Sg      51:18.54   -1.33
CRES 118.5 265    Pn   12:51:10.03    0.58
                  Sn      51:25.24   -0.68
MORH 133.0  76    Sn   12:51:29.07   -0.06
```

894.

```
 2019-10-04  time:  7:43:06.90 UTC  ML= 1.6
   lat: 48.110N  lon: 21.336E  h=  0.0 km
                 erh= 2.8km    erz= 4.8km
   nr=  9        gap=170       rms=0.74
   Locality: Tarcal
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  21.9 341    Pg    7:43:10.90    0.10
                  Sg      43:14.11    0.26
KECS  75.5 303    Pg    7:43:21.09    0.72
                  Sg      43:29.98   -0.91
TRPA  89.6  89    Pg    7:43:23.02    0.11
                  Sg      43:34.50   -0.89
PSZ  109.6 259    Sg    7:43:41.33   -0.41
KOLS 114.8  37    Sg    7:43:42.08   -1.30
KWP  196.8  31    Sn    7:44:04.72    1.61
```

895.

```
 2019-10-04  time:  8:23:25.15 UTC  ML= 1.8
   lat: 48.588N  lon: 20.762E  h=  0.0 km
                 erh= 1.7km    erz= 524km
   nr=  9        gap=100       rms=0.39
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.5 240    Pg    8:23:29.56    0.21
                  Sg      23:32.57   -0.06
ABAH  48.0 133    Pg    8:23:33.58   -0.15
                  Sg      23:40.20   -0.21
NIE   98.0 340    Pg    8:23:42.36   -0.30
PSZ   98.5 221    Pg    8:23:42.87    0.13
                  Sg      23:56.27   -0.18
KOLS 117.6  71    Pg    8:23:47.03    0.88
                  Sg      24:01.69   -0.83
```

896.

```
 2019-10-04  time:  9:57:50.00 UTC  ML= 0.9
   lat: 47.185N  lon: 18.301E  h=  0.0 km
                 erh= 2.8km    erz= 356km
   nr=  6        gap=276       rms=0.22
   Locality: Sárkeszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  20.1 351    Pg    9:57:53.33   -0.25
                  Sg      57:55.96   -0.42
PKST  21.8 292    Pg    9:57:53.95    0.06
                  Sg      57:57.07    0.15
PKSG  24.0  17    Pg    9:57:54.46    0.17
                  Sg      57:57.89    0.26
```

897.

```
 2019-10-04  time: 10:08:25.21 UTC  ML= 1.5
   lat: 47.594N  lon: 16.343E  h=  0.0 km
                 erh= 2.4km    erz= 3.2km
   nr= 14        gap= 77       rms=0.86
   Locality: Austria
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
RONA  12.3 343    Pg   10:08:27.64    0.24
                  Sg      08:28.19   -0.92
SOP   19.0  58    Pg   10:08:28.70    0.10
                  Sg      08:31.09   -0.15
CONA  51.8 316    Pg   10:08:35.50    1.04
ARSA  72.7 238    Pg   10:08:38.37    0.18
                  Sg      08:47.12   -1.20
EGYH  77.0 105    Sg   10:08:50.77    1.08
KOGS 127.6 183    Sg   10:09:04.49   -1.27
PKST 132.9 106    Sn   10:09:06.36   -0.87
MOA  158.4 280    Pn   10:08:53.83    1.84
                  Sn      09:12.58   -0.31
KRUC 163.3   1    Pn   10:08:52.21   -0.39
                  Sn      09:12.07   -1.89
```

898.

```
 2019-10-04  time: 11:13:23.06 UTC  ML= 2.1
   lat: 48.230N  lon: 21.247E  h=  0.0 km
                 erh= 2.1km    erz= 5.4km
   nr=  8        gap=154       rms=0.62
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   7.4 355    Pg   11:13:24.43    0.05
                  Sg      13:25.59    0.18
KECS  63.1 297    Pg   11:13:34.30   -0.03
                  Sg      13:41.91   -1.20
TRPA  96.7  97    Sg   11:13:53.10   -0.70
PSZ  106.6 251    Sg   11:13:57.33    0.39
KOLS 108.9  44    Sg   11:13:57.43   -0.23
STHS 132.0 360   ePn   11:13:47.90    1.35
```

899.

```
 2019-10-05  time:  9:55:43.32 UTC  ML= 1.5
   lat: 47.337N  lon: 18.277E  h=  3.8 km
                 erh= 5.7km    erz= 5.1km
   nr=  7        gap=113       rms=0.20
   Locality: Csákberény
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   3.2 337    Pg    9:55:44.07   -0.14
                  Sg      55:44.45   -0.45
PKSG  10.5  55    PgD   9:55:45.39    0.07
                  Sg      55:46.98    0.10
PKST  20.3 245    Pg    9:55:47.21    0.19
                  Sg      55:50.11    0.22
PKSM 128.1 167    Sn    9:56:23.15   -0.27
```

900.

```
 2019-10-07  time:  9:24:44.36 UTC  ML= 1.5
   lat: 48.551N  lon: 20.782E  h=  1.2 km
                 erh= 5.2km    erz=57.9km
   nr=  5        gap=239       rms=0.28
   Locality: Tornanádaska
   Comments:

sta   dist azm  phase  hr mn  sec     res
KECS  23.2 251    Pg    9:24:48.21   -0.29
                  Sg      24:51.78    0.05
ABAH  44.2 130    Sg    9:24:58.45    0.04
PSZ   96.4 223    Pg    9:25:01.98    0.40
                  Sg      25:14.73   -0.28
```

901.

```
 2019-10-07  time: 11:08:54.00 UTC  ML= 1.4
   lat: 47.888N  lon: 19.184E  h=  0.0 km
                 erh= 0.2km    erz=49.1km
   nr=  6        gap=194       rms=0.03
   Locality: Felsőpetény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  13.1 146    Pg   11:08:56.34    0.00
                  Sg      08:58.14   -0.02
A336  40.8 340    Pg   11:09:01.32    0.04
                  Sg      09:06.90   -0.05
PSZ   53.2  86    Pg   11:09:03.49   -0.01
                  Sg      09:10.92    0.01
```

902.

```
 2019-10-07  time: 21:57:05.73 UTC  ML= 1.2
   lat: 47.725N  lon: 18.284E  h= 16.1 km
                 erh= 2.0km    erz= 1.4km
   nr= 20        gap=101       rms=0.65
   Locality: Almásfüzitő
   Comments:

sta   dist azm  phase  hr mn  sec     res
SRO   10.1  13    Pg   21:57:10.01    0.89
                  Sg      57:10.92   -0.85
HU09  12.1 143    Pg   21:57:09.20   -0.13
                  Sg      57:11.76   -0.38
A338  32.7   9    Pg   21:57:12.95    0.71
                  Sg      57:16.66   -0.65
PKSG  37.9 168    Pg   21:57:13.87    0.78
                  Sg      57:19.27    0.45
CSKK  40.3 183    Pg   21:57:14.40    0.92
                  Sg      57:19.34   -0.18
HU08  42.4 220    Pg   21:57:13.79   -0.05
                  Sg      57:19.71   -0.45
PKST  55.1 200    Pg   21:57:15.77   -0.22
                  Sg      57:23.32   -0.67
BUD   61.8 116    Sg   21:57:24.71   -1.31
A336  77.7  43    P*   21:57:19.99    0.19
                  S*      57:29.39   -1.38
EGYH  79.4 244    S*   21:57:30.08   -1.14
A267  87.9 170    P*   21:57:21.11   -0.23
SOP  129.6 268    Sn   21:57:43.79    0.43
```

903.

```
 2019-10-08  time:  7:09:27.16 UTC  ML= 0.9
   lat: 47.300N  lon: 18.328E  h=  0.0 km
                 erh= 1.7km    erz= 275km
   nr=  6        gap=234       rms=0.16
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   8.7 324    Pg    7:09:28.72    0.00
                  Sg      09:29.74   -0.19
PKSG  11.3  25    Pg    7:09:29.18    0.00
                  Sg      09:30.93    0.18
PKST  22.7 259    Pg    7:09:31.07   -0.14
                  Sg      09:34.80    0.43
```

904.

```
 2019-10-08  time:  9:22:30.95 UTC  ML= 1.5
   lat: 48.589N  lon: 20.717E  h=  0.0 km
                 erh= 3.4km    erz= 5.5km
   nr=  8        gap=148       rms=0.67
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  20.7 235    Pg    9:22:34.61   -0.03
                  Sg      22:37.46   -0.06
ABAH  50.6 130    Pg    9:22:40.94    0.97
                  Sg      22:45.29   -1.73
PSZ   96.3 219    Pg    9:22:48.65    0.50
                  Sg      23:01.04   -0.53
NIE   96.9 342    Pg    9:22:48.09   -0.16
A336 133.2 253    Sn    9:23:12.11   -0.91
```

905.

```
 2019-10-08  time:  9:41:35.04 UTC  ML= 0.8
   lat: 47.201N  lon: 18.292E  h=  0.0 km
                 erh= 1.8km    erz= 232km
   nr=  6        gap=269       rms=0.15
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.2 352    Pg    9:41:38.13   -0.17
                  Sg      41:40.63   -0.20
PKST  20.6 288    Pg    9:41:38.84    0.12
                  Sg      41:41.54   -0.04
PKSG  22.5  19    Pg    9:41:39.10    0.04
                  Sg      41:42.46    0.26
```

906.

```
 2019-10-09  time:  1:18:50.71 UTC  ML= 0.4
   lat: 47.359N  lon: 18.271E  h= 10.0 km
                 erh= 4.3km    erz= 1.0km
   nr=  5        gap=170       rms=0.56
   Locality: Csókakő
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   0.9 301    Pg    1:18:52.17   -0.34
                  Sg      18:52.49   -1.42
PKSG   9.8  68    Pg    1:18:53.50    0.29
```

```
                  Sg      18:55.12   -0.04
PKST  21.0 238    Pg    1:18:55.44    0.56
```

907.

```
 2019-10-09  time:  4:13:31.35 UTC  ML= 0.9
   lat: 47.336N  lon: 18.272E  h=  0.5 km
                 erh= 4.3km    erz=33.4km
   nr=  6        gap=189       rms=0.09
   Locality: Csákberény
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   3.1 344    Pg    4:13:31.93    0.02
                  Sg      13:32.26   -0.09
PKSG  10.9  55    Pg    4:13:33.30    0.01
                  Sg      13:34.80   -0.01
PKST  19.9 244    PgD   4:13:35.01    0.11
                  Sg      13:37.40   -0.28
```

908.

```
 2019-10-09  time:  8:03:43.99 UTC  ML= 1.7
   lat: 47.323N  lon: 18.428E  h=  0.0 km
                 erh= 0.9km    erz= 324km
   nr= 10        gap=113       rms=0.25
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.2 340    Pg    8:03:45.22   -0.23
                  Sg      03:45.54   -1.04
CSKK  13.4 289    Pg    8:03:46.57    0.18
                  Sg      03:48.39    0.13
PKST  30.6 257    Pg    8:03:49.69    0.23
                  Sg      03:53.47   -0.26
MORH 124.2 172    Sg    8:04:23.49    0.03
PKSM 124.6 172    Sg    8:04:23.21   -0.38
PSZ  128.6  59    Pg    8:04:07.09    0.14
                  Sg      04:24.96    0.10
```

909.

```
 2019-10-09  time:  9:07:27.32 UTC  ML= 1.8
   lat: 48.758N  lon: 20.726E  h= 10.0 km
                 erh= 5.5km    erz= 4.7km
   nr=  7        gap=166       rms=0.81
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
KECS  35.3 210    Pg    9:07:34.60    0.72
                  Sg      07:37.82   -1.17
ABAH  63.9 144    Pg    9:07:39.19    0.32
                  Sg      07:47.15   -0.72
NIE   79.4 338    Sg    9:07:51.52   -1.26
PSZ  111.9 213    Pn    9:07:47.85    0.82
                  Sn      08:01.65   -0.74
```

910.

```
 2019-10-09  time:  9:30:23.33 UTC  ML= 0.7
   lat: 47.193N  lon: 18.297E  h=  0.0 km
                 erh= 2.6km    erz= 327km
   nr=  6        gap=272       rms=0.20
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  19.1 352    Pg    9:30:26.62   -0.12
                  Sg      30:28.98   -0.42
PKST  21.2 290    Pg    9:30:27.03   -0.09
                  Sg      30:30.36    0.29
PKSG  23.2  18    Pg    9:30:27.68    0.21
                  Sg      30:30.77    0.07
```

911.

```
 2019-10-09  time: 10:48:14.25 UTC  ML= 1.8
   lat: 48.305N  lon: 21.170E  h=  0.0 km
                 erh= 4.0km    erz= 819km
   nr=  8        gap=166       rms=0.63
   Locality: Gibárt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   5.3 101    Pg   10:48:14.69   -0.51
                  Sg      48:15.52   -0.41
JOS   51.3 294    Pg   10:48:23.92    0.51
                  Sg      48:30.04   -0.52
HU02  52.0 247    Pg   10:48:23.52   -0.03
                  Sg      48:28.76   -2.04
KECS  54.4 291    Pg   10:48:24.54    0.57
PSZ  104.2 246    Sg   10:48:48.15    0.76
```

912.

```
 2019-10-10  time:  1:35:07.38 UTC  ML= 1.9
   lat: 46.193N  lon: 16.364E  h= 10.0 km
                 erh= 1.5km    erz= 2.2km
   nr= 15        gap=170       rms=0.41
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
KOGS  29.7 343    Pg    1:35:13.62    0.64
                  Sg      35:18.13    0.78
BEHE  44.2  46    Pg    1:35:15.30   -0.18
                  Sg      35:21.36   -0.43
PTJ   45.3 224    Pg    1:35:15.17   -0.49
                  Sg      35:21.68   -0.44
ZAG   49.6 215    Pg    1:35:16.38   -0.04
                  Sg      35:23.98    0.52
DOBS  69.3 266   iPg    1:35:19.94    0.05
GROS  72.8 294    Pg    1:35:20.57    0.06
                  Sg      35:29.84   -0.90
CRES  81.3 240    Pg    1:35:22.25    0.25
                  Sg      35:33.33   -0.08
PERS 107.8 297    Pn    1:35:26.67    0.09
                  Sn      35:39.72   -1.84
```

913.

```
 2019-10-10  time:  7:02:24.47 UTC  ML= 0.8
   lat: 47.183N  lon: 18.201E  h=  0.0 km
                 erh= 1.3km    erz= 342km
   nr=  7        gap=141       rms=0.22
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  15.2 304    Pg    7:02:27.12   -0.06
                  Sg      02:29.49    0.19
CSKK  20.6  13    Pg    7:02:27.79   -0.35
                  Sg      02:30.93   -0.07
PKSG  27.3  32    Pg    7:02:29.68    0.33
PKSM 113.1 163    Pg    7:02:44.77    0.11
                  Sg      03:00.24   -0.17
```

914.

```
 2019-10-10  time:  8:16:47.06 UTC  ML= 2.1
   lat: 46.851N  lon: 17.290E  h=  0.0 km
                 erh= 3.0km    erz= 920km
   nr=  8        gap=122       rms=0.65
   Locality: Vállus
   Comments: probably explosion
```

```
sta   dist azm  phase  hr mn  sec     res
TIH   46.3  83    Sg    8:17:02.93    1.15
EGYH  63.0   3    Sg    8:17:06.70   -0.39
PKST  72.5  51    Sg    8:17:09.16   -0.95
KOGS  91.3 241    Pg    8:17:03.64    0.27
                  Sg      17:16.61    0.52
CSKK  93.1  52    Sg    8:17:17.33    0.67
PKSG 102.9  54    Sg    8:17:19.77   -0.01
KOVH 105.2 144    Pg    8:17:05.07   -0.77
```

915.

```
 2019-10-10  time:  8:44:32.11 UTC  ML= 1.2
   lat: 46.175N  lon: 18.306E  h=  0.0 km
                 erh= 1.8km    erz= 310km
   nr=  7        gap=202       rms=0.21
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  18.6 239    Pg    8:44:35.16   -0.27
                  Sg      44:38.12    0.09
PKSM  26.2  81    Pg    8:44:37.00    0.21
                  Sg      44:40.57    0.13
MORH  26.5  80    Pg    8:44:36.95    0.11
                  Sg      44:40.11   -0.43
PKSV  32.1 187    Sg    8:44:42.36    0.03
```

916.

```
 2019-10-10  time:  9:12:57.95 UTC  ML= 1.5
   lat: 48.573N  lon: 20.795E  h=  0.0 km
                 erh= 6.8km    erz= 824km
   nr=  6        gap=247       rms=0.48
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  25.0 246    Pg    9:13:02.23   -0.18
                  Sg      13:05.15   -0.74
ABAH  45.1 133    Pg    9:13:06.29    0.29
                  Sg      13:11.40   -0.88
PSZ   98.9 223    Pg    9:13:16.16    0.54
                  Sg      13:29.56    0.17
```

917.

```
 2019-10-10  time:  9:27:13.73 UTC  ML= 1.8
   lat: 47.331N  lon: 18.448E  h=  0.0 km
                 erh= 1.4km    erz= 2.8km
   nr=  9        gap=114       rms=0.36
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   8.0 327    Pg    9:27:15.17    0.00
                  Sg      27:15.67   -0.61
CSKK  14.6 284    Pg    9:27:16.50    0.16
                  Sg      27:17.77   -0.60
PKST  32.3 256    Pg    9:27:19.90    0.40
MORH 124.9 173    Sg    9:27:53.14   -0.29
PKSM 125.3 173    Sg    9:27:53.14   -0.42
PSZ  126.8  59    Sg    9:27:54.37    0.32
KOVH 140.7 191    Sn    9:27:57.89    0.41
```

918.

```
 2019-10-10  time:  9:36:44.32 UTC  ML= 1.0
   lat: 47.202N  lon: 18.278E  h=  0.0 km
                 erh= 1.6km    erz= 494km
   nr= 10        gap=144       rms=0.38
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  17.9 356    Pg    9:36:47.11   -0.41
                  Sg      36:50.07    0.06
PKST  19.5 289    Pg    9:36:47.77   -0.03
                  Sg      36:50.68    0.17
PKSG  22.7  22    Pg    9:36:48.18   -0.19
                  Sg      36:52.06    0.52
MORH 113.2 166    Pg    9:37:05.08    0.54
                  Sg      37:19.89   -0.41
PKSM 113.6 166    Pg    9:37:04.83    0.23
                  Sg      37:19.25   -1.17
```

919.

```
 2019-10-11  time:  9:59:13.23 UTC  ML= 2.2
   lat: 46.815N  lon: 17.310E  h=  0.0 km
                 erh= 2.5km    erz= 3.8km
   nr=  9        gap=119       rms=1.41
   Locality: Vállus
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
BEHE  56.1 227    Sg    9:59:31.99    0.94
PKST  74.0  48    Sg    9:59:38.73    1.99
KOGS  90.8 243    Pg    9:59:30.05    0.60
                  Sg      59:43.43    1.34
KOVH 101.0 143    Sg    9:59:45.65    0.30
MORH 122.2 123    Sg    9:59:50.63   -1.43
PKSM 122.2 123    Sg    9:59:50.84   -1.24
GROS 143.9 254    Sn    9:59:55.37   -2.32
ARSA 144.2 290    Sn    9:59:55.32   -2.43
```

920.

```
 2019-10-13  time: 13:21:20.38 UTC  ML= 0.6
   lat: 47.320N  lon: 18.253E  h=  2.0 km
                 erh= 3.5km    erz= 8.3km
   nr=  5        gap=195       rms=0.23
   Locality: Fehérvárcsurgó
   Comments:

sta   dist azm  phase  hr mn  sec     res
CSKK   4.8   7    Pg   13:21:21.59    0.27
                  Sg      21:21.88   -0.16
PKSG  13.1  53    Pg   13:21:22.85    0.09
                  Sg      21:24.38   -0.23
PKST  17.8 248    Sg   13:21:25.72   -0.37
```

921.

```
 2019-10-13  time: 23:15:48.54 UTC  ML= 0.2
   lat: 47.425N  lon: 18.855E  h=  8.4 km
                 erh= 1.0km    erz= 1.2km
   nr= 11        gap=159       rms=0.28
   Locality: Sóskút
   Comments:

sta   dist azm  phase  hr mn  sec     res
BUD   14.3  63    Pg   23:15:51.62    0.12
                  Sg      15:53.50   -0.30
PKSG  35.3 264    Pg   23:15:55.36    0.34
                  Sg      16:00.30    0.23
CSKK  45.4 261    Sg   23:16:03.02   -0.21
PKST  64.7 253    Sg   23:16:08.96   -0.33
PKB1  71.4 184    Sg   23:16:11.63    0.24
PKB5  92.7 186    Sg   23:16:18.07   -0.07
PKB4 105.0 191    Sg   23:16:21.44   -0.59
MORH 135.4 187    Sn   23:16:29.39    0.19
PKSM 135.9 187    Sn   23:16:29.09   -0.22
```

922.

```
 2019-10-14  time:  7:12:13.79 UTC  ML= 1.5
   lat: 47.583N  lon: 18.484E  h=  0.0 km
                 erh= 2.5km    erz= 218km
   nr=  6        gap=335       rms=0.13
   Locality: Vértestolna
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  22.4 198    Pg    7:12:17.80    0.02
                  Sg      12:20.92    0.03
CSKK  29.7 215    Pg    7:12:18.89   -0.19
                  Sg      12:23.25    0.04
PKST  49.5 223    Pg    7:12:22.80    0.18
                  Sg      12:29.43   -0.08
```

923.

```
 2019-10-14  time: 10:03:44.70 UTC  ML= 1.5
   lat: 48.583N  lon: 20.789E  h=  0.0 km
                 erh= 2.6km    erz= 986km
   nr= 12        gap=114       rms=0.81
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  25.0 244    Pg   10:03:49.10   -0.07
                  Sg      03:51.78   -0.87
ABAH  46.2 134    Pg   10:03:52.83   -0.11
                  Sg      03:59.34   -0.03
STHS  98.5  20   ePg   10:04:02.30    0.02
                 eSg      04:13.70   -2.29
NIE   99.2 339    Pg   10:04:03.87    1.45
                  Sg      04:15.93   -0.31
PSZ   99.4 222    Pg   10:04:03.19    0.74
                  Sg      04:16.22   -0.07
LANS 115.7 303   ePg   10:04:04.20   -1.15
                 eSg      04:18.40   -3.06
```

924.

```
 2019-10-14  time: 10:05:27.69 UTC  ML= 1.6
   lat: 47.858N  lon: 19.153E  h=  0.0 km
                 erh= 1.1km    erz= 420km
   nr= 11        gap=114       rms=0.34
   Locality: Ősagárd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  12.2 128    Pg   10:05:29.99    0.12
                  Sg      05:31.26   -0.31
BUD   42.7 193    Sg   10:05:40.76   -0.51
A336  43.3 345    Pg   10:05:35.29   -0.13
                  Sg      05:41.37   -0.08
PSZ   55.9  83    Pg   10:05:37.95    0.28
                  Sg      05:45.46    0.01
CSKK  86.8 231    Pg   10:05:43.72    0.54
                  Sg      05:54.59   -0.67
KECS 121.1  55   ePg   10:05:49.40    0.09
                 eSg      06:05.50   -0.68
```

925.

```
 2019-10-14  time: 20:25:01.67 UTC  ML= 1.1
   lat: 45.876N  lon: 16.018E  h=  7.0 km
                 erh= 1.5km    erz= 1.1km
   nr=  6        gap=247       rms=0.13
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PTJ    5.4 300    Pg   20:25:03.25    0.01
                  Sg      25:04.45   -0.02
CRES  44.0 263    Pg   20:25:09.70    0.08
                  Sg      25:15.53   -0.29
KOGS  66.1  16    Sg   20:25:22.66   -0.13
GROS  76.3 328    Sg   20:25:26.20    0.19
```

926.

```
 2019-10-15  time:  7:57:45.98 UTC  ML= 1.5
   lat: 47.167N  lon: 17.747E  h=  0.0 km
                 erh= 4.9km    erz= 424km
   nr=  8        gap=253       rms=0.60
   Locality: Herend
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  24.0  65    Pg    7:57:51.01    0.75
                  Sg      57:53.68    0.07
CSKK  44.5  61    Pg    7:57:54.62    0.69
                  Sg      57:59.34   -0.79
PKSG  54.7  63    Sg    7:58:02.26   -1.10
KOVH 123.0 167    Pg    7:58:08.24    0.30
MORH 126.1 147    Pg    7:58:08.13   -0.37
PKSM 126.3 147    Pg    7:58:08.01   -0.53
```

927.

```
 2019-10-15  time:  8:48:09.04 UTC  ML= 1.2
   lat: 47.206N  lon: 18.299E  h=  0.0 km
                 erh= 1.4km    erz= 2.9km
   nr= 10        gap=110       rms=0.41
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  17.7 350    Pg    8:48:12.51    0.31
                  Sg      48:14.38   -0.29
PKST  20.9 286    Pg    8:48:12.72   -0.06
                  Sg      48:15.49   -0.20
PKSG  21.8  19    Pg    8:48:13.27    0.34
                  Sg      48:16.39    0.43
PKSM 113.6 167    Sg    8:48:45.46    0.31
KOVH 125.2 187    Sg    8:48:48.58   -0.26
A336 125.7  25    Sg    8:48:47.83   -1.16
PSZ  143.8  57    Sn    8:48:52.61   -0.87
```

928.

```
 2019-10-15  time:  9:41:32.60 UTC  ML= 0.8
   lat: 47.231N  lon: 18.247E  h=  0.0 km
                 erh= 2.9km    erz= 372km
   nr=  6        gap=249       rms=0.23
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  14.7   4    Pg    9:41:35.06   -0.16
                  Sg      41:37.08   -0.19
PKST  16.4 281    Pg    9:41:35.77    0.24
                  Sg      41:37.58   -0.23
PKSG  20.9  31    Pg    9:41:36.27   -0.06
                  Sg      41:39.75    0.51
```

929.

```
 2019-10-15  time:  9:42:26.07 UTC  ML= 1.4
   lat: 47.973N  lon: 20.049E  h=  0.0 km
                 erh= 3.4km    erz= 713km
   nr=  5        gap=174       rms=0.32
   Locality: Mátraballa
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   13.1 242    Pg    9:42:28.57    0.17
                  Sg      42:30.14   -0.08
```

```
KECS  65.3  30    Sg    9:42:47.36    0.53
A336  83.4 290    Sg    9:42:52.24   -0.34
ABAH  95.6  68    Sg    9:42:56.02   -0.43
```

930.

```
 2019-10-15  time:  9:45:58.66 UTC  ML= 1.3
   lat: 48.370N  lon: 19.820E  h=  0.0 km
                 erh= ---km    erz= ---km
   nr=  4        gap=180       rms=0.14
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   50.5 174    Pg    9:46:07.85    0.18
                  Sg      46:14.47   -0.23
KECS  50.9  76    Pg    9:46:07.70   -0.04
A336  62.8 256    Sg    9:46:18.55   -0.05
```

931.

```
 2019-10-16  time:  7:05:52.42 UTC  ML= 1.5
   lat: 47.341N  lon: 18.434E  h=  0.0 km
                 erh= 2.3km    erz= 545km
   nr=  8        gap=203       rms=0.40
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   6.5 330    PgU   7:05:53.59    0.02
                  Sg      05:53.84   -0.64
CSKK  13.3 280    Pg    7:05:55.09    0.30
                  Sg      05:56.64    0.00
PKST  31.5 253    Pg    7:05:58.59    0.54
                  Sg      06:02.12   -0.33
MORH 126.2 173    Sg    7:06:32.31   -0.21
PKSM 126.6 173    Sg    7:06:31.89   -0.76
```

932.

```
 2019-10-16  time:  8:25:16.80 UTC  ML= 1.8
   lat: 47.307N  lon: 18.450E  h=  0.0 km
                 erh= 2.4km    erz= 561km
   nr=  7        gap=199       rms=0.39
   Locality: Pátka
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  10.4 334    Pg    8:25:18.84    0.17
                  Sg      25:19.64   -0.48
CSKK  15.6 293    Pg    8:25:20.09    0.49
                  Sg      25:21.49   -0.29
PKST  31.9 260    Sg    8:25:26.50   -0.45
MORH 122.2 173    Sg    8:25:55.97    0.31
PKSM 122.6 173    Sg    8:25:55.35   -0.44
```

933.

```
 2019-10-16  time:  8:37:36.19 UTC  ML= 1.5
   lat: 46.136N  lon: 18.044E  h=  0.0 km
                 erh= 0.7km    erz= 107km
   nr=  7        gap=265       rms=0.07
   Locality: Hetvehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   6.8 141    Pg    8:37:37.30   -0.10
                  Sg      37:38.41    0.06
PKSM  46.9  80    Pg    8:37:44.66    0.10
                  Sg      37:51.01   -0.08
MORH  47.2  79    Pg    8:37:44.66    0.04
                  Sg      37:51.16   -0.03
PKB5  73.7  46    Pg    8:37:49.35   -0.01
```

934.

```
 2019-10-16  time:  8:53:04.65 UTC  ML= 1.0
   lat: 45.914N  lon: 18.347E  h=  0.0 km
                 erh= 2.1km    erz= 419km
   nr=  8        gap=215       rms=0.31
   Locality: Vokány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSV   7.8 249    Pg    8:53:05.98   -0.06
                  Sg      53:06.80   -0.34
KOVH  27.2 315    Pg    8:53:10.19    0.68
                  Sg      53:13.02   -0.29
PKSM  40.2  35    PgU   8:53:11.69   -0.14
                  Sg      53:17.66    0.22
MORH  40.7  34    PgU   8:53:11.72   -0.20
                  Sg      53:17.74    0.15
```

935.

```
 2019-10-16  time:  9:01:46.66 UTC  ML= 1.3
   lat: 48.548N  lon: 20.745E  h=  0.0 km
                 erh= 1.8km    erz= 475km
   nr=  7        gap=107       rms=0.31
   Locality: Komjáti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  20.5 249    Pg    9:01:50.17   -0.15
                  Sg      01:53.09   -0.08
ABAH  46.1 127    Pg    9:01:54.95    0.06
                  Sg      02:01.40    0.09
PSZ   94.3 222    Pg    9:02:03.57    0.07
NIE  101.9 342    Pg    9:02:05.28    0.43
STHS 103.2  21   ePg    9:02:04.30   -0.79
```

936.

```
 2019-10-16  time:  9:59:49.70 UTC  ML= 1.7
   lat: 46.977N  lon: 22.318E  h=  0.0 km
                 erh= 2.2km    erz= 2.5km
   nr= 22        gap= 99       rms=0.86
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DRGR  36.4 125    Pg    9:59:56.70    0.50
                  Sg   10:00:01.54    0.28
BORR  42.4 287    PgC   9:59:58.17    0.90
                  Sg   10:00:04.70    1.53
MARR  69.7 119    PgD   9:60:02.55    0.41
                  Sg      60:11.10   -0.75
SIRR  93.6 213    PgD   9:60:07.04    0.62
                  Sg      60:18.20   -1.26
CJR  102.0 107    PgC   9:60:08.50    0.59
                  Sg      60:21.60   -0.51
TRPA 129.3   7    Pg    9:60:11.83   -0.96
                  Sg      60:26.51   -4.29*
SURR 136.8 186    PnC   9:60:13.89    0.10
                  Sn      60:30.60   -1.97
BZS  160.6 200    Pn    9:60:16.74   -0.02
                  Sn      60:36.93   -0.93
GZR  179.6 169    PnD   9:60:19.95    0.83
                  Sn      60:41.70   -0.37
LOT  203.6 147    PnC   9:60:23.43    1.31
                  Sn      60:47.20   -0.20
PSZ  210.6 300    Pn    9:60:21.78   -1.22
                  Sn      60:47.95   -1.02
```

937.

```
 2019-10-16  time: 10:43:08.98 UTC  ML= 1.0
   lat: 47.049N  lon: 18.354E  h=  0.0 km
                 erh= 7.7km    erz= ***km
   nr=  9        gap=162       rms=1.28
   Locality: Tác
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  33.7 314    Pg   10:43:16.53    1.53
                  Sg      43:19.59   -0.10
CSKK  35.7 349    Pg   10:43:15.19   -0.16
                  Sg      43:17.23   -3.09
PKSG  38.3   4    Pg   10:43:16.98    1.17
                  Sg      43:20.27   -0.87
MORH  95.2 166    Sg   10:43:39.56    0.32
PKSM  95.6 167    Sg   10:43:39.12   -0.24
KOVH 108.5 190    Sg   10:43:41.27   -2.20
```

938.

```
 2019-10-17  time:  8:36:42.37 UTC  ML= 1.3
   lat: 46.178N  lon: 18.292E  h=  0.0 km
                 erh= 1.3km    erz= 237km
   nr=  7        gap=205       rms=0.16
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.8 236    Pg    8:36:45.56    0.00
                  Sg      36:47.97   -0.08
PKSM  27.2  82    Pg    8:36:47.42    0.18
                  Sg      36:51.25    0.21
MORH  27.5  81    Pg    8:36:47.17   -0.12
                  Sg      36:50.77   -0.36
PKSV  32.3 185    Sg    8:36:52.66    0.03
```

939.

```
 2019-10-17  time: 22:17:03.62 UTC  ML= 0.8
   lat: 47.452N  lon: 18.350E  h=  7.1 km
                 erh= 1.5km    erz= 1.0km
   nr= 10        gap=160       rms=0.30
   Locality: Oroszlány
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSG   7.4 156    PgD  22:17:05.34   -0.12
                  Sg      17:06.80   -0.09
CSKK  12.0 214    PgD  22:17:06.01   -0.11
                  Sg      17:08.06    0.00
PKST  32.1 228    Pg   22:17:09.47   -0.03
                  Sg      17:14.14    0.06
SRO   40.2 356    Sg   22:17:16.67    0.07
MORH 139.3 171    Sn   22:17:44.67   -0.76
PKSM 139.7 171    Pn   22:17:28.02    0.86
                  Sn      17:45.56    0.04
```

940.

```
 2019-10-18  time:  8:43:18.36 UTC  ML= 1.7
   lat: 48.577N  lon: 20.768E  h=  0.0 km
                 erh= 1.4km    erz= 373km
   nr=  6        gap=137       rms=0.23
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.4 243    Pg    8:43:22.77    0.24
                  Sg      43:25.35   -0.43
ABAH  46.8 132    Pg    8:43:26.94    0.22
                  Sg      43:33.17   -0.07
PSZ   97.9 222    Sg    8:43:49.22   -0.25
STHS  99.6  20    Pg    8:43:36.05   -0.10
```

941.

```
 2019-10-18  time:  9:16:52.86 UTC  ML= 0.8
   lat: 47.244N  lon: 18.245E  h=  0.0 km
                 erh= 1.8km    erz= 223km
   nr=  6        gap=242       rms=0.14
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  13.3   5    Pg    9:16:55.27    0.03
                  Sg      16:56.84   -0.25
PKST  16.1 276    Pg    9:16:55.83    0.10
                  Sg      16:57.85   -0.11
PKSG  19.8  34    Pg    9:16:56.31   -0.08
                  Sg      16:59.45    0.30
```

942.

```
 2019-10-18  time:  9:59:43.10 UTC  ML= 1.6
   lat: 47.534N  lon: 18.530E  h=  0.0 km
                 erh= 2.6km    erz= 186km
   nr=  8        gap=189       rms=0.13
   Locality: Nagyegyháza
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  19.0 214    Pg    9:59:46.51    0.01
                  Sg      59:49.17    0.03
CSKK  27.8 227    PgU   9:59:48.12    0.05
                  Sg      59:51.80   -0.15
PKST  48.3 231    Pg    9:59:51.90    0.17
                  Sg      59:57.92   -0.55
A336  85.3  24    Pg    9:59:58.21   -0.12
                  Sg   10:00:10.28    0.08
```

943.

```
 2019-10-21  time:  8:49:12.96 UTC  ML= 1.5
   lat: 47.734N  lon: 18.965E  h=  0.0 km
                 erh= 4.9km    erz= ***km
   nr=  7        gap=192       rms=0.75
   Locality: Pilisszentlászló
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  24.6  75    PgU   8:49:18.04    0.70
                  Sg      49:20.33   -0.44
BUD   28.2 171    Sg    8:49:21.36   -0.56
A336  55.5   3    Pg    8:49:23.46    0.58
                  Sg      49:29.43   -1.18
PSZ   72.6  74    Pg    8:49:26.29    0.37
                  Sg      49:34.55   -1.47
```

944.

```
 2019-10-21  time:  8:52:03.64 UTC  ML= 1.8
   lat: 48.567N  lon: 20.763E  h=  0.0 km
                 erh= 6.4km    erz= 795km
   nr=  5        gap=245       rms=0.36
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.5 246    Pg    8:52:07.68    0.02
                  Sg      52:10.20   -0.59
ABAH  46.3 130    Pg    8:52:12.23    0.31
                  Sg      52:17.86   -0.51
PSZ   96.7 222    Sg    8:52:34.74    0.35
```

945.

```
 2019-10-21  time:  9:13:22.93 UTC  ML= 1.3
   lat: 46.157N  lon: 18.302E  h=  0.0 km
                 erh= 1.2km    erz= 233km
   nr=  7        gap=192       rms=0.16
   Locality: Vasas
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.4 244    Pg    9:13:25.79   -0.25
                  Sg      13:28.63    0.16
PKSM  26.9  77    Pg    9:13:27.88    0.15
                  Sg      13:31.21   -0.26
MORH  27.2  76    Pg    9:13:27.84    0.06
PKSV  30.1 187    Pg    9:13:28.33    0.02
                  Sg      13:32.58    0.08
```

946.

```
 2019-10-21  time:  9:14:10.96 UTC  ML= 1.1
   lat: 46.111N  lon: 18.062E  h=  0.0 km
                 erh= 3.7km    erz= 495km
   nr=  7        gap=286       rms=0.32
   Locality: Bakonya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   3.9 131    Pg    9:14:11.22   -0.43
                  Sg      14:12.30    0.11
PKSV  28.8 149    Sg    9:14:20.43    0.31
PKSM  46.1  76    Pg    9:14:19.14   -0.06
                  Sg      14:25.27   -0.35
MORH  46.4  75    Pg    9:14:19.74    0.49
                  Sg      14:25.68   -0.04
```

947.

```
 2019-10-22  time:  7:48:41.18 UTC  ML= 1.2
   lat: 45.862N  lon: 18.404E  h=  0.0 km
                 erh= 2.0km    erz= 305km
   nr=  8        gap=258       rms=0.22
   Locality: Nagyharsány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSV  12.2 284    Pg    7:48:43.26   -0.09
                  Sg      48:44.02   -1.03
KOVH  34.4 317    Pg    7:48:47.60    0.26
                  Sg      48:52.06   -0.07
PKSM  43.0  25    PgU   7:48:48.94    0.09
                  Sg      48:54.93    0.09
MORH  43.4  25    Pg    7:48:48.97    0.03
                  Sg      48:54.67   -0.32
```

948.

```
 2019-10-22  time:  9:04:00.12 UTC  ML= 1.6
   lat: 47.985N  lon: 20.412E  h=  0.0 km
                 erh= 4.8km    erz= 894km
   nr=  6        gap=199       rms=0.53
   Locality: Felsőtárkány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   39.4 259    Pg    9:04:07.30    0.15
                  Sg      04:11.79   -0.84
KECS  55.7   6    Pg    9:04:10.18    0.11
                  Sg      04:17.73   -0.10
ABAH  70.6  61    Pg    9:04:13.36    0.63
                  Sg      04:21.51   -1.06
```

949.

```
 2019-10-22  time:  9:47:51.87 UTC  ML= 2.2
   lat: 48.211N  lon: 21.231E  h=  0.0 km
                 erh= 2.3km    erz= 601km
   nr=  7        gap=157       rms=0.40
   Locality: Rátka
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   9.5   4    Pg    9:47:53.59    0.02
                  Sg      47:54.85   -0.04
KECS  63.0 299    Pg    9:48:03.50    0.38
                  Sg      48:11.47   -0.43
TRPA  97.7  95    Pg    9:48:09.72    0.40
                  Sg      48:22.10   -0.83
PSZ  104.8 252    Sg    9:48:24.70   -0.49
```

950.

```
 2019-10-22  time: 10:04:19.88 UTC  ML= 1.2
   lat: 47.102N  lon: 17.963E  h=  0.0 km
                 erh= 2.7km    erz= 364km
   nr=  7        gap=225       rms=0.24
   Locality: Kádárta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  18.3  17    Pg   10:04:23.03   -0.12
                  Sg      04:25.50   -0.19
CSKK  36.8  38    Sg   10:04:31.98    0.41
PKSG  45.7  45    Pg   10:04:28.07    0.03
                  Sg      04:34.25   -0.16
PKSM 111.8 152    Pg   10:04:40.12    0.28
                  Sg      04:54.96   -0.45
```

951.

```
 2019-10-23  time:  4:34:42.12 UTC  ML= 1.6
   lat: 48.167N  lon: 19.052E  h= 11.3 km
                 erh= 1.9km    erz= 1.5km
   nr= 14        gap=100       rms=0.53
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
A336   8.3 332    PgU   4:34:44.75    0.12
                  Sg      34:45.96   -0.62
PENC  45.3 158    Sg    4:34:57.08    0.13
A338  54.8 252    Pg    4:34:52.40    0.29
                  Sg      34:59.52   -0.38
SRO   67.7 234    Pg    4:34:54.53    0.14
                  Sg      35:03.41   -0.54
PSZ   68.7 114    Pg    4:34:55.12    0.57
                  Sg      35:03.56   -0.68
PKSG  99.4 210    P*    4:35:00.09    0.15
CSKK 107.3 214    Sn    4:35:15.49   -0.41
KECS 112.0  72    Sn    4:35:15.76   -1.17
MODS 133.7 280   ePn    4:35:06.10    1.71
                 eSn      35:21.40   -0.36
```

952.

```
 2019-10-23  time:  9:50:11.67 UTC  ML= 1.7
   lat: 48.582N  lon: 20.767E  h=  0.0 km
                 erh= 1.4km    erz= 390km
   nr=  8        gap=152       rms=0.28
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.5 242    Pg    9:50:15.98    0.11
                  Sg      50:18.92   -0.22
ABAH  47.3 132    Pg    9:50:20.18    0.07
```

```
                  Sg      50:26.30   -0.39
PSZ   98.2 221    Pg    9:50:29.49    0.28
                  Sg      50:42.66   -0.22
NIE   98.8 340    Pg    9:50:29.65    0.33
LANS 114.4 304    Pg    9:50:31.65   -0.44
```

953.

```
 2019-10-24  time:  8:25:30.90 UTC  ML= 1.8
   lat: 47.676N  lon: 18.519E  h=  0.0 km
                 erh= 1.6km    erz= 5.1km
   nr= 24        gap= 75       rms=0.84
   Locality: Héreg
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
HU09  11.1 248    Pg    8:25:33.16    0.27
                  Sg      25:35.70    1.27
SRO   21.7 315    Pg    8:25:34.72   -0.06
                  Sg      25:38.21    0.40
PKSG  33.0 197    Pg    8:25:37.06    0.26
                  Sg      25:42.95    1.55
CSKK  39.9 209    Pg    8:25:38.18    0.16
                  Sg      25:42.29   -1.28
HU10  41.9  63    Pg    8:25:38.05   -0.33
                  Sg      25:44.58    0.36
BUD   43.6 119    Sg    8:25:43.30   -1.45
PENC  58.6  77    Pg    8:25:42.34    0.98
                  Sg      25:50.25    0.73
PKST  59.0 218    Pg    8:25:42.02    0.58
                  Sg      25:48.81   -0.86
A336  71.6  30    Sg    8:25:52.74   -0.91
PSZ  106.5  75    Pg    8:25:50.52    0.60
                  Sg      26:04.58   -0.17
ZST  120.6 299    Sg    8:26:07.68   -1.57
MODS 120.8 310   ePg    8:25:52.00   -0.48
                 eSg      26:06.60   -2.71
MORH 162.6 177    Pn    8:25:57.55   -0.66
                  Sn      26:16.36   -3.15
PKSM 163.0 177    Sn    8:26:16.25   -3.36
```

954.

```
 2019-10-24  time: 14:30:42.12 UTC  ML= 1.9
   lat: 47.137N  lon: 19.305E  h=  0.0 km
                 erh= 5.7km    erz= 961km
   nr= 10        gap=158       rms=0.75
   Locality: Örkény
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKS7  14.8 228    Pg   14:30:44.80    0.03
                  Sg      30:46.40   -0.43
PKB2  51.6 185    Pg   14:30:52.46    1.12
PENC  72.7 359    Pg   14:30:56.25    1.14
                  Sg      31:04.89   -0.34
PKB5  74.3 216    Pg   14:30:55.96    0.58
PSZ   97.6  27    Pg   14:30:59.05   -0.50
                  Sg      31:12.32   -0.82
MORH 114.2 206    Pg   14:31:01.70   -0.81
PKSM 114.7 206    Pg   14:31:01.85   -0.75
```

955.

```
 2019-10-25  time:  9:07:46.98 UTC  ML= 1.5
   lat: 47.415N  lon: 18.712E  h=  0.0 km
                 erh= 5.2km    erz= 5.4km
   nr= 15        gap=110       rms=1.36
   Locality: Pusztazámor
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  24.4 264    Pg    9:07:51.74    0.41
BUD   24.7  72    Pg    9:07:51.02   -0.37
                  Sg      07:54.75   -0.08
CSKK  34.6 260    Pg    9:07:53.64    0.49
                  Sg      07:58.40    0.43
PKST  54.1 251    Pg    9:07:56.94    0.31
                  Sg      08:05.49    1.32
PENC  59.8  46    Sg    9:08:06.44    0.45
A336  93.5  13    Sg    9:08:13.30   -3.39
PSZ  105.0  58    Pg    9:08:06.36    0.64
                  Sg      08:19.28   -1.06
PKSM 133.9 182    Sn    9:08:25.52   -3.69
MODS 151.2 315   eSn    9:08:30.50   -2.56
KECS 177.9  48   ePn    9:08:17.80    1.60
                 eSn      08:43.10    4.11
```

956.

```
 2019-10-25  time:  9:36:38.22 UTC  ML= 0.8
   lat: 47.222N  lon: 18.286E  h=  0.0 km
                 erh= 2.7km    erz= 728km
   nr=  7        gap=143       rms=0.49
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  15.8 353    Pg    9:36:40.39   -0.64
                  Sg      36:42.78   -0.45
PKST  19.5 282    Pg    9:36:41.91    0.21
                  Sg      36:44.71    0.30
PKSG  20.4  23    Pg    9:36:42.37    0.50
                  Sg      36:45.27    0.56
MORH 115.2 166    Sg    9:37:14.18   -0.66
```

957.

```
 2019-10-26  time:  2:08:59.09 UTC  ML= 2.4
   lat: 47.797N  lon: 16.165E  h=  3.8 km
                 erh= 1.7km    erz= 1.9km
   nr= 30        gap= 56       rms=0.75
   Locality: Austria
   Comments:

sta   dist azm  phase  hr mn  sec     res
RONA  14.6 138    Pg    2:09:02.23    0.44
                  Sg      09:04.28    0.39
CONA  27.0 303    Pg    2:09:04.37    0.40
                  Sg      09:08.05    0.27
SOP   32.0 113    Pg    2:09:05.13    0.27
                  Sg      09:08.88   -0.47
ARSA  77.6 219    Pg    2:09:12.06   -0.91
                  Sg      09:21.56   -2.23
ZST   82.9  58    Pg    2:09:13.82   -0.09
MODS 104.8  52   ePg    2:09:17.50   -0.32
                 eSg      09:31.60   -0.83
KRUC 141.7   7    Pn    2:09:22.76   -0.55
MOA  142.4 272    Pn    2:09:23.59    0.21
                  Sn      09:40.90   -1.43
KOGS 150.0 178    Pn    2:09:25.27    0.93
SOKA 151.1 215    Pn    2:09:23.87   -0.60
                  Sn      09:40.52   -3.74*
PERS 151.5 212    Pn    2:09:24.55    0.02
GROS 156.8 199    Pn    2:09:25.58    0.40
VRAC 171.1  11    Pn    2:09:26.38   -0.59
TREC 174.0 343   ePn    2:09:27.70    0.37
                 eSn      09:48.50   -0.85
OBKA 188.5 221    Pn    2:09:29.44    0.31
BIOA 189.9 266    Pn    2:09:30.94    1.63
                  Sn      09:53.55    0.67
KBA  227.3 249    Pn    2:09:37.24    3.27
                  Sn      10:02.23    1.05
ZVC  233.5 321   ePn    2:09:35.50    0.75
                 eSn      10:03.00    0.44
KHC  242.1 308   eSn    2:10:06.70    2.22
PRU  271.3 334   eSn    2:10:14.90    3.95*
```

958.

```
 2019-10-26  time:  7:06:15.87 UTC  ML= 2.0
   lat: 48.402N  lon: 18.653E  h=  0.0 km
                 erh= 2.8km    erz= 3.8km
   nr= 21        gap=118       rms=1.26
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A336  31.7 126    Pg    7:06:23.10    1.56
                  Sg      06:26.36    0.40
A338  48.4 208    Sg    7:06:32.18    0.91
A337  66.4 255    Sg    7:06:37.88    0.91
PENC  82.5 145    Sg    7:06:42.13    0.04
SMOL  91.5 278   eSg    7:06:41.60   -3.34
MODS 102.0 268   ePg    7:06:35.10    1.02
                 eSg      06:46.70   -1.59
LANS 102.6  36    Sg    7:06:47.65   -0.82
PSZ  106.8 120    Pg    7:06:35.72    0.77
                  Sg      06:47.83   -2.00
PKSG 114.0 190    Sg    7:06:51.41   -0.69
ZST  117.3 259   eSg    7:06:51.80   -1.36
CSKK 119.1 194    Pg    7:06:37.42    0.27
                  Sg      06:53.20   -0.54
PKST 135.2 200    Sn    7:06:56.91   -1.49
KECS 135.9  86    Sn    7:06:56.89   -1.66
RONA 192.3 246    Pn    7:06:49.37    2.49
                  Sn      07:11.94    0.87
CONA 214.2 256    Pn    7:06:49.31   -0.31
                  Sn      07:14.60   -1.34
```

959.

```
 2019-10-27  time:  1:57:54.60 UTC  ML= 1.2
   lat: 45.764N  lon: 18.021E  h= 10.0 km
                 erh= 3.5km    erz= 1.8km
   nr= 16        gap=158       rms=0.65
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  22.7  52    PgD   1:57:59.54    0.51
                  Sg      58:03.15    0.67
KOVH  36.6  10    PgD   1:58:01.23   -0.14
                  Sg      58:06.06   -0.59
PKSM  69.2  44    Pg    1:58:06.99   -0.10
                  Sg      58:16.13   -0.70
MORH  69.7  44    Pg    1:58:07.13   -0.04
                  Sg      58:16.10   -0.88
PKB4  93.1  29    Pg    1:58:12.28    0.97
                  Sg      58:21.95   -2.40
PKB5 107.6  31    Pn    1:58:14.38    0.61
                  Sn      58:28.91    0.18
PKB1 128.1  28    Sn    1:58:33.44    0.17
BLY  130.5 210    Sn    1:58:33.06   -0.75
PKB2 138.3  43    Sn    1:58:34.06   -1.47
KOGS 156.6 299    Sn    1:58:39.51   -0.09
```

960.

```
 2019-10-28  time:  8:13:03.72 UTC  ML= 2.0
   lat: 47.359N  lon: 18.406E  h=  0.0 km
                 erh= 2.2km    erz= 4.3km
   nr= 14        gap=103       rms=0.88
   Locality: Gánt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   3.9 343    PgU   8:13:04.72    0.31
                  Sg      13:05.15    0.20
CSKK  11.0 273    Pg    8:13:06.11    0.43
                  Sg      13:07.04   -0.17
PKST  30.2 248    Pg    8:13:09.81    0.70
                  Sg      13:12.94   -0.37
PKB5  88.5 164    Sg    8:13:33.12    1.26
PKB4  97.0 171    Sg    8:13:35.33    0.77
A336 106.9  25    Sg    8:13:37.82    0.11
PSZ  128.0  61    Sg    8:13:43.02   -1.40
MORH 128.3 172    Sg    8:13:42.56   -1.95
PKSM 128.7 172    Sg    8:13:42.46   -2.18
KOVH 143.1 189    Sn    8:13:47.75   -0.26
CONA 201.4 288    Sn    8:13:59.35   -1.58
```

961.

```
 2019-10-28  time: 10:33:20.21 UTC  ML= 1.1
   lat: 47.194N  lon: 18.286E  h=  0.0 km
                 erh= 4.0km    erz= 447km
   nr=  5        gap=271       rms=0.20
   Locality: Sárkeszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  18.9 354    Pg   10:33:23.86    0.28
                  Sg      33:26.12   -0.09
PKST  20.4 291    Pg   10:33:23.67   -0.18
                  Sg      33:26.80    0.11
PKSG  23.3  20    Sg   10:33:27.42   -0.20
```

962.

```
 2019-10-28  time: 12:27:58.35 UTC  ML= 1.4
   lat: 46.117N  lon: 18.075E  h=  0.0 km
                 erh= 1.6km    erz= 278km
   nr= 10        gap=245       rms=0.22
   Locality: Abaliget
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   3.7 149    Pg   12:27:58.85   -0.15
                  Sg      28:00.02    0.50
PKSV  28.8 152    Sg   12:28:07.36   -0.15
PKSM  45.0  76    Pg   12:28:06.25   -0.13
                  Sg      28:12.61   -0.04
MORH  45.3  76    Pg   12:28:06.31   -0.13
                  Sg      28:12.78    0.03
PKB4  58.7  44    Pg   12:28:09.21    0.39
PKB5  73.6  44    Sg   12:28:21.55   -0.18
PKB1  92.4  37    Sg   12:28:27.84    0.11
```

963.

```
 2019-10-29  time:  7:34:51.95 UTC  ML= 1.0
   lat: 47.293N  lon: 18.322E  h=  0.0 km
                 erh= 1.6km    erz= 251km
   nr=  6        gap=235       rms=0.15
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK   9.1 329    Pg    7:34:53.78    0.21
                  Sg      34:54.61   -0.22
PKSG  12.1  25    Pg    7:34:54.10   -0.02
                  Sg      34:55.65   -0.17
PKST  22.1 260    Pg    7:34:55.81   -0.09
                  Sg      34:59.17    0.20
```

964.

```
 2019-10-29  time:  9:30:14.93 UTC  ML= 1.8
   lat: 47.303N  lon: 18.451E  h=  0.0 km
                 erh= 1.8km    erz= 4.0km
   nr= 10        gap=115       rms=0.56
   Locality: Pátka
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  10.9 335    Pg    9:30:16.69   -0.18
```

```
                   Sg      30:17.10   -1.28
CSKK  15.9 295    Pg    9:30:18.23    0.46
                   Sg      30:19.52   -0.46
PKST  31.9 261    Pg    9:30:20.93    0.30
                   Sg      30:24.76   -0.32
MORH 121.8 173    Sg    9:30:53.47   -0.17
PKSM 122.2 173    Sg    9:30:53.13   -0.64
PSZ  128.3  58    Sg    9:30:56.32    0.62
KOVH 137.7 191    Sn    9:30:59.13    1.12
```

965.

```
 2019-10-29  time: 10:08:07.71 UTC  ML= 1.4
   lat: 48.718N  lon: 19.941E  h=  0.0 km
                 erh= 2.3km    erz= 661km
   nr=  7        gap=147       rms=0.45
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  48.0 123    Pg   10:08:16.27    0.00
                   Sg      08:22.77   -0.18
NIE   82.5  19    Sg   10:08:33.27   -0.67
A336  88.1 232    Sg   10:08:35.34   -0.37
PSZ   89.0 182    Pg   10:08:24.36    0.75
                   Sg      08:35.66   -0.35
STHS 122.9  51    Sg   10:08:46.96    0.19
```

966.

```
 2019-10-29  time: 11:12:24.25 UTC  ML= 1.5
   lat: 48.550N  lon: 20.770E  h=  0.0 km
                 erh= 2.4km    erz= 829km
   nr= 10        gap=109       rms=0.65
   Locality: Komjáti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.2 251    Pg   11:12:28.19   -0.03
                   Sg      12:31.58    0.26
ABAH  44.8 129    Pg   11:12:31.99   -0.26
                   Sg      12:39.27    0.78
PSZ   95.7 223    Pg   11:12:41.22   -0.12
                   Sg      12:54.70    0.04
NIE  102.3 341    Pg   11:12:43.11    0.60
                   Sg      12:57.52    0.77
STHS 102.5  20   ePg   11:12:41.00   -1.55
                  eSg      12:54.50   -2.32
```

967.

```
 2019-10-30  time: 10:31:01.49 UTC  ML= 1.9
   lat: 47.714N  lon: 18.522E  h=  0.0 km
                 erh= 1.4km    erz= 576km
   nr= 15        gap= 91       rms=0.50
   Locality: Lábatlan
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
SRO   19.1 305    Pg   10:31:05.14    0.24
                   Sg      31:08.95    1.38
PKSG  37.2 195    Sg   10:31:13.55    0.24
CSKK  43.7 207    Pg   10:31:09.05   -0.25
                   Sg      31:14.77   -0.62
PKST  62.5 216    Pg   10:31:12.69    0.03
                   Sg      31:21.47    0.10
A336  67.8  32    Sg   10:31:22.66   -0.39
EGYH  95.4 250    Pg   10:31:19.14    0.60
                   Sg      31:31.45   -0.38
PSZ  105.3  78    Sg   10:31:34.54   -0.42
PKB1 105.4 169    Pg   10:31:20.64    0.32
MODS 118.2 308   ePg   10:31:22.40   -0.21
                  eSg      31:37.10   -1.98*
ZST  118.8 297   eSg   10:31:38.00   -1.24
```

968.

```
 2019-10-30  time: 12:18:21.13 UTC  ML= 2.5
   lat: 48.234N  lon: 21.243E  h=  0.0 km
                 erh= 3.7km    erz= 2.3km
   nr=  8        gap=253       rms=0.42
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   6.9 358    PgU  12:18:22.31   -0.05
                   Sg      18:22.95   -0.36
KECS  62.6 296    Pg   12:18:32.43    0.13
                   Sg      18:41.09    0.07
PSZ  106.4 251    Sg   12:18:54.60   -0.36
NIE  148.4 333    Sn   12:19:04.07   -2.51
LANS 165.7 308    Sn   12:19:11.14    0.71
A336 166.7 270    Sn   12:19:11.09    0.45
```

969.

```
 2019-10-30  time: 19:49:53.38 UTC  ML= 1.4
   lat: 47.824N  lon: 16.600E  h=  2.0 km
                 erh= 6.6km    erz= 5.4km
   nr=  9        gap=233       rms=0.76
   Locality: Austria
   Comments:

sta   dist azm  phase  hr mn  sec     res
SOP   15.9 191    Pg   19:49:56.86    0.62
                   Sg      49:58.30   -0.18
RONA  26.6 239    Pg   19:49:57.97   -0.18
                   Sg      50:00.42   -1.45
EGYH  71.2 129    Sg   19:50:16.19    0.18
HU08 108.6 114    Sg   19:50:27.58   -0.33
CSKK 135.0 112    Sn   19:50:34.69   -0.71
SOKA 174.1 223    Pn   19:50:22.29    0.42
OBKA 213.4 227    Pn   19:50:29.85    3.08
```

970.

```
 2019-10-31  time:  9:34:13.46 UTC  ML= 1.5
   lat: 47.078N  lon: 17.855E  h=  0.0 km
                 erh= 5.7km    erz= 817km
   nr=  9        gap=224       rms=0.61
   Locality: Nemesvámos
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  24.3  34    PgU   9:34:17.14   -0.66
                   Sg      34:20.43   -0.76
CSKK  44.2  44    Pg    9:34:22.01    0.66
                   Sg      34:27.36   -0.14
PKSG  53.5  49    Sg    9:34:30.65    0.18
KOVH 111.6 170    Sg    9:34:48.42   -0.51
MORH 113.3 148    Sg    9:34:49.08   -0.38
PKSM 113.5 148    Pg    9:34:34.70    0.96
                   Sg      34:49.42   -0.13
```

971.

```
 2019-10-31  time:  9:58:28.82 UTC  ML= 1.6
   lat: 48.181N  lon: 19.840E  h=  0.0 km
                 erh= 2.2km    erz= 651km
   nr=  7        gap=140       rms=0.45
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   29.5 172    Pg    9:58:34.15    0.07
                   Sg      58:38.54    0.35
KECS  58.5  55    Pg    9:58:39.46    0.18
                   Sg      58:47.18   -0.25
A336  62.8 275    Pg    9:58:40.46    0.43
```

```
                  Sg      58:47.80   -0.97
ABAH 104.8  83    Sg    9:59:01.33   -0.80

972.
```

```
 2019-10-31  time: 10:16:58.28 UTC  ML= 1.6
   lat: 47.926N  lon: 19.395E  h=  0.0 km
                 erh= 2.5km    erz= 4.8km
   nr=  9        gap=118       rms=0.72
   Locality: Becske
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  17.3 209    Pg   10:17:01.79    0.43
                  Sg      17:04.26    0.49
PSZ   37.4  91    PgU  10:17:05.42    0.46
                  Sg      17:10.16    0.00
A336  45.1 319    Sg   10:17:12.27   -0.36
BUD   56.5 210    Sg   10:17:15.91   -0.33
PKSG  96.0 232    Sg   10:17:27.23   -1.56
KECS 102.1  53    Sg   10:17:29.35   -1.38
MODS 165.2 288   eSn   10:17:48.30    0.83

973.
```

```
 2019-10-31  time: 10:18:55.84 UTC  ML= 1.0
   lat: 46.149N  lon: 18.294E  h=  0.0 km
                 erh= 1.9km    erz= 480km
   nr=  9        gap=143       rms=0.36
   Locality: Vasas
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  16.5 246    Pg   10:18:58.61   -0.17
                  Sg      19:01.40    0.32
PKSM  27.7  75    Pg   10:19:00.60   -0.18
                  Sg      19:05.30    0.66
MORH  28.0  75    Pg   10:19:00.36   -0.48
                  Sg      19:04.64   -0.10
PKSV  29.1 186    Pg   10:19:00.97   -0.07
                  Sg      19:05.76    0.66
PKB1  80.3  28    Sg   10:19:21.81    0.44

974.
```

```
 2019-11-02  time:  9:34:27.07 UTC  ML= 1.1
   lat: 46.187N  lon: 18.288E  h=  0.0 km
                 erh= 1.0km    erz= 236km
   nr=  9        gap=162       rms=0.18
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  18.2 233    PgU   9:34:30.32   -0.01
                  Sg      34:33.04    0.18
PKSM  27.4  84    Pg    9:34:32.15    0.18
                  Sg      34:35.86    0.07
MORH  27.7  83    Pg    9:34:32.20    0.18
                  Sg      34:35.61   -0.26
PKSV  33.3 185    Pg    9:34:32.91   -0.11
                  Sg      34:37.44   -0.21
PKB4  42.1  35    Sg    9:34:40.12   -0.35

975.
```

```
 2019-11-04  time:  9:15:07.10 UTC  ML= 1.6
   lat: 48.576N  lon: 20.760E  h=  0.0 km
                 erh= 2.0km    erz= 556km
   nr=  8        gap=138       rms=0.40
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.7 243    Pg    9:15:11.18    0.02
                  Sg      15:14.26   -0.06
ABAH  47.2 131    Pg    9:15:15.38   -0.16
                  Sg      15:22.16    0.04
PSZ   97.4 221    Pg    9:15:24.83    0.34
                  Sg      15:36.99   -1.06
STHS 100.0  21   ePg    9:15:25.40    0.45
                 eSg      15:37.80   -1.07

976.
```

```
 2019-11-04  time:  9:48:12.19 UTC  ML= 1.1
   lat: 47.218N  lon: 18.303E  h=  0.0 km
                 erh= 1.8km    erz= 507km
   nr=  9        gap=148       rms=0.38
   Locality: Moha
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.5 349    Pg    9:48:15.19    0.06
                  Sg      48:17.16   -0.26
PKSG  20.5  19    Pg    9:48:15.77   -0.07
PKST  20.9 283    PgU   9:48:15.88   -0.03
                  Sg      48:18.78   -0.03
MORH 114.4 167    Pg    9:48:33.12    0.51
                  Sg      48:47.73   -0.82
PKSM 114.8 167    Pg    9:48:33.05    0.37
                  Sg      48:47.69   -0.98

977.
```

```
 2019-11-05  time:  5:12:41.43 UTC  ML= 1.2
   lat: 48.095N  lon: 20.431E  h=  2.8 km
                 erh= 8.0km    erz=26.5km
   nr=  8        gap=128       rms=0.63
   Locality: Szilvásvárad
   Comments:

sta   dist azm  phase  hr mn  sec     res
HU02   7.7  66    Pg    5:12:43.28    0.40
                  Sg      12:43.72   -0.30
KECS  43.4   5    Pg    5:12:49.60    0.41
                  Sg      12:53.67   -1.58
PSZ   44.5 244    Pg    5:12:49.83    0.43
JOS   45.3  10    Pg    5:12:49.80    0.26
                  Sg      12:55.32   -0.55
HU23  52.8 195    Sg    5:12:56.97   -1.26

978.
```

```
 2019-11-05  time: 10:38:14.77 UTC  ML= 1.7
   lat: 48.350N  lon: 19.865E  h=  0.0 km
                 erh= 2.1km    erz= 742km
   nr=  9        gap=105       rms=0.55
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   48.0 177    Pg   10:38:23.53    0.19
                  Sg      38:29.93   -0.10
KECS  48.2  72    Pg   10:38:23.60    0.21
                  Sg      38:29.57   -0.54
A336  65.6 259    Pg   10:38:27.22    0.74
                  Sg      38:35.19   -0.43
PENC  75.9 215    Sg   10:38:37.87   -1.02
LANS  93.7 342    Pg   10:38:31.83    0.32
                  Sg      38:43.40   -1.16
```

979.

```
 2019-11-06  time:  9:26:28.54 UTC  ML= 1.6
   lat: 48.588N  lon: 20.747E  h=  0.0 km
                 erh= 1.5km    erz= 500km
   nr=  9        gap=151       rms=0.38
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.6 239    Pg    9:26:32.74    0.16
                  Sg      26:36.50    0.77
ABAH  48.8 132    Pg    9:26:37.31    0.05
                  Sg      26:43.98   -0.08
NIE   97.7 341    Pg    9:26:46.20    0.22
                  Sg      26:59.71    0.12
PSZ   97.8 220    Sg    9:26:59.55   -0.08
LANS 112.8 304    Pg    9:26:48.17   -0.51
                  Sg      27:03.23   -1.17
```

980.

```
 2019-11-06  time: 11:02:07.63 UTC  ML= 1.0
   lat: 46.129N  lon: 18.077E  h=  0.0 km
                 erh= 3.0km    erz= 383km
   nr=  6        gap=279       rms=0.25
   Locality: Abaliget
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   4.9 159    PgU  11:02:08.49    0.00
                  Sg      02:09.52    0.35
PKSV  30.0 153    Sg   11:02:16.62   -0.54
PKSM  44.5  78    Pg   11:02:15.80    0.22
                  Sg      02:21.67   -0.11
MORH  44.8  78    Sg   11:02:21.65   -0.23
```

981.

```
 2019-11-07  time: 10:47:41.12 UTC  ML= 0.6
   lat: 47.213N  lon: 18.265E  h=  0.0 km
                 erh= 2.3km    erz= 292km
   nr=  6        gap=261       rms=0.18
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.7 359    Pg   10:47:44.09   -0.01
                  Sg      47:46.08   -0.34
PKST  18.2 286    Pg   10:47:44.22   -0.15
                  Sg      47:47.18    0.27
PKSG  22.0  26    Pg   10:47:45.24    0.19
                  Sg      47:48.10   -0.01
```

982.

```
 2019-11-07  time: 11:12:13.29 UTC  ML= 1.6
   lat: 46.807N  lon: 17.302E  h=  0.0 km
                 erh= 2.6km    erz= 812km
   nr= 13        gap=164       rms=0.69
   Locality: Keszthely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  75.0  48    Pg   11:12:26.22   -0.45
                  Sg      12:36.68   -0.43
KOGS  89.9 244    Sg   11:12:41.18   -0.69
CSKK  95.5  50    Pg   11:12:31.15    0.81
                  Sg      12:44.61    0.98
KOVH 100.7 143    Pg   11:12:31.66    0.40
                  Sg      12:44.75   -0.54
PKSG 105.1  52    Pg   11:12:32.00   -0.06
                  Sg      12:46.13   -0.57
MORH 122.2 123    Pg   11:12:35.49    0.39
                  Sg      12:50.77   -1.34
PKSM 122.2 123    Pg   11:12:35.79    0.68
                  Sg      12:50.22   -1.91
```

983.

```
 2019-11-07  time: 13:36:40.20 UTC  ML= 1.4
   lat: 48.480N  lon: 20.777E  h=  0.0 km
                 erh= 1.9km    erz= 7.1km
   nr=  9        gap=173       rms=0.45
   Locality: Martonyi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  21.6 271    Pg   13:36:43.85   -0.20
                  Sg      36:46.90   -0.15
ABAH  39.9 121    Pg   13:36:47.59    0.27
                  Sg      36:52.10   -0.78
PSZ   90.6 226    Pg   13:36:56.93    0.55
                  Sg      37:09.08    0.09
LANS 121.7 308    Pg   13:37:02.13    0.20
                  Sg      37:18.37   -0.51
A336 134.6 258    Sn   13:37:20.41   -2.19
```

984.

```
 2019-11-08  time:  9:09:44.27 UTC  ML= 1.7
   lat: 48.568N  lon: 20.743E  h=  0.0 km
                 erh= 4.6km    erz= ***km
   nr=  9        gap=108       rms=1.14
   Locality: Komjáti
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  21.2 244    Pg    9:09:48.37    0.31
                  Sg      09:51.12    0.11
ABAH  47.6 129    Sg    9:09:59.01   -0.38
PSZ   95.8 221    Sg    9:10:14.59   -0.14
NIE   99.7 342    Pg    9:10:04.42    2.34
                  Sg      10:14.13   -1.85
STHS 101.3  21   ePg    9:10:01.90   -0.46
LANS 113.8 305   ePg    9:10:04.00   -0.60
                 eSg      10:18.80   -1.65
```

985.

```
 2019-11-08  time:  9:47:16.41 UTC  ML= 1.0
   lat: 47.213N  lon: 18.281E  h=  0.0 km
                 erh= 1.0km    erz= 269km
   nr=  8        gap=143       rms=0.20
   Locality: Iszkaszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
CSKK  16.8 355    Pg    9:47:19.23   -0.18
                  Sg      47:21.76    0.01
PKST  19.3 285    PgU   9:47:19.84   -0.02
                  Sg      47:22.83    0.28
PKSG  21.6  23    Pg    9:47:20.22   -0.04
                  Sg      47:23.38    0.11
PKSM 114.6 166    Pg    9:47:37.00    0.12
                  Sg      47:51.10   -1.74
```

986.

```
 2019-11-08  time:  9:57:24.51 UTC  ML= 2.3
   lat: 48.178N  lon: 21.133E  h=  0.0 km
                 erh= 2.8km    erz= 706km
   nr=  6        gap=160       rms=0.41
   Locality: Legyesbénye
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  15.3  31    PgU   9:57:27.73    0.49
```

```
                  Sg      57:28.77   -0.60
KECS  58.8 305    Sg    9:57:43.13   -0.06
PSZ   96.8 253    Sg    9:57:54.98   -0.28
TRPA 104.8  93    Pg    9:57:43.46    0.24
                  Sg      57:57.25   -0.56
```

987.

```
 2019-11-08  time: 12:01:38.25 UTC  ML= 1.4
   lat: 47.523N  lon: 18.419E  h=  0.0 km
                 erh= 3.1km    erz= 462km
   nr=  7        gap=202       rms=0.31
   Locality: Vértessomló
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  14.7 188    Pg   12:01:40.91    0.03
                  Sg      01:43.51    0.57
CSKK  21.4 214    Pg   12:01:42.03   -0.04
                  Sg      01:45.04   -0.01
SRO   33.2 346   eSg   12:01:49.20    0.39
PKST  41.3 225    Pg   12:01:45.09   -0.53
                  Sg      01:51.50    0.13
```

988.

```
 2019-11-09  time:  0:57:01.25 UTC  ML=-0.2
   lat: 47.240N  lon: 18.109E  h= 13.0 km
                 erh=13.1km    erz= 6.0km
   nr=  5        gap=239       rms=0.10
   Locality: Várpalota
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKST   6.0 291    Pg    0:57:03.88    0.07
                  Sg      57:05.61   -0.20
CSKK  17.9  40    Sg    0:57:08.27   -0.01
PKSG  27.2  52    Pg    0:57:06.58   -0.06
                  Sg      57:11.00    0.17
```

989.

```
 2019-11-10  time:  8:31:28.61 UTC  ML= 2.5
   lat: 45.701N  lon: 18.841E  h=  4.4 km
                 erh= 1.7km    erz= 2.0km
   nr= 35        gap=101       rms=0.69
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  50.3 295    Pg    8:31:38.19    0.56
PKSM  58.9 345    Pg    8:31:39.58    0.42
                  Sg      31:47.03   -0.35
MORH  59.2 345    Pg    8:31:39.64    0.42
                  Sg      31:47.10   -0.40
KOVH  71.8 307    Pg    8:31:41.91    0.44
                  Sg      31:50.69   -0.80
HU22  72.4  18    Pg    8:31:42.25    0.68
PKB3  84.9  19    Pg    8:31:44.62    0.82
                  Sg      31:55.32   -0.32
PKB4  90.3 348    Pg    8:31:45.06    0.30
                  Sg      31:57.29   -0.06
HU21  97.8  45    Pg    8:31:45.92   -0.18
                  Sg      31:57.99   -1.75
FRGS  98.5 130    Pg    8:31:45.44   -0.79
PKB5  99.7 355    Pg    8:31:46.86    0.42
                  Sg      32:00.04   -0.31
PKS9 107.6 336    Pg    8:31:48.05    0.20
                  Sg      32:02.07   -0.79
PKB2 112.6  16    Pg    8:31:47.10   -1.63
                  Sg      32:03.92   -0.50
A265 114.1 315    Pg    8:31:48.81   -0.19
A263 157.5 312    Pn    8:31:54.01   -0.71
BLY  167.7 231    Pn    8:31:56.32    0.32
                  Sn      32:15.97   -1.39
BEHE 181.2 298    Pn    8:31:57.17   -0.51
CSKK 190.1 346    Pn    8:31:59.95    1.16
                  Sn      32:21.87   -0.45
PKSG 191.1 350    Sn    8:32:23.99    1.44
BZS  216.6  92    Sn    8:32:29.09    0.89
SIRR 227.3  74    PnC   8:32:05.92    2.49
                  Sn      32:32.10    1.51
SURR 255.7  89    Sn    8:32:37.40    0.51
GROS 271.7 288    Sn    8:32:38.10   -2.35*
RONA 295.4 319    Pn    8:32:11.66   -0.26
GZR  309.3  96    PnC   8:32:16.15    2.50*
MODS 320.0 338   ePn    8:32:14.90   -0.09*
DRGR 322.2  68    PnD   8:32:15.10   -0.16*
```

990.

```
 2019-11-11  time:  8:48:44.70 UTC  ML= 1.4
   lat: 47.329N  lon: 18.426E  h=  0.0 km
                 erh= 1.3km    erz= 428km
   nr=  9        gap=113       rms=0.32
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   7.5 339    PgU   8:48:46.04   -0.01
                  Sg      48:46.58   -0.51
CSKK  13.1 287    Pg    8:48:47.34    0.30
                  Sg      48:49.42    0.56
PKST  30.6 255    Pg    8:48:50.04   -0.13
                  Sg      48:53.73   -0.70
MORH 124.8 172    Sg    8:49:24.59    0.21
PKSM 125.2 172    Sg    8:49:24.54    0.03
PSZ  128.4  59    Sg    8:49:25.51   -0.01
```

991.

```
 2019-11-11  time:  8:50:01.95 UTC  ML= 1.7
   lat: 48.130N  lon: 21.359E  h=  0.0 km
                 erh= 3.1km    erz= 751km
   nr=  8        gap=168       rms=0.55
   Locality: Tarcal
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  20.5 334    Pg    8:50:06.19    0.58
                  Sg      50:07.40   -1.07
KECS  75.8 301    Pg    8:50:15.62    0.14
                  Sg      50:25.53   -0.51
TRPA  87.8  90    Pg    8:50:17.46   -0.17
                  Sg      50:30.22    0.36
PSZ  111.8 258    Pg    8:50:22.37    0.47
                  Sg      50:36.35   -1.12
```

992.

```
 2019-11-12  time:  5:46:22.28 UTC  ML= 2.3
   lat: 47.551N  lon: 18.397E  h=  8.2 km
                 erh= 1.2km    erz= 1.0km
   nr= 42        gap= 38       rms=0.69
   Locality: Tatabánya
   Comments:

sta   dist azm  phase  hr mn  sec     res
HU09   9.7 353    Pg    5:46:24.62    0.06
PKSG  17.8 182    Pg    5:46:25.66   -0.11
                  Sg      46:28.05   -0.45
CSKK  23.3 206    Pg    5:46:26.58   -0.12
                  Sg      46:30.11   -0.04
SRO   29.8 348    Pg    5:46:28.30    0.50
HU08  38.1 249    Pg    5:46:29.02   -0.22
PKST  42.5 220    Pg    5:46:29.47   -0.55
                  Sg      46:36.06    0.01
PBUD  47.3 102    Sg    5:46:37.48   -0.06
HU10  56.9  55    Pg    5:46:32.67    0.12
A267  67.6 175    Sg    5:46:43.66   -0.26
```

```
PENC  71.5  68    Pg    5:46:35.47    0.33
                  Sg      46:44.13   -1.03
PKS7  80.5 134    Sg    5:46:48.27    0.28
A336  88.1  31    Pg    5:46:37.63   -0.46
                  Sg      46:48.58   -1.84
PKS9 107.6 185    Pg    5:46:42.43    0.88
                  Sg      46:56.22   -0.36
PKB5 109.4 166    Pg    5:46:42.24    0.37
                  Sg      46:55.29   -1.86
PKB2 116.7 147    Pn    5:46:43.50    0.69
                  Sn      46:57.94   -0.88
PKB4 118.3 172    Pn    5:46:43.68    0.66
                  Sn      46:57.84   -1.35
PSZ  119.5  70    Pn    5:46:43.18    0.02
                  Sn      46:58.99   -0.45
ZST  120.5 306    Pn    5:46:43.40    0.11
                  Sn      46:58.13   -1.55
MODS 123.9 318   ePn    5:46:44.10    0.39
                 eSn      46:59.70   -0.73
PKS6 138.0 140    Sn    5:47:04.61    1.05
SOP  139.0 276    Sn    5:47:03.63   -0.16
PKB3 139.3 154    Sn    5:47:04.49    0.65
MORH 149.7 173    Pn    5:46:46.97    0.05
                  Sn      47:04.07   -2.07
RONA 158.8 276    Pn    5:46:49.68    1.62
                  Sn      47:06.54   -1.63
KOVH 164.2 188    Sn    5:47:10.88    1.50
KECS 187.1  56   ePn    5:46:52.20    0.61
                 eSn      47:18.10    3.65*
ARSA 219.5 261    Sn    5:47:21.78    0.13
VRAC 236.6 326    Pn    5:46:59.18    1.41
```

993.

```
 2019-11-12  time:  7:32:43.57 UTC  ML= 1.4
   lat: 47.107N  lon: 17.892E  h=  0.0 km
                 erh= 2.1km    erz= 301km
   nr=  8        gap=242       rms=0.21
   Locality: Veszprém
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  20.0  33    Pg    7:32:47.09   -0.05
                  Sg      32:49.93    0.01
CSKK  39.8  44    Pg    7:32:50.86    0.18
                  Sg      32:55.87   -0.35
PKB5  85.9 132    Sg    7:33:11.19    0.31
MORH 114.6 150    Pg    7:33:04.07    0.03
PKSM 114.9 150    Pg    7:33:04.03   -0.06
                  Sg      33:18.87   -1.22
```

994.

```
 2019-11-12  time:  9:19:08.54 UTC  ML= 1.1
   lat: 46.173N  lon: 18.292E  h=  0.0 km
                 erh= 1.0km    erz= 165km
   nr=  6        gap=202       rms=0.10
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.5 238    Pg    9:19:11.53   -0.14
                  Sg      19:14.39    0.28
PKSM  27.4  81    Pg    9:19:13.46    0.04
MORH  27.6  80    Pg    9:19:13.48    0.01
PKSV  31.7 186    Pg    9:19:14.24    0.03
                  Sg      19:18.58   -0.05
```

995.

```
 2019-11-12  time:  9:32:59.61 UTC  ML= 1.5
   lat: 48.512N  lon: 20.769E  h=  0.0 km
                 erh= 1.9km    erz= 486km
   nr=  7        gap=143       rms=0.32
   Locality: Tornaszentandrás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  21.2 261    Pg    9:33:03.06   -0.34
                  Sg      33:05.97   -0.38
ABAH  42.3 125    Pg    9:33:06.83   -0.33
                  Sg      33:13.27    0.22
PSZ   92.6 225    Pg    9:33:16.44    0.28
                  Sg      33:29.41    0.35
NIE  106.3 342    Pg    9:33:18.89    0.30
```

996.

```
 2019-11-13  time:  8:54:07.11 UTC  ML= 1.5
   lat: 46.122N  lon: 18.038E  h=  0.0 km
                 erh= 1.3km    erz= 220km
   nr=  9        gap=251       rms=0.17
   Locality: Bükkösd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   6.1 128    PgU   8:54:08.16   -0.04
                  Sg      54:09.51    0.47
PKSM  47.6  78    Pg    8:54:15.54   -0.08
                  Sg      54:22.03   -0.22
MORH  48.0  77    Pg    8:54:15.67    0.00
                  Sg      54:22.24   -0.11
PKS9  54.9  20    Sg    8:54:24.69    0.14
PKB4  60.2  46    Sg    8:54:26.57    0.31
PKB5  75.1  46    Sg    8:54:30.87   -0.12
```

997.

```
 2019-11-13  time: 11:19:26.32 UTC  ML= 1.9
   lat: 47.847N  lon: 19.128E  h=  0.0 km
                 erh= 2.5km    erz= 538km
   nr=  5        gap=150       rms=0.24
   Locality: Szendehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
HU10   8.2 269    Pg   11:19:27.57   -0.21
PENC  13.1 118    Pg   11:19:28.76    0.10
A336  44.0 347    Pg   11:19:34.55    0.37
                  Sg      19:40.12   -0.20
PSZ   57.9  82    Sg   11:19:44.46   -0.27
```

998.

```
 2019-11-14  time:  2:56:50.08 UTC  ML= 1.4
   lat: 45.667N  lon: 18.493E  h= 10.0 km
                 erh= 4.1km    erz=11.7km
   nr=  9        gap=312       rms=0.31
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  30.9 323    Pg    2:56:55.65   -0.23
                  Sg      57:00.77    0.36
KOVH  55.9 327    Pg    2:57:00.12   -0.10
                  Sg      57:08.06   -0.07
PKSM  61.6  11    Pg    2:57:01.07   -0.16
                  Sg      57:09.85   -0.07
MORH  62.1  11    Pg    2:57:01.23   -0.08
                  Sg      57:09.94   -0.13
PKB4  92.6   5    Pg    2:57:07.55    0.85
```

999.

```
 2019-11-14  time:  8:26:31.88 UTC  ML= 1.3
   lat: 47.285N  lon: 18.417E  h=  0.0 km
                 erh= 2.0km    erz= 3.4km
   nr=  7        gap=114       rms=0.88
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  12.0 351    Pg    8:26:33.29   -0.74
                  Sg      26:33.89   -1.81
PKST  29.1 264    Pg    8:26:37.66    0.59
                  Sg      26:40.90   -0.22
MORH 120.1 172    Sg    8:27:11.02    0.95
PKSM 120.6 172    Sg    8:27:11.45    1.25
PSZ  131.6  58    Sn    8:27:13.51   -0.09
```

1000.

```
 2019-11-14  time:  8:39:15.16 UTC  ML= 1.5
   lat: 48.606N  lon: 20.749E  h=  0.0 km
                 erh= 2.7km    erz= 719km
   nr=  7        gap=153       rms=0.48
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.7 235    Pg    8:39:19.88    0.48
                  Sg      39:22.74    0.04
ABAH  50.0 133    Pg    8:39:24.11    0.02
                  Sg      39:30.83   -0.23
NIE   95.9 341    Pg    8:39:31.85   -0.43
PSZ   99.3 220    Sg    8:39:44.72   -2.01
LANS 111.8 303    Pg    8:39:35.48    0.35
```

1001.

```
 2019-11-14  time:  8:41:03.30 UTC  ML= 1.5
   lat: 47.851N  lon: 19.118E  h=  0.0 km
                 erh= 1.6km    erz= 456km
   nr=  7        gap=117       rms=0.31
   Locality: Szendehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  14.0 119    Pg    8:41:05.99    0.19
                  Sg      41:07.62   -0.13
A336  43.4 348    Pg    8:41:11.25    0.20
                  Sg      41:16.86   -0.24
PSZ   58.6  83    Pg    8:41:14.05    0.29
                  Sg      41:21.41   -0.51
PKST 104.8 231    Sg    8:41:35.96   -0.64
```

1002.

```
 2019-11-14  time:  8:59:15.84 UTC  ML= 1.6
   lat: 45.839N  lon: 18.422E  h=  0.0 km
                 erh= 6.1km    erz= 902km
   nr=  8        gap=270       rms=0.66
   Locality: Nagyharsány
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSV  14.3 293    Pg    8:59:18.24   -0.15
                  Sg      59:19.74   -0.63
KOVH  37.3 318    Sg    8:59:27.25   -0.44
PKSM  44.8  22    Pg    8:59:23.81   -0.03
                  Sg      59:29.80   -0.28
MORH  45.3  22    Pg    8:59:23.81   -0.12
                  Sg      59:29.83   -0.41
PKS9  83.9 352    Pg    8:59:32.54    1.72
```

1003.

```
 2019-11-14  time: 10:04:59.50 UTC  ML= 1.6
   lat: 47.870N  lon: 19.401E  h=  0.0 km
                 erh= 2.6km    erz= 4.0km
   nr= 13        gap=143       rms=0.71
   Locality: Bercel
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  12.6 225    Pg   10:05:01.85    0.10
                  Sg      05:03.71    0.20
PSZ   37.3  82    Pg   10:05:06.15    0.00
                  Sg      05:11.54    0.19
A336  50.3 323    Pg   10:05:09.09    0.62
                  Sg      05:14.76   -0.71
PKSG  92.7 235    Pg   10:05:16.14    0.08
                  Sg      05:27.89   -1.09
KECS 105.6  50   ePg   10:05:18.10   -0.25
LANS 142.4   2   ePn   10:05:26.20    1.91
                 eSn      05:41.70   -1.93
MODS 167.7 289   ePn   10:05:26.50   -0.95
                 eSn      05:49.70    0.45
```

1004.

```
 2019-11-14  time: 10:32:11.62 UTC  ML= 0.6
   lat: 47.188N  lon: 18.307E  h=  0.0 km
                 erh= 1.3km    erz= 323km
   nr=  5        gap=151       rms=0.15
   Locality: Székesfehérvár
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  22.1 291    Pg   10:32:15.64    0.06
                  Sg      32:18.51   -0.15
PKSG  23.6  16    Pg   10:32:15.99    0.16
                  Sg      32:18.85   -0.26
PKSM 111.5 167    Sg   10:32:46.99   -0.06
```

1005.

```
 2019-11-14  time: 10:54:18.20 UTC  ML= 1.7
   lat: 48.600N  lon: 20.805E  h=  0.0 km
                 erh= 2.1km    erz= 650km
   nr=  9        gap=117       rms=0.49
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  26.9 241    Pg   10:54:23.02    0.01
                  Sg      54:27.30    0.54
ABAH  46.7 136    Pg   10:54:26.60    0.06
                  Sg      54:32.50   -0.53
STHS  96.3  19   ePg   10:54:36.60    1.19
                 eSg      54:48.00   -0.82
PSZ  101.6 222    Pg   10:54:36.44    0.10
                  Sg      54:50.17   -0.32
LANS 115.6 302    Pg   10:54:38.35   -0.50
```

1006.

```
 2019-11-14  time: 12:18:57.64 UTC  ML= 2.1
   lat: 48.237N  lon: 21.230E  h=  0.0 km
                 erh= 2.8km    erz= 2.7km
   nr= 12        gap=139       rms=0.71
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   6.6   6    Pg   12:18:58.87    0.05
                  Sg      18:59.79    0.05
KECS  61.6 296   ePg   12:19:08.50   -0.15
                 eSg      19:16.60   -0.63
```

```
PSZ  105.7 250    Pg   12:19:16.89    0.38
                  Sg      19:30.53   -0.70
STHS 131.2   0   ePn   12:19:19.30   -1.73
NIE  147.7 333    Sn   12:19:43.96    1.02
LANS 164.8 308    Sn   12:19:47.22    0.48
A336 165.8 270    Sn   12:19:47.22    0.27
DRGR 195.6 145    Pn   12:19:30.17    1.11
                  Sn      19:52.62   -0.95
```

1007.

```
 2019-11-15  time: 10:01:06.09 UTC  ML= 1.4
   lat: 47.398N  lon: 18.371E  h=  0.0 km
                 erh= 4.8km    erz= 4.3km
   nr=  7        gap=184       rms=1.34
   Locality: Gánt
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG   1.6 113    Pg   10:01:07.17    0.79
                  Sg      01:07.48    0.87
PKST  29.7 239    Pg   10:01:12.68    1.28
                  Sg      01:15.88    0.34
PSZ  128.3  63    Sg   10:01:45.09   -1.77
MORH 133.0 171    Sn   10:01:45.75   -2.38
PKSM 133.4 171    Sn   10:01:46.67   -1.55
```

1008.

```
 2019-11-18  time: 10:53:16.42 UTC  ML= 1.8
   lat: 47.963N  lon: 20.044E  h=  0.0 km
                 erh= 5.8km    erz= 6.2km
   nr= 10        gap=176       rms=0.89
   Locality: Mátraballa
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   12.2 246    Pg   10:53:18.65    0.06
                  Sg      53:20.71    0.42
PENC  60.1 251    Pg   10:53:27.74    0.59
                  Sg      53:35.39   -0.14
KECS  66.5  30    Pg   10:53:30.18    1.88
                  Sg      53:36.84   -0.72
A336  83.4 291    Pg   10:53:30.69   -0.62
ABAH  96.4  67    Pg   10:53:33.68    0.05
                  Sg      53:45.55   -1.51
PKSG 139.4 243    Sn   10:53:58.52   -1.36
```

1009.

```
 2019-11-18  time: 11:16:37.39 UTC  ML= 2.0
   lat: 48.859N  lon: 20.627E  h=  7.3 km
                 erh= 6.8km    erz= 5.0km
   nr= 12        gap=158       rms=1.33
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
KECS  43.1 194    Pg   11:16:44.81   -0.38
                  Sg      16:50.71   -0.57
NIE   66.3 340    Sg   11:16:57.73   -0.86
STHS  76.6  36    Pg   11:16:51.19    0.06
                  Sg      16:57.78   -4.07
LANS  90.8 291   eSg   11:17:01.90   -4.43
PSZ  117.9 207    Pn   11:16:58.69    0.51
                  Sn      17:13.10   -1.30
A336 138.9 240    Pn   11:17:03.06    2.26
                  Sn      17:17.33   -1.74
OJC  162.7 338    Pn   11:17:05.25    1.48
                  Sn      17:24.60    0.24
```

1010.

```
 2019-11-18  time: 11:39:25.74 UTC  ML= 0.8
   lat: 47.183N  lon: 18.214E  h=  0.0 km
                 erh= 0.4km    erz=89.8km
   nr=  5        gap=138       rms=0.04
   Locality: Csór
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  16.0 302    Pg   11:39:28.60    0.00
                  Sg      39:30.82   -0.01
PKSG  26.7  30    Pg   11:39:30.57    0.05
                  Sg      39:34.17   -0.07
PKSM 112.8 163    Sg   11:40:01.59   -0.02
```

1011.

```
 2019-11-18  time: 13:28:11.60 UTC  ML= 1.6
   lat: 47.869N  lon: 20.158E  h=  0.0 km
                 erh= 5.4km    erz= 405km
   nr=  6        gap=226       rms=0.23
   Locality: Tarnaszentmária
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   20.4 285    Pg   13:28:15.21   -0.04
                  Sg      28:17.97   -0.13
ABAH  93.5  60    Pg   13:28:28.59    0.29
                  Sg      28:40.95   -0.38
A336  95.4 295    Pg   13:28:28.47   -0.17
                  Sg      28:42.28    0.36
```

1012.

```
 2019-11-18  time: 14:38:58.72 UTC  ML= 1.6
   lat: 47.084N  lon: 19.403E  h=  0.0 km
                 erh= 3.4km    erz= 4.1km
   nr=  8        gap=189       rms=0.48
   Locality: Tatárszentgyörgy
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKS7  18.9 258    Pg   14:39:02.04   -0.05
                  Sg      39:04.62   -0.10
PENC  79.1 353    Pg   14:39:13.63    0.79
PSZ   99.9  22    Pg   14:39:16.44   -0.11
                  Sg      39:28.57   -1.90
MORH 112.7 211    Pg   14:39:18.69   -0.14
PKSM 113.1 211    Pg   14:39:19.07    0.15
KOVH 149.1 222    Sn   14:39:43.68   -0.65
```

1013.

```
 2019-11-19  time:  7:33:52.55 UTC  ML= 1.8
   lat: 46.866N  lon: 18.423E  h=  5.0 km
                 erh= 1.5km    erz= 5.8km
   nr= 25        gap=126       rms=0.58
   Locality: Dég
   Comments:

sta   dist azm  phase  hr mn  sec     res
A267  10.0  27    Pg    7:33:54.54   -0.01
                  Sg      33:55.73   -0.37
PKB1  29.6 108    PgU   7:33:58.56    0.64
                  Sg      34:02.57    0.47
PKS9  33.0 200    Pg    7:33:59.44    0.93
PKB5  38.5 142    Pg    7:33:59.41   -0.07
                  Sg      34:04.31   -0.58
A266  39.8 198    Pg    7:34:00.54    0.83
PKB4  43.4 161    Pg    7:34:00.75    0.40
                  Sg      34:06.32   -0.12
A272  43.6 108    Pg    7:34:00.10   -0.28
A271  44.8  44    Pg    7:34:00.77    0.17
```

PKST	52.7	326	Pg	7:34:01.98	-0.03
			Sg	34:08.97	-0.41
PKSG	58.5	358	Sg	7:34:09.80	-1.41
PKB2	66.1	109	Pg	7:34:05.13	0.74
PKS2	73.4	125	Pg	7:34:05.77	0.08
MORH	74.3	167	Pg	7:34:05.65	-0.20
			Sg	34:14.54	-1.68
PKSM	74.7	167	Pg	7:34:05.66	-0.26
			Sg	34:14.55	-1.79
PKB3	76.9	130	Sg	7:34:16.15	-0.89
KOVH	90.0	196	Pg	7:34:08.51	-0.14
			Sg	34:19.87	-1.33
PKS6	92.1	109	Pg	7:34:09.18	0.15

1014.

2019-11-19 time: 9:22:54.38 UTC ML= 1.3
lat: 48.585N lon: 20.799E h= 0.0 km
erh= 4.7km erz= ***km
nr= 10 gap=115 rms=1.31
Locality: Tornanádaska
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	25.8	244	Sg	9:23:02.75	0.18
ABAH	45.7	135	Pg	9:23:02.55	0.00
			Sg	23:09.29	0.38
STHS	98.1	19	ePg	9:23:11.00	-0.89
			eSg	23:24.00	-1.55
NIE	99.4	339	Pg	9:23:14.50	2.38
PSZ	100.0	222	Pg	9:23:13.07	0.83
			Sg	23:24.71	-1.46
LANS	116.2	303	ePg	9:23:13.70	-1.43
			eSg	23:28.60	-2.72

1015.

2019-11-19 time: 10:16:08.99 UTC ML= 1.4
lat: 47.940N lon: 20.440E h= 0.0 km
erh= 3.6km erz= 362km
nr= 7 gap=249 rms=0.30
Locality: Noszvaj
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
HU02	21.2	17	Pg	10:16:13.09	0.31
			Sg	16:16.11	0.37
PSZ	40.8	267	Pg	10:16:16.51	0.23
			Sg	16:21.67	-0.29
KECS	60.5	3	Pg	10:16:19.76	-0.03
			Sg	16:27.59	-0.63
JOS	62.3	7	Pg	10:16:19.82	-0.29

1016.

2019-11-19 time: 13:28:53.72 UTC ML= 1.6
lat: 47.074N lon: 19.430E h= 0.0 km
erh= 4.3km erz= 680km
nr= 6 gap=192 rms=0.39
Locality: Tatárszentgyörgy
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKS7	20.7	262	Pg	13:28:57.14	-0.27
			Sg	29:00.25	-0.04
PENC	80.4	352	Pg	13:29:08.73	0.65
PSZ	100.2	20	Pg	13:29:11.49	-0.11
			Sg	29:24.77	-0.78
PKSM	113.3	212	Pg	13:29:14.09	0.14

1017.

2019-11-20 time: 8:04:41.47 UTC ML= 1.9
lat: 47.325N lon: 18.450E h= 0.0 km
erh= 1.1km erz= 1.6km
nr= 9 gap=114 rms=0.30
Locality: Zámoly
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	8.7	329	PgU	8:04:43.16	0.13
			Sg	04:43.47	-0.77
PKST	32.3	257	Pg	8:04:47.64	0.41
			Sg	04:51.67	-0.06
MORH	124.1	173	Sg	8:05:20.85	-0.07
PKSM	124.5	173	Sg	8:05:20.67	-0.38
PSZ	127.1	59	Sg	8:05:21.87	0.02
KOVH	140.0	191	Sn	8:05:25.10	0.04
MODS	146.0	323	eSn	8:05:26.20	-0.19

1018.

2019-11-20 time: 8:07:21.13 UTC ML= 1.8
lat: 48.263N lon: 21.211E h= 0.0 km
erh= 5.4km erz= 875km
nr= 6 gap=219 rms=0.51
Locality: Abaújszántó
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
ABAH	4.3	30	Pg	8:07:21.44	-0.44
			Sg	07:22.88	0.40
KECS	59.1	295	Pg	8:07:31.59	-0.09
			Sg	07:39.96	0.06
PSZ	105.3	249	Pg	8:07:40.67	0.74
			Sg	07:53.72	-0.88

1019.

2019-11-20 time: 8:34:21.03 UTC ML= 1.7
lat: 46.078N lon: 18.121E h= 0.0 km
erh= 2.5km erz= 792km
nr= 8 gap=151 rms=0.58
Locality: Cserkút
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	2.0	305	PgU	8:34:20.57	-0.82
			Sg	34:22.01	0.35
PKSV	23.4	154	Sg	8:34:29.41	0.93
PKSM	42.9	70	Sg	8:34:34.19	-0.47
MORH	43.2	69	Sg	8:34:34.35	-0.43
PKB4	59.6	39	Pg	8:34:31.89	0.22
			Sg	34:40.80	0.84
PKB5	74.4	39	Sg	8:34:44.71	0.01

1020.

2019-11-20 time: 10:50:08.74 UTC ML= 1.6
lat: 48.596N lon: 20.730E h= 0.0 km
erh= 2.3km erz= 4.6km
nr= 11 gap=150 rms=0.62
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	22.0	235	Pg	10:50:12.91	0.24
			Sg	50:16.10	0.37
ABAH	50.3	132	Pg	10:50:17.75	0.03
			Sg	50:24.03	-0.70
NIE	96.5	342	Pg	10:50:27.08	1.11
			Sg	50:38.47	-0.94
PSZ	97.6	219	Pg	10:50:26.43	0.26
			Sg	50:39.12	-0.65

```
LANS 111.3 304    Pg   10:50:28.59   -0.03
                  Sg      50:42.59   -1.53
A336 134.4 253    Sn   10:50:50.82   -0.27
```

1021.

```
 2019-11-21  time:  7:30:45.46 UTC  ML= 0.8
   lat: 47.295N  lon: 18.334E  h=  0.0 km
                 erh= 1.5km    erz= 2.3km
   nr=  6        gap=122       rms=0.22
   Locality: Magyaralmás
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  11.5  22    Pg    7:30:47.71    0.19
                  Sg      30:48.88   -0.25
PKST  23.1 260    Pg    7:30:49.75    0.17
                  Sg      30:52.35   -0.44
PKSM 122.7 169    Sg    7:31:24.45   -0.01
PSZ  136.2  59    Sn    7:31:28.07   -0.14
```

1022.

```
 2019-11-21  time: 10:30:54.32 UTC  ML= 2.3
   lat: 48.240N  lon: 21.214E  h=  0.0 km
                 erh= 2.3km    erz= 2.4km
   nr=  8        gap=233       rms=0.31
   Locality: Tállya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH   6.5  17    Pg   10:30:55.06   -0.42
                  Sg      30:56.77    0.39
KECS  60.4 297    Pg   10:31:05.16    0.06
                  Sg      31:13.40   -0.11
PSZ  104.7 250    Pg   10:31:13.19    0.18
                  Sg      31:27.30   -0.29
LANS 163.6 308    Sn   10:31:43.45    0.29
A336 164.6 270    Sn   10:31:44.83    1.46
```

1023.

```
 2019-11-21  time: 12:30:44.57 UTC  ML= 2.0
   lat: 48.121N  lon: 18.996E  h=  0.0 km
                 erh= 2.2km    erz= 731km
   nr=  7        gap=106       rms=0.48
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A336  12.5   1    Pg   12:30:46.96    0.16
                  Sg      30:49.05    0.51
PENC  42.5 150    Sg   12:30:58.55    0.47
A338  49.4 256    Sg   12:30:59.88   -0.38
PSZ   70.7 109    Sg   12:31:07.29    0.24
KECS 117.7  70   ePg   12:31:04.90   -0.68
                 eSg      31:20.30   -1.67
```

1024.

```
 2019-11-22  time:  9:30:46.60 UTC  ML= 1.5
   lat: 48.099N  lon: 21.275E  h=  0.0 km
                 erh= 8.3km    erz= ***km
   nr=  5        gap=266       rms=0.50
   Locality: Taktabáj
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  22.0 353    Pg    9:30:50.80    0.27
                  Sg      30:52.07   -1.53
KECS  72.5 306    Pg    9:30:59.94    0.40
                  Sg      31:09.49   -0.15
PSZ  105.0 259    Pg    9:31:05.18   -0.17
```

1025.

```
 2019-11-22  time: 10:04:17.28 UTC  ML= 1.7
   lat: 48.599N  lon: 20.782E  h=  0.0 km
                 erh= 1.8km    erz= 3.0km
   nr= 11        gap=114       rms=0.46
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  25.4 240    Pg   10:04:22.40    0.59
                  Sg      04:24.56   -0.78
ABAH  47.8 135    Pg   10:04:26.32    0.51
                  Sg      04:32.10   -0.36
STHS  97.0  20    Pg   10:04:34.72    0.11
                  Sg      04:46.97   -1.16
PSZ  100.3 221    Pg   10:04:34.82   -0.38
                  Sg      04:48.82   -0.35
LANS 114.3 302    Pg   10:04:38.03    0.34
A336 138.1 253    Pn   10:04:41.58    0.04
                  Sn      05:00.28   -0.17
```

1026.

```
 2019-11-25  time:  9:50:56.52 UTC  ML= 1.7
   lat: 47.800N  lon: 18.989E  h=  0.0 km
                 erh= 2.6km    erz= 817km
   nr=  7        gap=132       rms=0.54
   Locality: Kisoroszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  22.0  93    Pg    9:51:00.99    0.55
                  Sg      51:03.74    0.23
A336  48.1   1    Pg    9:51:05.12    0.01
                  Sg      51:11.81   -0.01
PKSG  63.9 225    Sg    9:51:16.10   -0.73
PSZ   69.1  79    Sg    9:51:17.12   -1.35
PKST  93.7 230    Sg    9:51:26.62    0.31
```

1027.

```
 2019-11-26  time:  4:10:49.06 UTC  ML= 2.6
   lat: 46.101N  lon: 16.601E  h= 10.0 km
                 erh= 1.5km    erz= 1.3km
   nr= 31        gap=137       rms=0.54
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
BEHE  43.2  18    Pg    4:10:57.38    0.40
                  Sg      11:03.30    0.15
KOGS  47.1 325    Pg    4:10:57.51   -0.15
                  Sg      11:03.10   -1.27
PTJ   54.6 246    Pg    4:10:58.91   -0.06
                  Sg      11:05.96   -0.74
ZAG   55.9 237    Pg    4:10:59.82    0.62
                  Sg      11:07.69    0.57
GOLS  76.2 262   iPg    4:11:03.39    0.60
                 eSg      11:13.91    0.41
GCIS  79.8 251   iPg    4:11:03.51    0.09
                 eSg      11:14.20   -0.42
DOBS  87.6 274   iPg    4:11:04.69   -0.12
                 eSg      11:16.04   -1.06
CESS  89.2 261   iPg    4:11:04.56   -0.53
                 eSg      11:17.11   -0.49
GROS  93.7 295    Pg    4:11:05.84   -0.05
CRES  93.8 251    Pg    4:11:05.67   -0.24
LEGS 100.8 260   ePg    4:11:07.44    0.29
                 eSg      11:20.61   -0.65
KOVH 115.9  91    Pn    4:11:08.99   -0.28
                  Sn      11:23.79   -1.24
ZAVS 127.0 287   iPn    4:11:10.95    0.29
                 eSn      11:26.22   -1.28
PERS 128.8 298    Pn    4:11:11.54    0.67
```

```
                  Sn      11:27.16   -0.73
PKSV 130.1 100    Pn    4:11:10.86   -0.18
SOKA 136.6 298    Pn    4:11:12.51    0.66
                  Sn      11:27.41   -2.22*
RONA 179.2 353    Pn    4:11:18.61    1.44
                  Sn      11:39.62    0.53
```

1028.

```
 2019-11-26  time:  7:25:31.72 UTC  ML= 1.8
   lat: 47.533N  lon: 18.032E  h= 10.9 km
                 erh= 2.1km    erz= 1.8km
   nr= 23        gap= 98       rms=0.88
   Locality: Kisbér
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKST  30.5 180    Pg    7:25:37.01   -0.49
                  Sg      25:41.89   -0.12
PKSG  31.3 120    Pg    7:25:37.38   -0.25
                  Sg      25:42.47    0.23
SRO   37.6  34    Pg    7:25:38.86    0.14
                  Sg      25:44.57    0.39
A339  43.4 319    Sg    7:25:46.44    0.50
BUD   74.9  94    Sg    7:25:54.30   -1.48
PENC  98.1  73    Sg    7:26:03.12    0.02
A336 106.3  43    Pn    7:25:50.48   -0.13
                  Sn      26:03.46   -1.88
MODS 109.2 329   ePn    7:25:51.20    0.23
                 eSn      26:03.80   -2.18
PKB5 117.2 153    Pn    7:25:53.35    1.38
                  Sn      26:07.02   -0.75
RONA 131.8 278    Pn    7:25:53.47   -0.32
                  Sn      26:08.87   -2.14
PSZ  146.1  73    Sn    7:26:16.33    2.14
MORH 153.7 162    Sn    7:26:15.27   -0.60
PKSM 154.1 162    Pn    7:25:56.88    0.31
                  Sn      26:17.12    1.17
CONA 168.6 285    Pn    7:26:00.08    1.69
                  Sn      26:19.50    0.31
```

1029.

```
 2019-11-26  time: 10:07:43.41 UTC  ML= 1.5
   lat: 46.175N  lon: 18.286E  h=  0.0 km
                 erh= 0.8km    erz= 153km
   nr=  8        gap=205       rms=0.11
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.3 236    Pg   10:07:46.36   -0.15
                  Sg      07:49.03    0.11
PKSM  27.7  82    Pg   10:07:48.45    0.09
                  Sg      07:52.05   -0.18
MORH  28.0  81    Pg   10:07:48.52    0.10
                  Sg      07:52.26   -0.06
PKSV  32.0 185    Pg   10:07:49.07   -0.05
                  Sg      07:53.70    0.13
```

1030.

```
 2019-11-26  time: 11:33:03.08 UTC  ML= 1.5
   lat: 48.584N  lon: 20.769E  h=  0.0 km
                 erh= 4.3km    erz= 9.1km
   nr= 11        gap= 90       rms=1.27
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.7 242    Pg   11:33:07.37    0.05
                  Sg      33:10.07   -0.56
ABAH  47.3 133    Sg   11:33:17.63   -0.50
PSZ   98.5 221    Pg   11:33:22.07    1.40
                  Sg      33:34.43    0.04
NIE   98.6 340    Pg   11:33:22.84    2.15
STHS  98.9  21   ePg   11:33:20.40   -0.34
                 eSg      33:31.90   -2.61
LANS 114.3 303    Pg   11:33:23.30   -0.20
                  Sg      33:37.49   -1.94
TRPA 140.6 111    Sn   11:33:44.59   -2.22
```

1031.

```
 2019-11-27  time:  8:39:10.37 UTC  ML= 2.1
   lat: 47.286N  lon: 18.384E  h=  0.0 km
                 erh= 1.3km    erz= 1.8km
   nr=  6        gap=168       rms=1.08
   Locality: Zámoly
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  11.7   2    PgU   8:39:11.65   -0.82
                  Sg      39:12.08   -2.03
PKST  26.6 263    Sg    8:39:19.37    0.53
MORH 120.6 171    Sg    8:39:49.65    0.93
PKSM 121.1 171    Sg    8:39:49.58    0.73
KOVH 134.9 189    Sn    8:39:54.05    1.21
```

1032.

```
 2019-11-27  time:  8:42:08.70 UTC  ML= 1.9
   lat: 47.846N  lon: 19.083E  h=  0.0 km
                 erh= 4.9km    erz= ***km
   nr=  5        gap=121       rms=0.67
   Locality: Szendehely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  16.1 113    Pg    8:42:11.59    0.01
                  Sg      42:13.79   -0.03
A336  43.5 352    Sg    8:42:22.71    0.19
PKSG  72.5 226    Sg    8:42:32.76    1.01
PKST 102.4 230    Sg    8:42:39.86   -1.39
```

1033.

```
 2019-11-28  time:  8:32:05.70 UTC  ML= 1.9
   lat: 46.971N  lon: 17.605E  h=  0.0 km
                 erh= 8.9km    erz= ***km
   nr=  8        gap=247       rms=0.96
   Locality: Vigántpetend
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
TIH   23.3 110    Pg    8:32:10.36    0.51
                  Sg      32:15.09    1.99
PKST  45.7  45    Pg    8:32:14.13    0.27
                  Sg      32:19.34   -0.89
PKSG  75.8  52    Sg    8:32:29.68   -0.10
KOVH 105.1 159    Sg    8:32:39.56    0.44
MORH 115.7 136    Sg    8:32:40.80   -1.66
PKSM 115.8 137    Sg    8:32:41.11   -1.41
```

1034.

```
 2019-11-28  time: 11:43:41.77 UTC  ML= 1.9
   lat: 48.182N  lon: 21.162E  h=  0.0 km
                 erh= 3.3km    erz= 796km
   nr=  6        gap=160       rms=0.48
   Locality: Szerencs
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  14.0  24    PgU  11:43:44.62    0.36
                  Sg      43:45.80   -0.40
KECS  60.3 304    Sg   11:44:01.39    0.44
PSZ   98.9 253    Pg   11:43:58.96   -0.48
TRPA 102.6  93    Pg   11:44:00.54    0.45
```

```
                  Sg      44:13.61   -0.78
```

1035.

```
 2019-11-28  time: 12:10:02.56 UTC  ML= 2.1
   lat: 48.193N  lon: 21.289E  h=  0.0 km
                 erh= 2.8km    erz= 662km
   nr=  6        gap=159       rms=0.39
   Locality: Mád
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
ABAH  12.0 342    PgU  12:10:04.91    0.20
                  Sg      10:06.08   -0.30
KECS  67.7 298    Pg   12:10:15.03    0.37
                  Sg      10:23.09   -1.00
TRPA  93.3  94    Sg   12:10:32.05   -0.16
PSZ  108.4 254    Sg   12:10:37.02    0.01
```

1036.

```
 2019-11-28  time: 23:25:42.00 UTC  ML= 1.3
   lat: 48.022N  lon: 20.663E  h= 11.4 km
                 erh= 1.1km    erz= 2.5km
   nr= 11        gap=161       rms=0.25
   Locality: Kisgyőr
   Comments:

sta   dist azm  phase  hr mn  sec     res
HU02  15.1 317    PgU  23:25:45.56    0.18
                  Sg      25:48.14    0.11
ABAH  52.6  55    Pg   23:25:51.62    0.01
                  Sg      25:58.87   -0.23
KECS  52.9 346    Pg   23:25:52.11    0.45
                  Sg      25:58.99   -0.21
HU23  53.0 216    Sg   23:25:58.93   -0.29
JOS   53.4 350    Pg   23:25:51.88    0.12
                  Sg      25:58.90   -0.47
PSZ   58.6 259    PgU  23:25:52.64   -0.01
                  Sg      26:00.55   -0.41
```

1037.

```
 2019-11-29  time:  9:42:37.87 UTC  ML= 1.7
   lat: 47.687N  lon: 18.553E  h=  0.0 km
                 erh= 4.3km    erz= ***km
   nr=  7        gap=107       rms=0.97
   Locality: Nagysáp
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
SRO   22.8 308    Sg    9:42:44.66   -0.46
PKSG  35.0 200    Pg    9:42:44.73    0.60
                  Sg      42:49.26    0.25
BUD   42.0 123    Sg    9:42:49.15   -2.07
PENC  55.8  78    Pg    9:42:48.64    0.80
                  Sg      42:56.11    0.50
A336  69.2  29    Sg    9:42:58.27   -1.61
```

1038.

```
 2019-11-29  time: 10:10:58.96 UTC  ML= 0.6
   lat: 47.492N  lon: 18.032E  h=  0.1 km
                 erh= 2.4km    erz= 670km
   nr=  6        gap=143       rms=0.40
   Locality: Kisbér
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKST  25.9 180    Pg   10:11:03.96    0.38
                  Sg      11:06.48   -0.71
PKSG  29.2 112    Pg   10:11:04.48    0.30
                  Sg      11:07.74   -0.51
SRO   41.5  31    Sg   10:11:12.26    0.10
A339  47.0 323    Sg   10:11:13.56   -0.33
```

1039.

```
 2019-11-30  time: 10:14:58.16 UTC  ML= 1.1
   lat: 46.174N  lon: 18.296E  h=  0.0 km
                 erh= 0.7km    erz= 133km
   nr=  8        gap=202       rms=0.09
   Locality: Zobákpuszta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  17.9 238    Pg   10:15:01.21   -0.14
                  Sg      15:04.04    0.20
PKSM  27.0  81    Pg   10:15:02.98   -0.01
                  Sg      15:06.80    0.05
MORH  27.3  80    Pg   10:15:03.12    0.08
                  Sg      15:06.76   -0.08
PKSV  31.9 186    Pg   10:15:03.86    0.01
                  Sg      15:08.23   -0.06
```

1040.

```
 2019-11-30  time: 16:04:12.73 UTC  ML= 1.5
   lat: 48.013N  lon: 20.666E  h=  9.8 km
                 erh= 1.5km    erz= 3.2km
   nr= 10        gap=206       rms=0.25
   Locality: Kisgyőr
   Comments:

sta   dist azm  phase  hr mn  sec     res
HU02  16.0 319    PgU  16:04:16.28    0.20
                  Sg      04:18.70    0.01
ABAH  53.0  54    Pg   16:04:22.14   -0.21
                  Sg      04:29.70   -0.16
KECS  53.9 346    Pg   16:04:22.93    0.42
                  Sg      04:29.88   -0.27
JOS   54.5 350    Pg   16:04:22.79    0.18
                  Sg      04:29.86   -0.46
PSZ   58.5 260    Pg   16:04:23.35    0.02
                  Sg      04:31.25   -0.35
```

1041.

```
 2019-12-02  time: 10:00:16.28 UTC  ML= 1.8
   lat: 48.601N  lon: 20.728E  h=  0.0 km
                 erh= 1.5km    erz= 2.8km
   nr=  9        gap=109       rms=0.37
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.2 234    Pg   10:00:20.64    0.40
                  Sg      00:23.70    0.37
ABAH  50.8 132    Pg   10:00:25.27   -0.09
                  Sg      00:31.99   -0.45
PSZ   98.0 219    Sg   10:00:47.06   -0.36
STHS  98.2  23   ePg   10:00:34.00    0.18
LANS 110.8 303    Pg   10:00:36.31    0.24
                  Sg      00:50.48   -1.02
A336 134.4 252    Sn   10:00:58.20   -0.42
```

1042.

```
 2019-12-02  time: 11:40:02.93 UTC  ML= 1.8
   lat: 47.750N  lon: 19.047E  h=  0.0 km
                 erh= 2.6km    erz= 5.8km
   nr= 10        gap=108       rms=0.77
   Locality: Tahitótfalu
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  18.2  76    Pg   11:40:07.07    0.90
                  Sg      40:09.65    0.95
```

```
BUD   29.6 183    Sg   11:40:11.74   -0.61
A336  53.9 356    Pg   11:40:12.60    0.06
                  Sg      40:19.05   -1.00
SRO   55.4 277   eSg   11:40:21.80    1.25
PSZ   66.2  74    Pg   11:40:14.59   -0.15
                  Sg      40:23.25   -0.71
KECS 134.6  53   ePn   11:40:26.00   -0.75
                 eSn      40:43.30   -2.03
```

1043.

```
 2019-12-03  time:  9:21:51.88 UTC  ML= 1.5
   lat: 46.103N  lon: 18.039E  h=  0.0 km
                 erh= 2.3km    erz= 523km
   nr= 14        gap=234       rms=0.45
   Locality: Bükkösd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH   5.0 109    Pg    9:21:52.74   -0.03
                  Sg      21:54.12    0.65
PKSV  29.0 145    Pg    9:21:56.88   -0.18
                  Sg      22:01.60    0.49
PKSM  48.1  75    Pg    9:22:00.05   -0.41
                  Sg      22:06.54   -0.62
MORH  48.4  75    Pg    9:22:00.15   -0.37
                  Sg      22:06.43   -0.83
PKS9  56.9  19    Pg    9:22:02.47    0.44
                  Sg      22:09.36   -0.59
PKB4  61.7  45    Pg    9:22:02.83   -0.06
                  Sg      22:11.83    0.35
PKB5  76.6  44    Pg    9:22:06.05    0.50
                  Sg      22:17.00    0.78
```

1044.

```
 2019-12-03  time:  9:53:29.05 UTC  ML= 0.8
   lat: 47.196N  lon: 18.286E  h=  0.0 km
                 erh= 0.9km    erz= 259km
   nr=  6        gap=146       rms=0.16
   Locality: Sárkeszi
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  20.3 290    Pg    9:53:32.68    0.00
                  Sg      53:35.33   -0.18
PKSG  23.2  20    Pg    9:53:33.37    0.18
                  Sg      53:36.07   -0.35
MORH 112.3 166    Sg    9:54:04.77    0.01
PKSM 112.7 166    Sg    9:54:04.97    0.09
```

1045.

```
 2019-12-03  time:  9:58:03.24 UTC  ML= 1.7
   lat: 48.579N  lon: 20.715E  h=  0.0 km
                 erh= 2.9km    erz= 7.2km
   nr=  9        gap=128       rms=0.91
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  20.1 238    Pg    9:58:07.52    0.70
                  Sg      58:10.07    0.45
ABAH  50.0 129    Pg    9:58:12.83    0.66
                  Sg      58:19.31    0.18
PSZ   95.5 220    Pg    9:58:20.64    0.34
                  Sg      58:31.88   -1.72
NIE   97.9 343    Sg    9:58:33.10   -1.25
LANS 111.4 305    Pg    9:58:23.19    0.06
TRPA 144.1 110    Sn    9:58:45.05   -2.70
```

1046.

```
 2019-12-04  time: 10:29:20.56 UTC  ML= 1.8
   lat: 48.573N  lon: 20.771E  h=  0.0 km
                 erh= 1.4km    erz= 1.9km
   nr= 13        gap= 90       rms=0.57
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.3 245    Pg   10:29:25.05    0.33
                  Sg      29:28.46    0.49
ABAH  46.4 132    Pg   10:29:29.07    0.23
                  Sg      29:36.17    0.87
PSZ   97.6 222    Pg   10:29:38.25    0.25
                  Sg      29:50.34   -1.25
NIE   99.9 340    Pg   10:29:38.74    0.35
STHS 100.0  20    Pg   10:29:38.94    0.52
                  Sg      29:51.82   -0.53
A336 136.5 254    Pn   10:29:44.44   -0.18
                  Sn      30:02.66   -0.72
TRPA 140.0 111    Pn   10:29:44.44   -0.61
                  Sn      30:02.55   -1.61
```

1047.

```
 2019-12-04  time: 10:43:27.71 UTC  ML= 1.4
   lat: 47.869N  lon: 19.176E  h=  0.0 km
                 erh= 2.2km    erz= 401km
   nr=  6        gap=204       rms=0.26
   Locality: ősagárd
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  11.7 138    Pg   10:43:29.83    0.03
                  Sg      43:30.77   -0.67
A336  42.6 342    Pg   10:43:35.40    0.08
                  Sg      43:40.87   -0.39
PSZ   54.0  84    Pg   10:43:37.51    0.16
                  Sg      43:45.17    0.30
```

1048.

```
 2019-12-04  time: 13:23:40.54 UTC  ML= 1.7
   lat: 46.788N  lon: 17.285E  h=  0.0 km
                 erh= 2.8km    erz= 4.8km
   nr= 14        gap=103       rms=0.94
   Locality: Keszthely
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  46.7  24    Sg   13:23:55.13   -0.25
PKST  77.4  47    Pg   13:23:54.60    0.25
                  Sg      24:06.00    0.87
KOGS  87.8 245    Sg   13:24:09.44    0.99
KOVH  99.8 141    Pg   13:23:59.59    1.22
PKB4 106.0 108    Sg   13:24:13.99   -0.25
PKSG 107.5  51    Sg   13:24:14.83    0.13
PKB5 113.0 101    Sg   13:24:17.99    1.53
MORH 122.2 121    Pg   13:24:02.49    0.13
                  Sg      24:17.38   -1.99
PKSM 122.2 122    Pg   13:24:01.78   -0.59
                  Sg      24:17.38   -2.01
GROS 141.3 255    Sn   13:24:23.48   -0.95
CONA 166.3 320    Sn   13:24:29.23   -0.73
```

1049.

```
 2019-12-05  time:  8:42:04.88 UTC  ML= 1.2
   lat: 45.870N  lon: 18.419E  h=  0.0 km
                 erh= 1.9km    erz= 296km
   nr=  8        gap=254       rms=0.21
   Locality: Villány
   Comments: probably explosion
```

```
sta   dist azm  phase  hr mn  sec     res
PKSV  13.1 279    Pg    8:42:06.91   -0.32
                  Sg      42:09.17    0.11
KOVH  34.6 314    Pg    8:42:11.28    0.21
                  Sg      42:15.84   -0.05
PKSM  41.7  24    Pg    8:42:12.46    0.14
                  Sg      42:17.65   -0.47
MORH  42.1  24    Pg    8:42:12.45    0.04
                  Sg      42:18.39    0.11

1050.
```

```
 2019-12-05  time: 10:49:11.20 UTC  ML= 2.0
   lat: 48.858N  lon: 20.529E  h=  0.0 km
                 erh= 3.2km    erz= 4.0km
   nr= 14        gap=102       rms=0.85
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  41.8 184    Pg   10:49:18.75    0.08
                  Sg      49:24.14   -0.36
NIE   64.3 346    Pg   10:49:24.43    1.75
                  Sg      49:29.64   -1.99
STHS  81.1  40    Pg   10:49:25.78    0.10
                  Sg      49:35.61   -1.36
ABAH  81.6 140    Pg   10:49:25.68   -0.09
                  Sg      49:37.50    0.36
PSZ  114.6 204    Pg   10:49:31.75    0.09
                  Sg      49:46.62   -1.01
A336 132.7 238    Sn   10:49:52.18   -0.98
PENC 150.5 218    Sn   10:49:57.60    0.47
OJC  160.4 341    Pn   10:49:39.04    0.81
                  Sn      49:58.77   -0.54

1051.
```

```
 2019-12-05  time: 11:22:54.95 UTC  ML= 1.6
   lat: 48.490N  lon: 18.743E  h=  0.0 km
                 erh= 4.4km    erz= 7.6km
   nr= 10        gap=145       rms=0.88
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
A336  34.2 146    Pg   11:23:02.60    1.54
                  Sg      23:06.12    0.29
PENC  87.5 153    Sg   11:23:22.29   -0.45
PSZ  106.6 127    Pg   11:23:13.86   -0.12
                  Sg      23:29.33    0.51
MODS 109.3 263   ePg   11:23:14.40   -0.06
                 eSg      23:28.80   -0.88
PKSG 124.9 192    Sg   11:23:33.79   -0.85
KECS 128.8  90    Sg   11:23:33.80   -2.08
NIE  154.6  48    Sn   11:23:41.73   -0.04

1052.
```

```
 2019-12-05  time: 13:14:09.28 UTC  ML= 1.7
   lat: 47.911N  lon: 19.464E  h=  0.0 km
                 erh= 3.3km    erz= 5.1km
   nr= 11        gap=137       rms=0.97
   Locality: Szanda
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PENC  19.2 225    Pg   13:14:13.51    0.81
                  Sg      14:16.67    1.30
PSZ   32.2  89    Pg   13:14:14.74   -0.28
                  Sg      14:20.23    0.72
A336  49.8 316    Pg   13:14:17.79   -0.38
                  Sg      14:26.34    1.23
KECS  99.0  50    Sg   13:14:39.98   -0.78
PKSG  99.2 234    Sg   13:14:40.63   -0.18
PKST 129.7 236    Sg   13:14:48.93   -1.58
ABAH 139.0  72    Sn   13:14:53.00    0.36
MODS 170.7 288   eSn   13:14:56.60   -3.07

1053.
```

```
 2019-12-06  time:  7:50:05.22 UTC  ML= 0.7
   lat: 47.254N  lon: 18.347E  h=  0.0 km
                 erh= 1.1km    erz= 323km
   nr=  6        gap=157       rms=0.84
   Locality: Sárkeresztes
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKSG  15.7  12    Pg    7:50:07.43   -0.58
                  Sg      50:09.07   -1.13
PKST  23.7 271    Pg    7:50:09.31   -0.14
                  Sg      50:12.85    0.09
MORH 117.6 169    Sg    7:50:44.34    1.73
PKSM 118.0 169    Sg    7:50:43.79    1.06

1054.
```

```
 2019-12-06  time: 19:03:49.18 UTC  ML= 1.3
   lat: 47.906N  lon: 19.231E  h=  8.4 km
                 erh= 1.1km    erz= 1.3km
   nr= 14        gap= 81       rms=0.32
   Locality: Romhány
   Comments:

sta   dist azm  phase  hr mn  sec     res
PENC  13.4 163    Pg   19:03:51.94   -0.06
                  Sg      03:54.28    0.08
HU10  17.2 247    Pg   19:03:52.68    0.08
HU03  27.6  91    Pg   19:03:54.62    0.30
A336  40.3 335    Pg   19:03:56.71    0.19
                  Sg      04:01.77   -0.48
PSZ   49.6  88    Pg   19:03:58.15   -0.02
                  Sg      04:04.75   -0.43
A338  66.7 280    Sg   19:04:10.33   -0.22
SRO   69.4 261   eSg   19:04:11.70    0.30
PKSG  85.2 228    Pg   19:04:04.21   -0.25
KECS 113.2  55   ePn   19:04:09.40    0.14
                 eSn      04:22.40   -2.53*
PKST 115.2 231    Pn   19:04:09.14   -0.37
MODS 154.4 290   ePn   19:04:15.60    1.21

1055.
```

```
 2019-12-08  time:  7:51:35.92 UTC  ML= 1.8
   lat: 46.572N  lon: 17.403E  h= 14.8 km
                 erh= 2.3km    erz= 1.8km
   nr= 21        gap= 66       rms=0.74
   Locality: Marcali
   Comments:

sta   dist azm  phase  hr mn  sec     res
A263  10.2 319    PgD   7:51:38.50   -0.64
                  Sg      51:40.37   -1.28
A264  46.6 191    Pg    7:51:45.22    0.56
BEHE  49.5 257    Sg    7:51:52.21   -0.12
PKS9  67.2  89    Pg    7:51:48.40    0.20
                  Sg      51:58.93    1.15
MPLH  67.3   9    Pg    7:51:48.83    0.59
                  Sg      51:57.76   -0.08
KOVH  75.9 135    Pg    7:51:49.93    0.19
                  Sg      51:59.17   -1.34
PKST  90.3  32    P*    7:51:51.99   -0.02
                  S*      52:03.48   -1.09
PKB4  92.5  95    P*    7:51:53.58    1.23
                  S*      52:06.20    1.03
PKSV 100.3 139    S*    7:52:06.04   -1.24
PKB5 102.2  89    Sn    7:52:07.12   -0.63
PKSM 103.3 113    Pn    7:51:54.25    0.31
                  Sn      52:07.24   -0.76
```

```
MORH 103.3 113    Pn    7:51:54.45    0.51
                  Sn      52:07.27   -0.73
PKB1 108.9  77    Sn    7:52:08.15   -1.08

1056.
```

```
 2019-12-09  time: 10:05:02.62 UTC  ML= 1.7
   lat: 48.593N  lon: 20.751E  h=  0.0 km
                 erh= 1.7km    erz= 3.0km
   nr= 12        gap= 90       rms=0.53
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.1 238    Pg   10:05:06.89    0.15
                  Sg      05:09.30   -0.65
ABAH  49.0 132    Pg   10:05:11.11   -0.26
                  Sg      05:18.76    0.58
NIE   97.3 341    Pg   10:05:20.75    0.75
PSZ   98.3 220    Pg   10:05:20.41    0.23
                  Sg      05:34.13    0.25
STHS  98.5  21   ePg   10:05:20.10   -0.11
LANS 112.7 303   ePg   10:05:22.40   -0.35
                 eSg      05:36.50   -1.95
A336 135.7 253    Sn   10:05:44.78   -0.48
TRPA 142.2 111    Sn   10:05:44.54   -2.15

1057.
```

```
 2019-12-09  time: 12:16:52.32 UTC  ML= 1.5
   lat: 48.008N  lon: 20.134E  h=  0.0 km
                 erh= 9.2km    erz= ***km
   nr=  7        gap=172       rms=1.30
   Locality: Pétervására
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PSZ   20.5 241    Pg   12:16:55.69   -0.29
                  Sg      16:58.64   -0.19
KECS  58.9  26   eSg   12:17:08.10   -2.95
PENC  68.2 249    Sg   12:17:12.38   -1.61
A336  88.2 286    Pg   12:17:09.53    1.47
                  Sg      17:20.91    0.57
ABAH  88.2  69    Sg   12:17:21.42    1.05

1058.
```

```
 2019-12-10  time:  9:42:13.81 UTC  ML= 1.1
   lat: 46.155N  lon: 18.320E  h=  0.0 km
                 erh= 1.1km    erz= 266km
   nr=  9        gap=143       rms=0.20
   Locality: Vasas
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KOVH  18.6 246    Pg    9:42:17.29    0.16
                  Sg      42:19.29   -0.43
PKSM  25.6  76    Pg    9:42:18.25   -0.13
                  Sg      42:22.03    0.09
MORH  25.9  75    Pg    9:42:18.31   -0.12
                  Sg      42:21.84   -0.20
PKSV  30.1 190    Pg    9:42:19.27    0.08
                  Sg      42:23.51    0.13
PKB4  43.8  30    Sg    9:42:28.22    0.50

1059.
```

```
 2019-12-10  time: 10:36:32.95 UTC  ML= 1.9
   lat: 48.586N  lon: 20.760E  h=  0.0 km
                 erh= 1.1km    erz= 1.7km
   nr= 10        gap=128       rms=0.25
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  23.3 240    Pg   10:36:37.37    0.26
                  Sg      36:40.22   -0.14
ABAH  48.0 132    Pg   10:36:41.19   -0.33
                  Sg      36:48.31    0.11
PSZ   98.2 221    Pg   10:36:50.55    0.05
                  Sg      37:04.11   -0.07
STHS  98.9  21   ePg   10:36:50.80    0.19
                 eSg      37:03.90   -0.48
A336 136.2 253    Pn   10:36:57.20    0.23
                  Sn      37:15.13   -0.57

1060.
```

```
 2019-12-10  time: 15:21:59.27 UTC  ML= 1.8
   lat: 48.171N  lon: 19.050E  h= 12.3 km
                 erh= 1.4km    erz= 1.1km
   nr= 22        gap= 56       rms=0.50
   Locality: Slovakia
   Comments:

sta   dist azm  phase  hr mn  sec     res
A336   7.9 331    Pg   15:22:01.78   -0.11
                  Sg      22:03.00   -0.93
HU10  36.3 184    Pg   15:22:06.41    0.29
                  Sg      22:10.68   -0.79
PENC  45.7 158    Pg   15:22:08.40    0.67
                  Sg      22:14.02   -0.30
HU03  50.6 126    Pg   15:22:08.42   -0.16
A338  54.8 252    Pg   15:22:09.62    0.32
                  Sg      22:16.69   -0.44
SRO   67.9 234    Pg   15:22:11.68    0.09
PSZ   68.9 114    Pg   15:22:12.37    0.59
                  Sg      22:21.02   -0.51
PKSG  99.8 210    P*   15:22:17.16    0.12
HU02 109.9  93    Pn   15:22:18.82    0.39
                  Sn      22:32.27   -1.10
KECS 111.9  72    Sn   15:22:33.11   -0.72
LANS 113.2  16    Pn   15:22:19.34    0.50
                  Sn      22:33.29   -0.81
JOS  116.2  72    Pn   15:22:19.40    0.19
                  Sn      22:33.49   -1.28
MODS 133.5 280   ePn   15:22:21.70    0.32
                 eSn      22:37.90   -0.72

1061.
```

```
 2019-12-11  time:  8:20:02.53 UTC  ML= 1.5
   lat: 47.251N  lon: 17.637E  h=  0.0 km
                 erh= 1.9km    erz= 2.5km
   nr= 13        gap= 90       rms=0.72
   Locality: Németbánya
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
MPLH  11.6 219    Pg    8:20:05.69    1.09
                  Sg      20:05.60   -0.62
EGYH  29.6 309    Sg    8:20:11.95    0.02
TIH   43.6 153    Sg    8:20:16.17   -0.21
PKSG  59.1  75    Sg    8:20:21.39    0.07
SRO   80.7  39    Sg    8:20:27.84   -0.33
SOP   94.5 301    Sg    8:20:31.85   -0.71
KOVH 134.0 165    Sn    8:20:45.21    0.42
PENC 137.7  64    Sn    8:20:45.69    0.09
MORH 138.4 146    Sn    8:20:44.12   -1.65
PKSM 138.7 146    Sn    8:20:44.94   -0.89
PKSV 158.6 163    Sn    8:20:50.98    0.73
PSZ  185.3  66    Sn    8:20:56.95    0.76
```

1062.

2019-12-11 time: 10:08:38.32 UTC ML= 1.7
lat: 47.851N lon: 19.122E h= 0.0 km
erh= 2.4km erz= 347km
nr= 6 gap=228 rms=0.21
Locality: Szendehely
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	13.7	120	Pg	10:08:40.73	-0.03
			Sg	08:42.11	-0.56
A336	43.4	348	Pg	10:08:46.13	0.06
			Sg	08:51.86	-0.26
PSZ	58.2	83	Pg	10:08:48.90	0.19
			Sg	08:57.02	0.20

1063.

2019-12-11 time: 10:13:03.38 UTC ML= 1.0
lat: 47.738N lon: 19.981E h= 0.0 km
erh= ---km erz= ---km
nr= 4 gap=220 rms=0.48
Locality: Karácsond
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PSZ	21.0	342	Pg	10:13:07.73	0.59
			Sg	13:09.65	-0.42
PENC	52.8	276	Sg	10:13:19.80	-0.36
ABAH	112.5	57	Sg	10:13:38.74	-0.40

1064.

2019-12-11 time: 11:38:17.69 UTC ML= 1.9
lat: 48.176N lon: 19.846E h= 0.0 km
erh= 4.1km erz= 6.3km
nr= 13 gap=163 rms=0.75
Locality: Somoskő
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PSZ	28.8	173	Pg	11:38:23.48	0.64
			Sg	38:27.52	0.66
HU03	35.4	211	Sg	11:38:27.82	-1.11
HU02	50.9	97	Pg	11:38:27.09	0.31
			Sg	38:33.44	-0.43
KECS	58.5	54	Pg	11:38:28.31	0.17
			Sg	38:36.17	-0.12
JOS	62.6	55	Pg	11:38:28.50	-0.36
ABAH	104.4	83	Pg	11:38:37.23	0.89
			Sg	38:49.20	-1.68
HU05	119.0	126	Pg	11:38:38.02	-0.92
NIE	142.5	14	Pn	11:38:43.44	0.95
			Sn	39:00.64	-1.19

1065.

2019-12-12 time: 7:40:47.10 UTC ML= 1.2
lat: 47.299N lon: 17.673E h= 0.0 km
erh= 1.2km erz= 341km
nr= 8 gap=142 rms=0.24
Locality: Bakonykoppány
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
MPLH	17.5	215	Pg	7:40:50.08	-0.14
			Sg	40:52.78	0.12
PKST	27.7	99	Pg	7:40:52.14	0.09
			Sg	40:56.50	0.59
EGYH	28.9	297	Pg	7:40:52.16	-0.10
			Sg	40:56.67	0.39
PKSG	55.2	79	Pg	7:40:56.87	-0.09
			Sg	41:04.17	-0.49

1066.

2019-12-12 time: 9:44:57.89 UTC ML= 1.3
lat: 48.000N lon: 20.364E h= 0.0 km
erh= 1.3km erz= 247km
nr= 9 gap=192 rms=0.19
Locality: Szarvaskő
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
HU02	18.2	41	Pg	9:45:01.19	0.06
			Sg	45:04.20	0.54
PSZ	36.2	256	Pg	9:45:04.28	-0.07
			Sg	45:09.54	0.15
KECS	54.5	10	Pg	9:45:07.80	0.18
			Sg	45:15.12	-0.09
JOS	56.7	13	Pg	9:45:07.95	-0.06
			Sg	45:15.58	-0.33
ABAH	73.0	63	Sg	9:45:20.83	-0.27

1067.

2019-12-12 time: 10:21:25.87 UTC ML= 1.6
lat: 48.573N lon: 20.726E h= 0.0 km
erh= 2.7km erz= 950km
nr= 11 gap=107 rms=0.77
Locality: Komjáti
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	20.4	241	Pg	10:21:29.67	0.15
			Sg	21:32.11	-0.25
ABAH	48.9	129	Pg	10:21:35.34	0.73
			Sg	21:40.96	-0.46
PSZ	95.5	220	Pg	10:21:43.25	0.32
			Sg	21:55.88	-0.35
NIE	98.8	342	Pg	10:21:44.63	1.12
STHS	101.1	22	ePg	10:21:43.00	-0.93
			eSg	21:54.60	-3.42*
LANS	112.5	305	ePg	10:21:45.20	-0.76
			eSg	21:59.30	-2.32

1068.

2019-12-12 time: 10:25:00.98 UTC ML= 1.9
lat: 47.689N lon: 18.582E h= 0.0 km
erh= 2.6km erz= 3.2km
nr= 18 gap=127 rms=1.16
Locality: Nagysáp
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
SRO	24.4	304	Pg	10:25:05.19	-0.16
			Sg	25:07.07	-1.68
PKSG	36.0	204	Pg	10:25:08.14	0.72
			Sg	25:12.95	0.51
PKST	63.2	221	Pg	10:25:12.72	0.45
			Sg	25:19.89	-1.17
MPLH	97.5	234	Pg	10:25:19.94	1.54
			Sg	25:33.02	1.03
EGYH	98.8	252	Pg	10:25:19.89	1.25
			Sg	25:33.43	1.03
PSZ	101.6	75	Sg	10:25:34.28	1.01
MODS	123.6	308	ePg	10:25:22.50	-0.55
			eSg	25:37.20	-3.06
PKB4	132.6	179	Sn	10:25:40.97	-1.96
MORH	163.8	178	Pn	10:25:28.22	-0.23
			Sn	25:47.66	-2.21
PKSM	164.3	178	Pn	10:25:28.32	-0.18
			Sn	25:47.35	-2.62

1069.

2019-12-12 time: 10:34:37.33 UTC ML= 1.8
lat: 48.353N lon: 19.878E h= 10.0 km
erh= 1.8km erz= 3.2km
nr= 16 gap= 83 rms=0.60
Locality: Slovakia
Comments:

sta	dist	azm	phase	hr mn sec	res
KECS	47.2	72	Pg	10:34:46.21	0.26
			Sg	34:52.93	0.25
PSZ	48.3	179	Pg	10:34:46.11	-0.03
			Sg	34:52.52	-0.49
JOS	51.4	72	Pg	10:34:46.61	-0.08
			Sg	34:53.65	-0.34
HU03	54.0	203	Pg	10:34:47.32	0.17
			Sg	34:54.58	-0.22
HU02	54.4	118	Pg	10:34:47.51	0.30
			Sg	34:54.47	-0.45
A336	66.6	259	Pg	10:34:49.97	0.61
			Sg	34:58.05	-0.69
LANS	93.7	341	Sg	10:35:05.73	-1.57
ABAH	101.1	94	Sg	10:35:09.19	-0.44
NIE	122.8	15	Pn	10:35:00.23	1.83
			Sn	35:13.97	-0.86

1070.

2019-12-12 time: 12:02:31.73 UTC ML= 1.6
lat: 46.121N lon: 18.063E h= 0.0 km
erh= 1.5km erz= 459km
nr= 16 gap=191 rms=0.40
Locality: Bükkösd
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	4.6	142	Pg	12:02:32.60	0.05
			Sg	02:33.74	0.55
PKSV	29.7	150	Pg	12:02:37.02	-0.01
			Sg	02:40.93	-0.24
PKSM	45.8	77	Pg	12:02:39.93	0.03
			Sg	02:45.84	-0.43
MORH	46.1	77	Pg	12:02:39.89	-0.07
			Sg	02:46.20	-0.17
PKS9	54.4	18	Pg	12:02:41.62	0.18
			Sg	02:49.33	0.32
PKB4	58.9	45	Pg	12:02:41.96	-0.29
			Sg	02:49.59	-0.87
PKB5	73.8	44	Pg	12:02:46.07	1.16
MPLH	123.3	341	Pg	12:02:53.71	-0.04
			Sg	03:09.11	-1.82
PKST	126.5	359	Pg	12:02:54.12	-0.20

1071.

2019-12-12 time: 12:14:58.53 UTC ML= 1.5
lat: 46.114N lon: 18.051E h= 0.0 km
erh= 1.2km erz= 221km
nr= 8 gap=251 rms=0.16
Locality: Bükkösd
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	4.8	127	Pg	12:14:59.50	0.12
			Sg	15:00.68	0.64
PKSM	46.9	77	Pg	12:15:06.78	-0.12
			Sg	15:13.33	-0.10
MORH	47.2	76	Pg	12:15:06.81	-0.15
			Sg	15:13.50	-0.03
PKS9	55.4	18	Pg	12:15:08.42	0.00
			Sg	15:16.39	0.25

1072.

2019-12-12 time: 13:14:55.85 UTC ML= 1.7
lat: 47.691N lon: 20.292E h= 0.8 km
erh= 3.6km erz=59.7km
nr= 12 gap=160 rms=0.69
Locality: Erdőtelek
Comments:

sta	dist	azm	phase	hr mn sec	res
HU23	7.0	207	PgD	13:14:56.76	-0.34
PSZ	39.1	310	Pg	13:15:02.94	0.11
			Sg	15:08.57	0.29
HU02	51.0	20	Pg	13:15:04.62	-0.34
			Sg	15:12.15	0.09
HU03	57.0	294	Sg	13:15:13.85	-0.14
PENC	76.6	278	Pg	13:15:10.71	1.17
			Sg	15:19.75	-0.46
JOS	91.3	12	Pg	13:15:12.70	0.53
HU10	97.0	280	Sg	13:15:24.94	-1.75
ABAH	97.6	46	Pg	13:15:13.56	0.28
			Sg	15:25.11	-1.76

1073.

2019-12-13 time: 11:33:53.50 UTC ML= 1.4
lat: 47.528N lon: 18.441E h= 0.0 km
erh= 3.0km erz= 5.1km
nr= 12 gap= 91 rms=1.07
Locality: Vértessomló
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	15.6	194	Pg	11:33:56.15	-0.14
			Sg	33:57.97	-0.50
SRO	33.1	343	ePg	11:34:01.20	1.78
			eSg	34:04.60	0.57
PKST	42.9	226	Sg	11:34:08.43	1.29
BUD	44.2	96	Sg	11:34:08.16	0.62
A336	88.8	28	Sg	11:34:20.26	-1.46
PSZ	117.3	68	Sg	11:34:31.09	0.29
MODS	128.1	317	ePg	11:34:15.90	-0.47
			eSg	34:31.50	-2.71
MORH	146.7	174	Sn	11:34:38.44	-0.14
PKSM	147.1	174	Sn	11:34:36.83	-1.85

1074.

2019-12-13 time: 16:57:44.22 UTC ML= 2.9
lat: 47.436N lon: 18.842E h= 9.2 km
erh= 0.8km erz= 0.8km
nr= 72 gap= 28 rms=0.57
Locality: Sóskút
Comments: felt 4 EMS

sta	dist	azm	phase	hr mn sec	res
PBUD	13.2	76	Pg	16:57:47.40	0.31
			Sg	57:49.61	0.27
BUD	14.7	69	PgD	16:57:46.52	-0.79
			Sg	57:48.53	-1.19
A271	31.3	181	Pg	16:57:50.76	0.72
			Sg	57:54.13	-0.45
PKSG	34.4	262	PgD	16:57:50.94	0.36
			Sg	57:54.83	-0.72
HU09	41.3	303	Pg	16:57:52.21	0.43
HU10	47.4	16	Pg	16:57:53.00	0.16
			Sg	57:58.51	-1.05
PKS7	49.5	151	PgD	16:57:53.80	0.59
			Sg	58:00.70	0.48
PENC	51.4	40	Pg	16:57:53.24	-0.31
			Sg	57:59.48	-1.34
SRO	57.8	317	Pg	16:57:55.19	0.52
			Sg	58:01.49	-1.33
A267	60.9	207	PgD	16:57:55.37	0.15
PKST	64.1	252	PgU	16:57:55.60	-0.19

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                    Sg      58:02.64   -2.18
HU08  69.3 270      Pg   16:57:56.65   -0.05
A338  74.1 330      Pg   16:57:58.42    0.86
                    Sg      58:08.02    0.06
HU03  77.1  48      PgD  16:57:57.84   -0.24
A272  77.5 173      PgD  16:57:58.71    0.56
A336  89.4   8      PgD  16:57:59.97   -0.30
PKB2  90.0 160      Pg   16:58:00.61    0.24
TIH   93.4 230      PgU  16:58:00.44   -0.55
PKB5  93.9 185      PgD  16:58:01.18    0.12
PSZ   95.5  56      PgD  16:58:00.71   -0.64
                    Sg      58:12.22   -2.49*
PKSN  98.1 128      Pg   16:58:02.51    0.69
MPLH 102.9 253      PgD  16:58:02.89    0.23
PKS9 103.7 204      Pg   16:58:02.59   -0.21
PKB4 106.0 190      Pg   16:58:02.61   -0.61
PKS6 108.0 149      P*   16:58:03.27   -0.26
HU23 108.3  78      P*   16:58:03.23   -0.36
BSZH 108.7  98      Pn   16:58:04.51    0.88
PKS2 108.7 165      Pn   16:58:03.35   -0.28
A266 110.4 203      Pn   16:58:03.37   -0.47
EGYH 114.0 269      Pn   16:58:05.36    1.07
PKB3 115.7 167      Pn   16:58:04.97    0.46
A337 119.5 319      Pn   16:58:05.75    0.77
HU22 126.0 170      Pn   16:58:05.36   -0.43
MORH 136.5 186      Pn   16:58:06.21   -0.89
PKSM 137.0 186      Pn   16:58:06.22   -0.94
A265 137.8 215      Pn   16:58:07.11   -0.16
HU21 140.7 151      Pn   16:58:07.54   -0.09
HU02 147.4  59      Pn   16:58:08.71    0.25
MODS 156.7 312     ePn   16:58:09.90    0.28
SMOL 159.7 319      Pn   16:58:10.31    0.32
KOVH 160.2 201      Pn   16:58:09.14   -0.92
KECS 169.2  47     ePn   16:58:12.60    1.42
                   eSn      58:32.50    0.30
JOS  173.1  47      Pn   16:58:11.75    0.09
SOP  174.1 279      Pn   16:58:12.01    0.22
A264 184.9 220      Pn   16:58:12.88   -0.25
RONA 193.8 279      Pn   16:58:14.38    0.13
                    Sn      58:36.50   -1.17
LANS 196.2  14     ePn   16:58:15.00    0.45
                   eSn      58:37.80   -0.40
ABAH 203.3  62      Pn   16:58:15.79    0.37
CONA 230.4 284      Pn   16:58:18.98    0.17
SIRR 251.1 121      PnC  16:58:21.18   -0.21
ARSA 251.7 265      Pn   16:58:22.30    0.84
VRAC 266.7 321      PnC  16:58:24.35    1.02
GROS 276.5 247      Pn   16:58:24.71    0.16
                    Sn      58:54.53   -1.48
MORC 277.4 340      PnD  16:58:26.17    1.50
                    Sn      58:55.50   -0.72
STHS 283.0  39     ePn   16:58:27.30    1.93
BZS  293.6 134      Pn   16:58:26.41   -0.28
SOKA 301.5 254      Sn   16:58:59.88   -1.68*
DRGR 302.3 104      Pn   16:58:28.45    0.68*
KRLC 330.3 333     ePn   16:58:33.00    1.73*
                   eSn      59:07.70   -0.26*
MARR 335.7 105      PnD  16:58:32.64    0.70*
                    Sn      59:07.80   -1.37*
OBKA 342.6 252      Sn   16:59:10.00   -0.69*
DPC  373.1 330     ePn   16:58:37.80    1.20*
GZR  378.2 127      PnD  16:58:36.96   -0.28*
HERR 396.1 136      PnD  16:58:40.02    0.55*
KHC  433.8 296     ePn   16:58:44.80    0.63*
                   eSn      59:29.20   -1.73*
BOVS 478.0 152      PnD  16:58:49.44   -0.24*
BURA 480.5  88      PnD  16:58:49.64   -0.35*
```

1075.

```
 2019-12-16  time: 10:43:54.36 UTC  ML= 1.2
   lat: 47.095N  lon: 17.947E  h=  0.0 km
                 erh= 2.8km    erz= 403km
   nr=  8        gap=206       rms=0.29
   Locality: Kádárta
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
PKST  19.4  20    Pg   10:43:57.64   -0.18
                  Sg      44:00.24   -0.29
PKSG  47.1  45    Sg   10:44:09.61    0.29
MORH 111.3 151    Pg   10:44:14.54    0.30
                  Sg      44:29.76    0.01
PKSM 111.6 152    Pg   10:44:14.59    0.29
                  Sg      44:29.30   -0.54
KOVH 112.5 174    Sg   10:44:29.81   -0.31
```

1076.

```
 2019-12-16  time: 12:04:16.30 UTC  ML= 1.5
   lat: 48.593N  lon: 20.894E  h=  0.0 km
                 erh= 2.8km    erz= 5.9km
   nr= 10        gap=127       rms=0.80
   Locality: Slovakia
   Comments: probably explosion

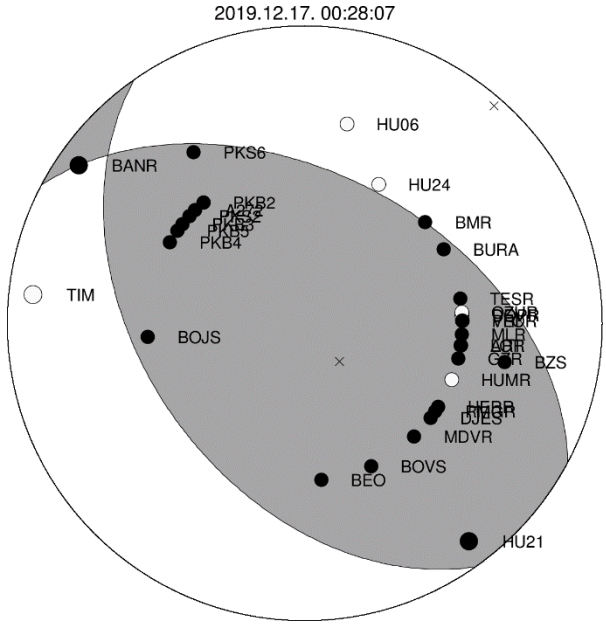
sta   dist azm  phase  hr mn  sec     res
KECS  32.5 248    Pg   12:04:22.68    0.57
                  Sg      04:25.45   -1.19
ABAH  41.8 142    Pg   12:04:24.15    0.40
                  Sg      04:29.50   -0.07
STHS  95.1  16   ePg   12:04:32.50   -0.78
                 eSg      04:44.90   -1.63
NIE  101.2 335    Pg   12:04:35.37    1.00
                  Sg      04:47.43   -1.04
PSZ  105.5 225    Sg   12:04:49.31   -0.54
A336 145.9 254    Sn   12:05:02.04    0.84
```

1077.

```
 2019-12-17  time:  0:28:07.47 UTC  ML= 3.6
   lat: 45.800N  lon: 20.299E  h= 11.1 km
                 erh= 1.1km    erz= 1.1km
   nr= 70        gap= 66       rms=0.59
   Locality: Serbia
   Comments:

sta   dist azm  phase  hr mn  sec     res
TIM   72.0  96    PgD   0:28:20.58    0.10
                  Sg      28:30.60   -0.04
HU21  73.2 323    PgU   0:28:21.38    0.68
                  Sg      28:30.78   -0.24
BANR  80.0 125    PgC   0:28:22.22    0.32
                  Sg      28:33.10   -0.06
FRGS  83.2 207    Pg    0:28:22.38   -0.07
                  Sg      28:33.08   -1.06
HU06 103.5  12    P*D   0:28:25.49   -0.43
                  S*      28:37.91   -2.39
BZS  104.6 101    P*U   0:28:25.39   -0.69
                  S*      28:37.76   -2.84
PKS6 105.5 327    P*U   0:28:26.34    0.12
                  S*      28:39.34   -1.51
HU22 107.4 303    Pn    0:28:26.72    0.25
BEO  109.4 174    PnU   0:28:26.76    0.04
                  Sn      28:40.47   -1.26
PKB3 110.0 309    PnU   0:28:26.85    0.05
                  Sn      28:40.42   -1.45
PKS2 113.9 313    PnU   0:28:27.50    0.22
PKSN 126.4 345    Pn    0:28:29.43    0.58
                  Sn      28:45.64    0.12
PKB2 126.9 320    PnU   0:28:28.68   -0.22
                  Sn      28:44.49   -1.13
MORH 136.3 290    Pn    0:28:29.98   -0.09
```

			Sn	28:48.25	0.55
PKSM	136.4	290	Pn	0:28:30.00	-0.08
			Sn	28:47.31	-0.41
HU24	139.8	28	PnD	0:28:30.09	-0.43
A272	147.0	316	PnU	0:28:31.44	0.03
PKB5	149.6	306	PnU	0:28:31.70	-0.03
			Sn	28:53.06	2.40
PKB4	152.2	301	PnU	0:28:31.97	-0.08
			Sn	28:50.92	-0.31
MDVR	158.4	136	PnC	0:28:32.84	0.01
PKSV	159.3	274	Pn	0:28:33.01	0.06
PKS7	164.0	328	Sn	0:28:55.99	2.14
KOVH	173.6	281	Pn	0:28:34.45	-0.27
			Sn	28:58.90	2.93*
PKS9	178.9	299	Pn	0:28:35.51	0.13
			Sn	29:00.68	3.53*
A271	188.0	323	Pn	0:28:36.92	0.40
A267	189.2	312	Pn	0:28:36.94	0.27
A273	193.3	274	Pn	0:28:37.79	0.61
HERR	194.8	122	PnC	0:28:37.84	0.47
			Sn	29:01.40	0.71
GZR	198.5	103	PnC	0:28:38.02	0.19
			Sn	29:03.00	1.49
DEV	202.5	87	PnC	0:28:38.60	0.27
A265	205.7	290	Pn	0:28:39.26	0.54
BUD	211.1	332	Pn	0:28:39.24	-0.17
LTVH	214.7	35	Pn	0:28:39.11	-0.74
DRGR	216.1	59	Pn	0:28:39.29	-0.73
DJES	217.7	127	PnC	0:28:39.91	-0.31
TIH	222.0	303	Pn	0:28:40.96	0.20
BBLS	225.9	198	Pn	0:28:42.26	1.02
RMGR	226.4	124	PnC	0:28:42.69	1.38
PKSG	229.6	320	Pn	0:28:41.71	0.00
PENC	234.6	341	Pn	0:28:42.62	0.29
PSZ	237.5	353	Pn	0:28:42.15	-0.55
MARR	238.3	66	Sn	0:29:12.40	2.06
HU03	239.9	347	Pn	0:28:42.99	-0.01
HU10	247.5	337	Pn	0:28:44.32	0.38
A263	248.5	292	Pn	0:28:44.38	0.31
HU09	251.5	324	Pn	0:28:45.14	0.70
HU08	256.9	315	Pn	0:28:45.70	0.58
SRE	260.9	119	Sn	0:29:16.10	0.75
BOVS	265.1	155	PnC	0:28:46.23	0.10
HU07	272.0	27	Pn	0:28:46.00	-0.99
LOT	273.4	98	PnD	0:28:47.89	0.72
A261	274.2	298	Pn	0:28:47.93	0.66
KECS	298.7	3	ePn	0:29:02.70	12.38*
			eSn	29:11.20	-12.54*
BMR	321.1	50	PnC	0:28:53.33	0.22*
ARR	341.7	98	PnC	0:28:55.82	0.14*
MODS	366.8	321	ePn	0:28:58.90	0.08*
			eSn	29:56.50	17.63*
RONA	371.7	305	Pn	0:28:59.90	0.47*
CRES	376.4	270	Pn	0:28:59.76	-0.25*
LANS	377.8	350	ePn	0:29:04.60	4.42*
			eSn	29:30.40	-10.90*
HUMR	394.2	111	PnD	0:29:03.06	0.82*
BOJS	394.8	265	iPnC	0:28:51.00	-11.31*
			iSn	28:53.02	-52.06*
DOPR	395.5	87	PnD	0:29:03.99	1.59*
ARSA	400.4	294	Pn	0:29:03.27	0.27*
STHS	408.4	10	ePn	0:29:04.00	0.00*
PERS	410.6	283	Pn	0:29:04.85	0.58*
CONA	412.9	305	Pn	0:29:05.12	0.55*
SOKA	417.8	284	Pn	0:29:04.88	-0.29*
			Sn	29:49.67	-0.51*
OZUR	426.7	86	PnD	0:29:07.21	0.92*
BURA	426.8	62	PnC	0:29:06.69	0.40*
MLR	441.5	94	PnC	0:29:09.39	1.26*
OBKA	451.2	280	Pn	0:29:10.02	0.68*
			Sn	30:11.76	14.17*
OKC	477.0	340	ePn	0:29:13.70	1.14*
PLOR	493.5	89	PnD	0:29:15.31	0.69*
TESR	496.8	81	PnC	0:29:16.31	1.28*
VRI	499.5	89	PnC	0:29:16.56	1.20*
MOA	513.7	296	Pn	0:29:17.06	-0.07*
			Sn	30:09.64	-1.83*
TREC	531.3	317	eSn	0:30:12.00	-3.37*
KRLC	543.2	331	ePn	0:29:24.70	3.89*
BIOA	550.8	292	Pn	0:29:21.82	0.07*
			Sn	30:20.15	0.46*
KBA	553.1	285	Pn	0:29:21.54	-0.50*
			Sn	30:19.61	-0.59*
DPC	586.4	330	ePn	0:29:29.50	3.30*
ABTA	609.4	280	Pn	0:29:31.18	2.11*
			Sn	30:33.31	0.60*
KHC	627.7	306	ePn	0:29:34.70	3.36*
			eSn	30:34.10	-2.66*
WTTA	684.3	284	Pn	0:29:40.81	2.41*
			Sn	30:48.60	-0.73*



1078.

2019-12-17 time: 7:24:35.06 UTC ML= 0.6
lat: 47.285N lon: 18.367E h= 0.0 km
erh= 2.0km erz= 469km
nr= 5 gap=162 rms=0.22
Locality: Magyaralmás
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	12.0	8	Pg	7:24:36.93	-0.28
			Sg	24:39.26	0.37
PKST	25.4	264	Pg	7:24:39.56	-0.02
			Sg	24:43.30	0.18
PKSM	121.1	170	Sg	7:25:13.62	0.08

1079.

2019-12-17 time: 12:26:15.84 UTC ML= 1.6
lat: 48.574N lon: 19.249E h= 0.0 km
erh= 7.0km erz= 994km
nr= 6 gap=250 rms=0.61
Locality: Slovakia
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
A336	42.2	206	Sg	12:26:28.35	-0.89
PENC	87.2	178	Sg	12:26:43.15	-0.39
PSZ	87.3	147	Pg	12:26:31.85	0.43
			Sg	26:44.54	0.97
KECS	91.9	96	Pg	12:26:32.39	0.15
			Sg	26:44.18	-0.86

1080.

```
 2019-12-18  time: 10:07:01.56 UTC  ML= 1.8
   lat: 48.582N  lon: 20.783E  h=  0.0 km
                 erh= 2.0km    erz= 1.8km
   nr=  8        gap=240       rms=0.20
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.5 243    Pg   10:07:05.83   -0.11
                  Sg      07:09.59    0.23
ABAH  46.4 133    Pg   10:07:10.10    0.25
                  Sg      07:15.86   -0.45
PSZ   99.0 222    Pg   10:07:19.35    0.12
                  Sg      07:32.80   -0.22
A336 137.6 254    Pn   10:07:25.66   -0.10
A338 191.0 251    Sn   10:07:56.45   -0.02
```

1081.

```
 2019-12-19  time:  8:52:15.06 UTC  ML= 1.7
   lat: 48.585N  lon: 20.779E  h=  0.0 km
                 erh= 1.5km    erz= 2.2km
   nr= 11        gap=127       rms=0.40
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  24.4 242    Pg    8:52:19.91    0.49
                  Sg      52:21.97   -0.86
ABAH  46.9 133    Pg    8:52:23.65    0.23
                  Sg      52:29.66   -0.29
STHS  98.5  20   ePg    8:52:32.40   -0.25
                 eSg      52:46.30   -0.08
PSZ   99.1 222    Pg    8:52:32.84    0.09
                  Sg      52:46.38   -0.16
A336 137.5 253    Sn    8:52:57.73   -0.36
TRPA 139.9 111    Pn    8:52:39.91    0.37
                  Sn      52:56.81   -1.82
```

1082.

```
 2019-12-20  time: 10:11:22.68 UTC  ML= 1.5
   lat: 48.563N  lon: 20.765E  h=  0.0 km
                 erh= 2.3km    erz= 4.8km
   nr= 11        gap=110       rms=0.71
   Locality: Tornanádaska
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  22.5 247    Pg   10:11:26.76    0.07
                  Sg      11:29.43   -0.39
ABAH  46.0 130    Pg   10:11:30.68   -0.21
                  Sg      11:37.45    0.16
PSZ   96.5 222    Pg   10:11:40.43    0.51
                  Sg      11:53.53    0.17
NIE  100.8 341    Pg   10:11:41.98    1.31
                  Sg      11:53.58   -1.13
STHS 101.2  20   ePg   10:11:40.00   -0.75
                 eSg      11:51.30   -3.55*
A336 135.8 254    Sn   10:12:04.32   -1.02
```

1083.

```
 2019-12-20  time: 12:21:57.25 UTC  ML= 1.8
   lat: 48.780N  lon: 20.834E  h=  0.0 km
                 erh= 6.6km    erz= ***km
   nr=  6        gap=179       rms=0.92
   Locality: Slovakia
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
KECS  41.8 218    Pg   12:22:05.73    1.02
                  Sg      22:09.97   -0.56
ABAH  61.6 151    Pg   12:22:08.94    0.70
                  Sg      22:15.22   -1.60
NIE   80.6 332    Sg   12:22:22.07   -0.81
PSZ  118.4 216    Sg   12:22:34.22   -0.67
```

1084.

```
 2019-12-21  time: 14:51:47.50 UTC  ML= 2.1
   lat: 48.637N  lon: 22.366E  h=  1.9 km
                 erh= 4.0km    erz= 3.4km
   nr= 11        gap=211       rms=0.83
   Locality: Ukraine
   Comments:

sta   dist azm  phase  hr mn  sec     res
TRPA  57.8 167    Pg   14:51:58.08    0.25
                  Sg      52:05.52   -0.36
ABAH  91.6 246    Pg   14:52:04.00    0.15
                  Sg      52:16.65    0.04
STHS 119.4 317   ePg   14:52:07.50   -1.33
                 eSg      52:24.30   -1.16
NIE  173.5 300    Pn   14:52:17.65    1.73
                  Sn      52:38.46    0.37
PSZ  200.1 246    Sn   14:52:42.89   -1.11
DRGR 206.8 173    Pn   14:52:19.68   -0.39
                  Sn      52:46.88    1.40
```

1085.

```
 2019-12-23  time:  6:56:30.77 UTC  ML= 2.0
   lat: 46.036N  lon: 22.810E  h=  0.0 km
                 erh= 1.4km    erz= 2.0km
   nr= 27        gap= 69       rms=0.74
   Locality: Romania
   Comments: probably explosion

sta   dist azm  phase  hr mn  sec     res
DEV   18.5 157    PgD   6:56:34.52    0.45
                  Sg      56:37.20    0.55
GZR   71.5 182    PgC   6:56:43.95    0.40
                  Sg      56:53.30   -0.21
MARR  75.0  18    PgC   6:56:44.38    0.22
                  Sg      56:53.80   -0.80
DRGR  84.3 355    Pg    6:56:46.01    0.18
                  Sg      56:56.05   -1.52
SIRR  92.5 286    PgC   6:56:47.65    0.36
                  Sg      56:59.90   -0.28
CJR   96.6  39    PgD   6:56:49.14    1.11
                  Sg      57:01.10   -0.39
LOT   99.3 131    PgC   6:56:48.94    0.44
                  Sg      57:01.80   -0.53
BZS  103.8 243    Pg    6:56:49.73    0.42
                  Sg      57:02.87   -0.90
MDB  122.0  84    Sg    6:57:07.90   -1.66
MESR 124.2   5    Sg    6:57:09.50   -0.76
HERR 132.1 194    PnD   6:56:54.29    0.02
                  Sn      57:10.80   -1.80
ARR  160.3 118    PnC   6:56:58.10    0.31
                  Sn      57:17.80   -1.07
MDVR 163.8 212    Sn    6:57:19.30   -0.35
ARCR 166.2  45    Pn    6:57:00.36    1.84
                  Sn      57:20.63    0.46
DOPR 199.9  92    Sn    6:57:27.60   -0.06
MLR  251.3 104    Sn    6:57:38.20   -0.87
```

1086.

```
 2019-12-27  time:  0:03:00.63 UTC  ML= 1.8
   lat: 45.901N  lon: 16.042E  h=  9.0 km
                 erh= 1.9km    erz= 1.4km
   nr= 20        gap=114       rms=0.65
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PTJ    6.5 269    PgD   0:03:02.50   -0.11
                  Sg      03:04.23    0.07
ZAG    8.8 205    PgD   0:03:02.66   -0.22
                  Sg      03:03.70   -0.94
CRES  46.2 260    Pg    0:03:09.59    0.56
                  Sg      03:15.35   -0.23
KOGS  62.9  15    Pg    0:03:13.62    1.64
                  Sg      03:20.16   -0.67
GROS  74.9 326    Pg    0:03:14.75    0.65
                  Sg      03:24.09   -0.52
BEHE  84.9  42    Pg    0:03:15.69   -0.19
                  Sg      03:26.63   -1.15
PERS 108.4 319    P*    0:03:20.50    0.48
SOKA 116.2 318    Pn    0:03:20.78   -0.22
                  Sn      03:35.32   -1.56
OBKA 133.6 300    Sn    0:03:40.67   -0.07
KOVH 160.8  83    Pn    0:03:26.99    0.43
                  Sn      03:46.62   -0.17
PKSV 171.6  90    Pn    0:03:28.20    0.30
                  Sn      03:48.15   -1.03
```

1087.

```
 2019-12-27  time:  1:01:13.88 UTC  ML= 1.0
   lat: 45.726N  lon: 18.491E  h=  0.4 km
                 erh= 1.5km    erz=96.5km
   nr=  8        gap=302       rms=0.14
   Locality: Croatia
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSV  25.9 314    Pg    1:01:18.41   -0.10
                  Sg      01:21.97   -0.14
KOVH  50.4 323    Pg    1:01:23.20    0.31
                  Sg      01:29.88   -0.03
PKSM  55.2  12    Pg    1:01:23.71   -0.03
                  Sg      01:31.52    0.09
MORH  55.7  12    Pg    1:01:23.73   -0.10
                  Sg      01:31.62    0.04
```

1088.

```
 2019-12-29  time:  4:33:55.75 UTC  ML= 1.6
   lat: 48.030N  lon: 20.659E  h= 10.4 km
                 erh= 1.5km    erz= 3.7km
   nr= 12        gap=144       rms=0.36
   Locality: Kisgyőr
   Comments:

sta   dist azm  phase  hr mn  sec     res
HU02  14.3 316    PgU   4:33:59.01    0.10
                  Sg      34:01.32   -0.05
KECS  52.1 346    Pg    4:34:05.56    0.33
                  Sg      34:12.55   -0.07
ABAH  52.4  56    Pg    4:34:05.02   -0.26
                  Sg      34:12.45   -0.26
JOS   52.6 350    PgD   4:34:05.42    0.10
HU23  53.5 215    Pg    4:34:05.54    0.07
PSZ   58.4 258    Pg    4:34:05.98   -0.36
                  Sg      34:13.88   -0.73
BSZH  86.3 200    Pg    4:34:12.17    0.89
                  Sg      34:23.17   -0.22
```

1089.

```
 2019-12-29  time: 21:02:45.69 UTC  ML= 1.6
   lat: 47.327N  lon: 18.317E  h= 11.9 km
                 erh= 1.7km    erz= 1.2km
   nr= 21        gap= 98       rms=0.43
   Locality: Söréd
   Comments:

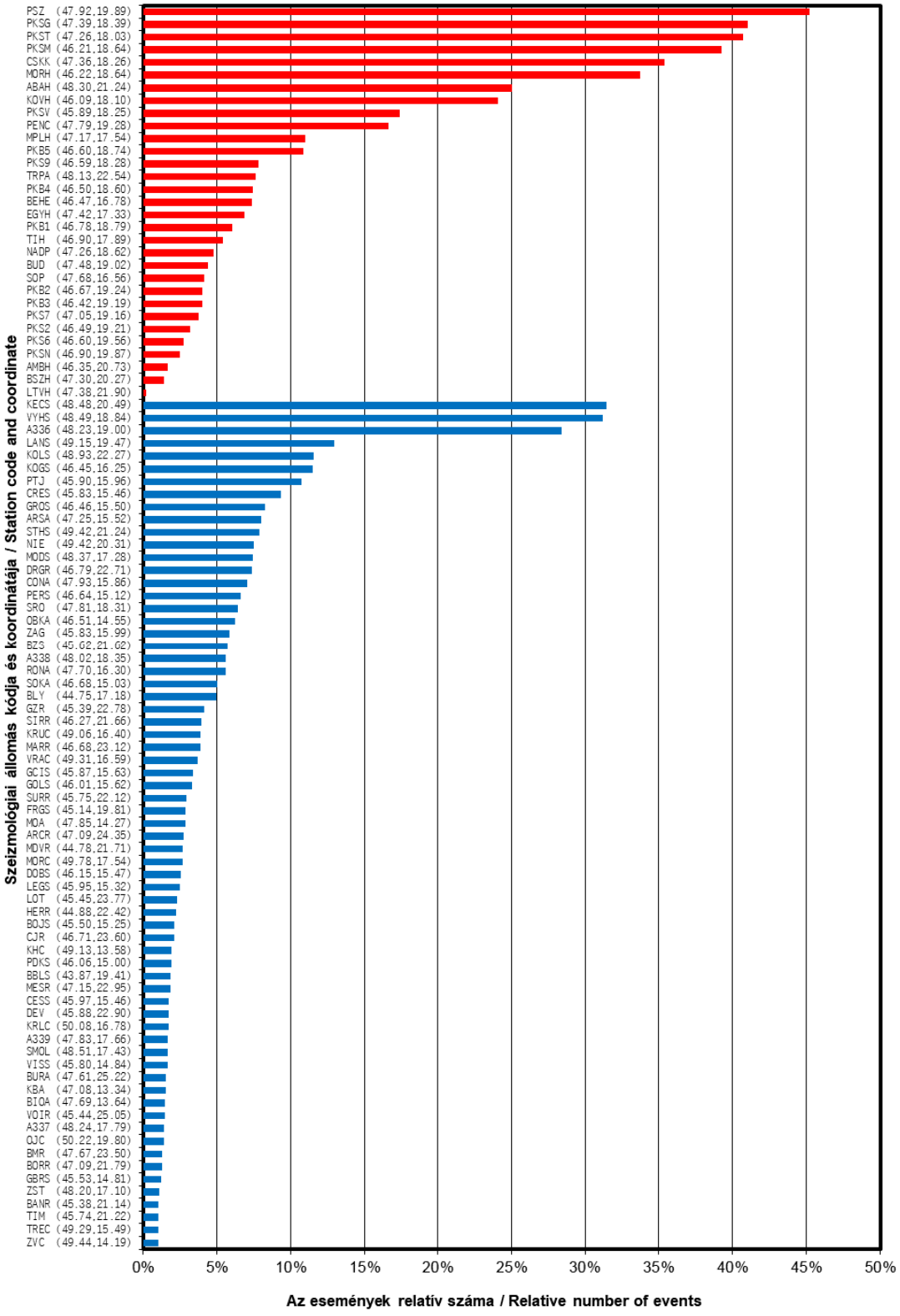
sta   dist azm  phase  hr mn  sec     res
CSKK   5.8 313    PgU  21:02:48.19    0.13
                  Sg      02:49.24   -0.67
PKSG   9.1  38    PgD  21:02:48.55    0.18
                  Sg      02:49.97   -0.49
PKST  22.7 251    Pg   21:02:50.19   -0.07
                  Sg      02:53.23   -0.60
MPLH  61.4 253    Pg   21:02:57.22    0.37
                  Sg      03:05.60    0.04
EGYH  75.1 278    Sg   21:03:09.99    0.14
PKS9  82.3 182    Pg   21:03:00.98    0.44
PKB5  87.4 159    Pg   21:03:01.64    0.20
                  Sg      03:13.20   -0.53
PKB4  94.9 167    P*   21:03:03.02    0.26
                  S*      03:13.90   -2.18*
PKB2 101.1 136    P*   21:03:04.15    0.45
MORH 126.0 169    Pn   21:03:06.89   -0.03
                  Sn      03:22.24   -1.24
PKSM 126.4 169    Pn   21:03:06.79   -0.18
                  Sn      03:22.37   -1.20
KOVH 138.7 187    Sn   21:03:26.12   -0.17
PKSV 160.0 182    Sn   21:03:31.72    0.71
```

1090.

```
 2019-12-31  time:  3:13:25.34 UTC  ML= 2.6
   lat: 45.906N  lon: 18.785E  h=  5.6 km
                 erh= 1.3km    erz= 1.2km
   nr= 35        gap= 60       rms=0.53
   Locality: Homorúd
   Comments:

sta   dist azm  phase  hr mn  sec     res
PKSM  35.8 342    PgD   3:13:32.18    0.37
                  Sg      13:36.44   -0.42
MORH  36.2 342    PgD   3:13:32.21    0.33
                  Sg      13:36.72   -0.26
PKSV  41.4 267    Pg    3:13:33.12    0.31
                  Sg      13:38.26   -0.37
KOVH  56.9 291    PgU   3:13:35.43   -0.12
                  Sg      13:42.30   -1.20
PKB3  65.7  29    Pg    3:13:37.33    0.21
PKB4  67.1 348    PgD   3:13:37.58    0.21
                  Sg      13:45.96   -0.80
PKS2  73.1  27    PgD   3:13:38.67    0.24
PKB5  76.7 357    PgD   3:13:39.14    0.06
PKS9  85.2 333    PgU   3:13:40.86    0.27
PKB2  92.4  22    Pg    3:13:41.80   -0.07
PKS6  97.8  38    Pg    3:13:42.51   -0.32
FRGS 117.2 137    PnD   3:13:45.56   -0.72
                  Sn      14:00.98   -1.62
PKS7 130.1  13    PnD   3:13:48.34    0.45
                  Sn      14:05.12   -0.35
PKST 161.1 339    Pn    3:13:51.45   -0.29
CSKK 166.9 346    Sn    3:14:14.27    0.63
PKSG 168.0 350    Pn    3:13:52.02   -0.58
                  Sn      14:14.66    0.80
MPLH 170.0 326    Pn    3:13:52.82   -0.03
BUD  176.4   6    Sn    3:14:16.24    0.51
BLY  179.7 224    Pn    3:13:55.66    1.59
                  Sn      14:17.37    0.90
EGYH 201.5 326    Pn    3:13:56.98    0.19
BZS  222.6  98    Pn    3:13:59.14   -0.28
BBLS 231.8 168    Pn    3:14:00.38   -0.18
PSZ  239.2  21    Pn    3:14:06.67    5.19*
RONA 275.5 316    Pn    3:14:05.78   -0.23
```

```
                  Sn      14:35.44   -2.28*
ARSA 291.3 301    Pn    3:14:07.71   -0.28
                  Sn      14:37.56   -3.69*
MODS 297.3 337   ePn    3:14:08.90    0.17
                 eSn      14:38.30   -4.26*
KECS 314.2  24   ePn    3:14:12.70    1.86*
CONA 316.5 315    PnD   3:14:10.75   -0.37*
OBKA 333.8 282    Sn    3:14:50.30   -0.37*
KRUC 394.4 333    Pn    3:14:20.45   -0.39*
MOA  406.7 302    Pn    3:14:22.42    0.05*
                  Sn      15:06.05   -0.80*
VRAC 412.7 336    Pn    3:14:23.34    0.23*
BIOA 440.2 297    Pn    3:14:26.71    0.16*
                  Sn      15:11.37   -2.93*
KRLC 487.2 342   ePn    3:14:33.90    1.50*
DPC  527.1 340   ePn    3:14:38.70    1.31*
KHC  531.4 312   ePn    3:14:38.20    0.28*
```



3.4. ábra Az egyes állomások részvétele a hipocentrum meghatározásban

Figure 3.4. Participation of individual stations in hypocentre definition

4.

JELENTŐS FÖLDRENGÉSEK 2019-BEN

(Magyarországon érezhető földrengések)

2019. február 17.	–	Somogyszob
2019. február 22.	–	Tenk
2019. március 7.	–	Somogyszob
2019. május 17.	–	Budakeszi
2019. július 13.	–	Sóskút
2019. július 22.	–	Jászberény
2019. augusztus 11.	–	Tenk
2019. december 13.	–	Sóskút

AZ INTENZITÁS ELOSZLÁS MEGHATÁROZÁSA

A Magyarországon érezhető földrengések intenzitás eloszlását a ShakeMap program (Field et al., 2003) segítségével modelleztük.

Az intenzitás leírása az *Európai Makroszeizmikus Skála (EMS)* szerint történik, mely részletesen megtalálható Grünthal (1998) munkájában. (*A Melléklet*)

4.

SIGNIFICANT EARTHQUAKES IN 2019

(Earthquakes felt in Hungary)

17 February 2019	–	Somogyszob
22 February 2019	–	Tenk
7 March 2019	–	Somogyszob
17 May 2019	–	Budakeszi
13 July 2019	–	Sóskút
22 July 2019	–	Jászberény
11 August 2019	–	Tenk
13 December 2019	–	Sóskút

METHOD USED FOR ESTIMATION OF INTENSITY

Intensity distribution of earthquakes felt in Hungary has been calculated by ShakeMap program (Field et al., 2003).

The assigned intensities correspond to the *European Macroseismic Scale 1998 (EMS)* edited by Grünthal (1998). (*Appendix A*)

2019. február 17. - Somogyszob / 17 February 2019 - Somogyszob

FÉSZEKPARAMÉTEREK / HYPOCENTER PARAMETERS

Dátum / Date:	2019/02/17
Kipattanási idő / Origin Time:	14:40:44.30 UTC
Szélesség és hosszúság / Latitude and Longitude:	46.313 N lon: 17.296 E (S.D. 0.7 km)
Mélység / Depth:	15.8 km (S.D. 0.9 km)
Magnitúdó / Magnitude:	2.7 ML
Maximális intenzitás / Maximum Intensity:	4 EMS

LEÍRÁS

Február 17-én délután 2.7 M_L magnitúdójú földrengés pattant ki Somogy megyében, Somogyszob közelében. A rengés az epicentrum térségében érezhető volt, intenzitása elérte a 4 EMS fokot.

A rengés számított intenzitás eloszlását a 4.1. ábra mutatja.

$I \geq 3$ (gyenge érezhetőség) becsült területe 1800 km^2

$I \geq 4$ (enyhe érezhetőség) becsült területe 20 km^2

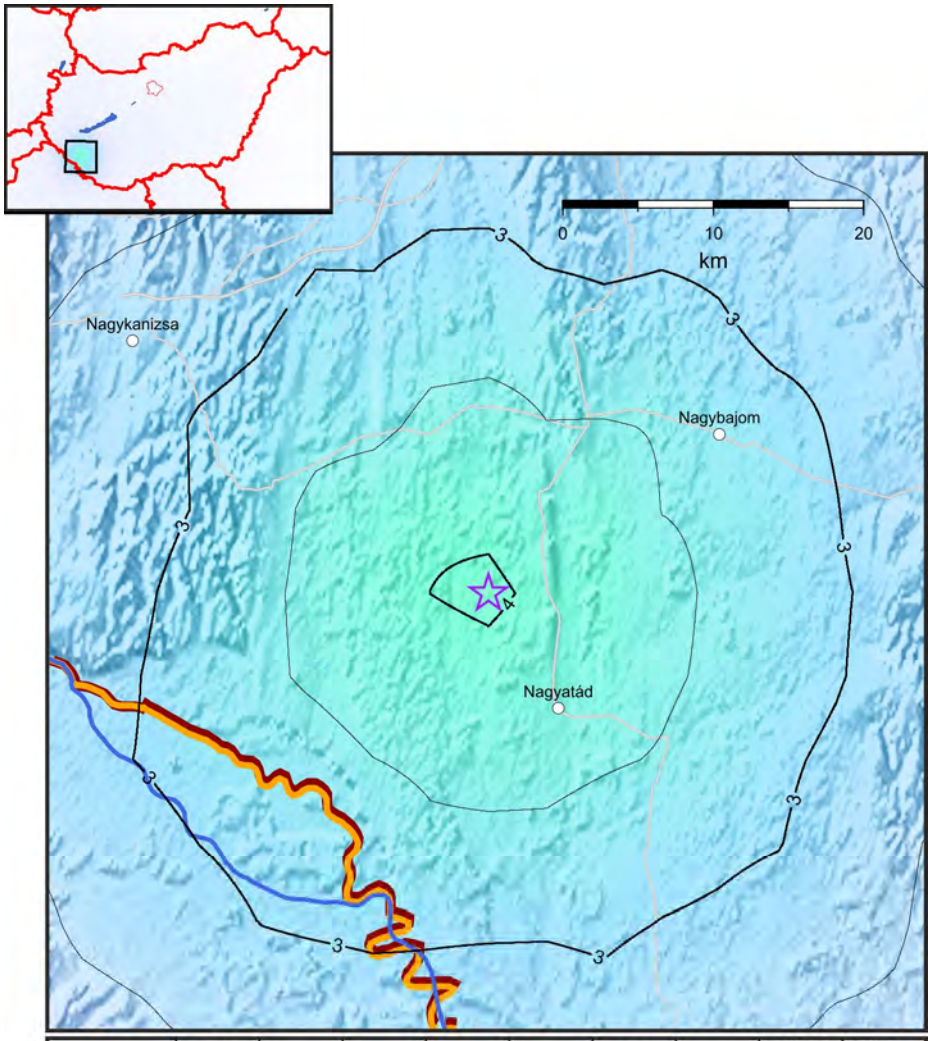
DISCUSSION

On February 17th, a 2.7 M_L magnitude earthquake occurred in Somogy County, near to Somogyszob. The quake was reported felt from the epicentral area. The maximum intensity was estimated around 4 EMS at the epicentral area.

Calculated intensity distribution of the event is shown in Figure 4.1.

Estimated area of $I \geq 3$ (perceived shaking: weak) is about 1800 km^2

Estimated area of $I \geq 4$ (perceived shaking: light) is about 20 km^2



ÉREZHETŐSÉG	nem érezhető	gyenge	enyhe	mérsékelt	erős	nagyon erős	súlyos	nagyon súlyos	különösen súlyos
POTENCIÁLIS KÁR	nincs	nincs	nincs	nagyon csekély	csekély	mérsékelt	mérsékelt nagy	nagy	nagyon nagy
GYORSULÁS (m/s^2)	< 0.017	0.017-0.14	0.14-0.39	0.39-0.92	0.92-1.8	1.8-3.4	3.4-6.5	6.5-12.4	>12.4
SEBESSÉG (m/s)	< 0.001	0.001-0.011	0.011-0.034	0.034-0.081	0.081-0.16	0.16-0.31	0.31-0.60	0.60-1.16	>1.16
INTENZITÁS (SZÁMÍTOTT)	I	II-III	IV	V	VI	VII	VIII	IX	X+

4.1. ábra A 2019. február 17-i, somogyszobi földrengés (14:40 UTC) számított intenzitás eloszlása

Figure 4.1. Instrumental intensity distribution of the Somogyszob earthquake 17th February 2019 (14:40 UTC)

2019. február 22. - Tenk / 22 February 2019 - Tenk

FÉSZEKPARAMÉTEREK / HYPOCENTER PARAMETERS

Dátum / Date:	2019/02/22
Kipattanási idő / Origin Time:	18:57:52.86 UTC
Szélesség és hosszúság / Latitude and Longitude:	47.665 N 20.320 E (S.D. 1.8 km)
Mélység / Depth:	8.4 km (S.D. 2.2 km)
Magnitúdó / Magnitude:	2.2 ML
Maximális intenzitás / Maximum Intensity:	4 EMS

LEÍRÁS

Február 22-én este 2.2 M_L magnitúdójú földrengés pattant ki Heves megyében, Tenk térségében. A rengés az epicentrum térségében érezhető volt, intenzitása elérte a 4 EMS fokot.

A rengés számított intenzitás eloszlását a 4.2. ábra mutatja.

I ≥ 3 (gyenge érezhetőség) becsült területe 1300 km^2

I ≥ 4 (enyhe érezhetőség) becsült területe 200 km^2

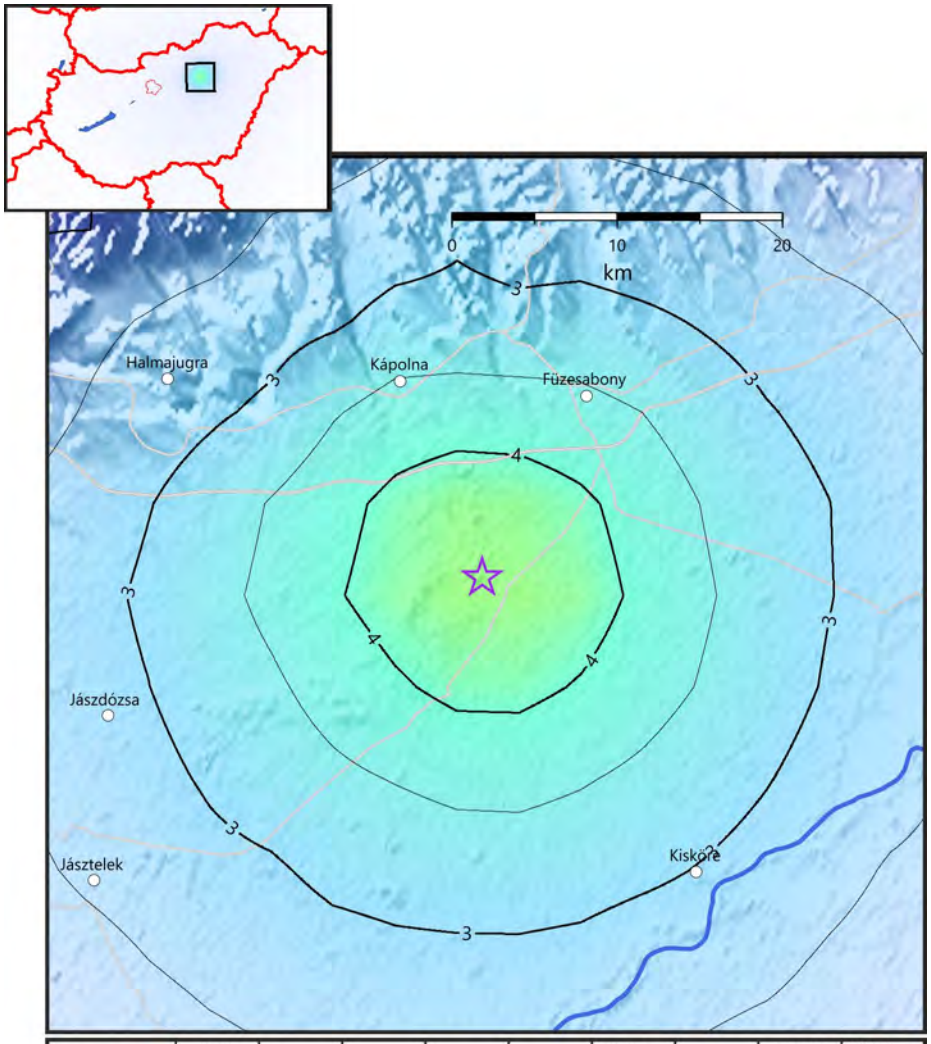
DISCUSSION

In the evening of February 22nd, a 2.2 M_L magnitude earthquake occurred in the surroundings of Tenk, Heves County. The quake was reported felt from the epicentral area. The maximum intensity was estimated around 4 EMS at the epicentral area.

Calculated intensity distribution of the event is shown in Figure 4.2.

Estimated area of I ≥ 3 (perceived shaking: weak) is about 1300 km^2

Estimated area of I ≥ 4 (perceived shaking: light) is about 200 km^2



ÉREZHETŐSÉG	nem érezhető	gyenge	enyhe	mérsékelt	erős	nagyon erős	súlyos	nagyon súlyos	különösen súlyos
POTENCIÁLIS KÁR	nincs	nincs	nincs	nagyon csekély	csekély	mérsékelt	mérsékelt nagy	nagy	nagyon nagy
GYORSULÁS (m/s^2)	< 0.017	0.017-0.14	0.14-0.39	0.39-0.92	0.92-1.8	1.8-3.4	3.4-6.5	6.5-12.4	>12.4
SEBESSÉG (m/s)	< 0.001	0.001-0.011	0.011-0.034	0.034-0.081	0.081-0.16	0.16-0.31	0.31-0.60	0.60-1.16	>1.16
INTENZITÁS (SZÁMÍTOTT)	I	II-III	IV	V	VI	VII	VIII	IX	X+

4.2. ábra A 2019. február 22-i, tenki földrengés (18:57 UTC) számított intenzitás eloszlása

Figure 4.2. Instrumental intensity distribution of the Tenk earthquake 22nd February 2019 (18:57 UTC)

2019. március 7. - Somogyszob / 7 March 2019 - Somogyszob

FÉSZEKPARAMÉTEREK / HYPOCENTER PARAMETERS

Dátum / Date:	2019/03/07
Kipattanási idő / Origin Time:	19:07:54.24 UTC
Szélesség és hosszúság / Latitude and Longitude:	46.306 N 17.303 E (S.D. 0.8 km)
Mélység / Depth:	17.9 km (S.D. 0.8 km)
Magnitúdó / Magnitude:	4.0 ML
Maximális intenzitás / Maximum Intensity:	5 EMS

LEÍRÁS

A február 17-i rengést követően március 7-én este újabb, 4.0 M_L magnitúdójú földrengés volt érezhető Somogy megyében, Somogyszob közelében. A rengés intenzitása az epicentrum térségében elérte az 5 EMS fokot.

A rengés számított intenzitás eloszlását a 4.3. ábra mutatja.

$I \geq 3$ (gyenge érezhetőség) becsült területe 9700 km^2

$I \geq 4$ (enyhe érezhetőség) becsült területe 200 km^2

$I \geq 5$ (mérsékelt érezhetőség) becsült területe 5 km^2

DISCUSSION

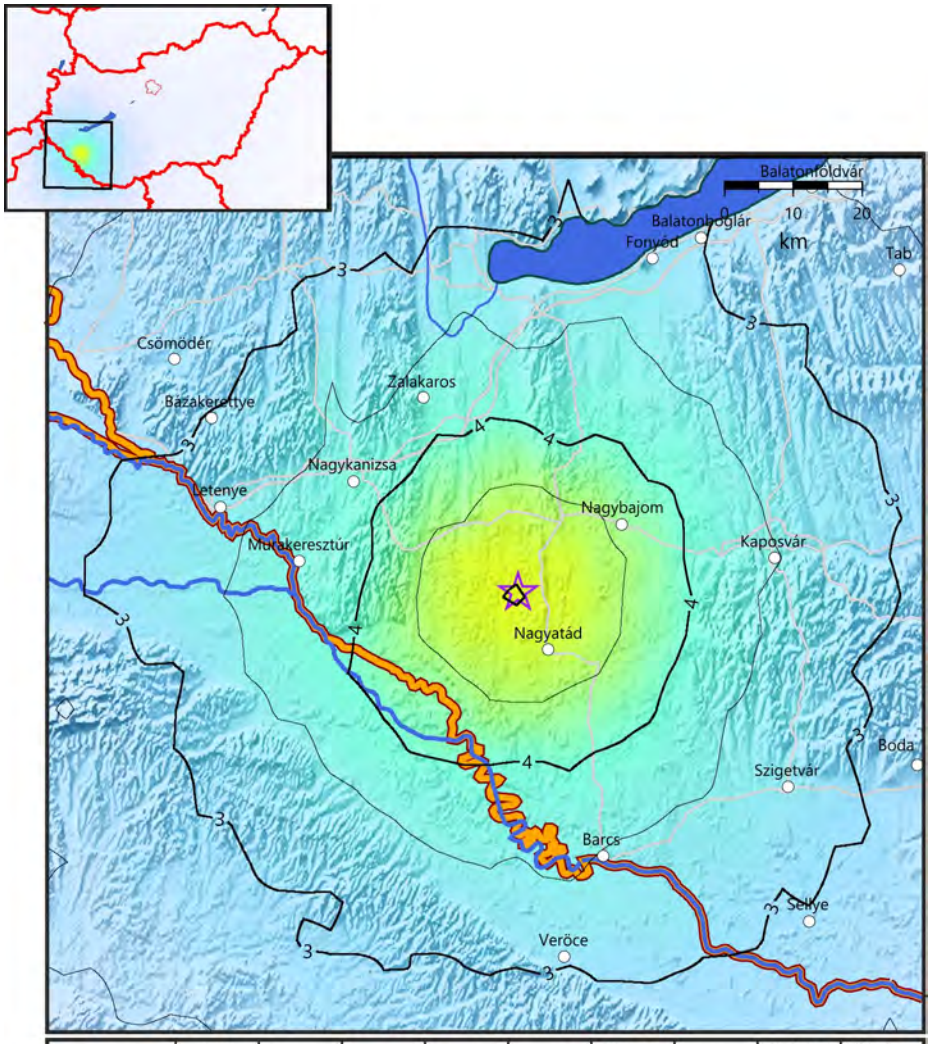
Following the February 17th earthquake, another 4.0 M_L quake was reported felt from Somogy County, near to Somogyszob. The quake was somewhat larger than the previous one, the maximum intensity was estimated around 5 EMS at the epicentral area.

Calculated intensity distribution of the event is shown in Figure 4.3.

Estimated area of $I \geq 3$ (perceived shaking: weak) is about 9700 km^2

Estimated area of $I \geq 4$ (perceived shaking: light) is about 200 km^2

Estimated area of $I \geq 5$ (perceived shaking: moderate) is about 5 km^2



ÉREZHETŐSÉG	nem érezhető	gyenge	enyhe	mérsékelt	erős	nagyon erős	súlyos	nagyon súlyos	különösen súlyos
POTENCIÁLIS KÁR	nincs	nincs	nincs	nagyon csekély	csekély	mérsékelt	mérsékelt nagy	nagy	nagyon nagy
GYORSULÁS (m/s^2)	< 0.017	0.017-0.14	0.14-0.39	0.39-0.92	0.92-1.8	1.8-3.4	3.4-6.5	6.5-12.4	>12.4
SEBESSÉG (m/s)	< 0.001	0.001-0.011	0.011-0.034	0.034-0.081	0.081-0.16	0.16-0.31	0.31-0.60	0.60-1.16	>1.16
INTENZITÁS (SZÁMÍTOTT)	I	II-III	IV	V	VI	VII	VIII	IX	X+

4.3. ábra A 2019. március 7-i, somogyszobi földrengés (19:07 UTC) számított intenzitás eloszlása

Figure 4.3. Instrumental intensity distribution of the Somogyszob earthquake 7th March 2019 (19:07 UTC)

2019. május 17. - Budakeszi / 17 May 2019 - Budakeszi

FÉSZEKPARAMÉTEREK / HYPOCENTER PARAMETERS

Dátum / Date:	2019/05/17
Kipattanási idő / Origin Time:	07:00:26.54 UTC
Szélesség és hosszúság / Latitude and Longitude:	47.545 N 18.943 E (S.D. 0.8 km)
Mélység / Depth:	11.0 km (S.D. 0.9 km)
Magnitúdó / Magnitude:	2.7 ML
Maximális intenzitás / Maximum Intensity:	4 EMS

LEÍRÁS

Május 17-én reggel 2.7 M_L magnitúdójú földrengés pattant ki Budakeszi közelében. A rengés az epicentrum térségében érezhető volt, intenzitása elérte a 4 EMS fokot.

A rengés számított intenzitás eloszlását a 4.4. ábra mutatja.

I ≥ 3 (gyenge érezhetőség) becsült területe 1900 km^2

I ≥ 4 (enyhe érezhetőség) becsült területe 215 km^2

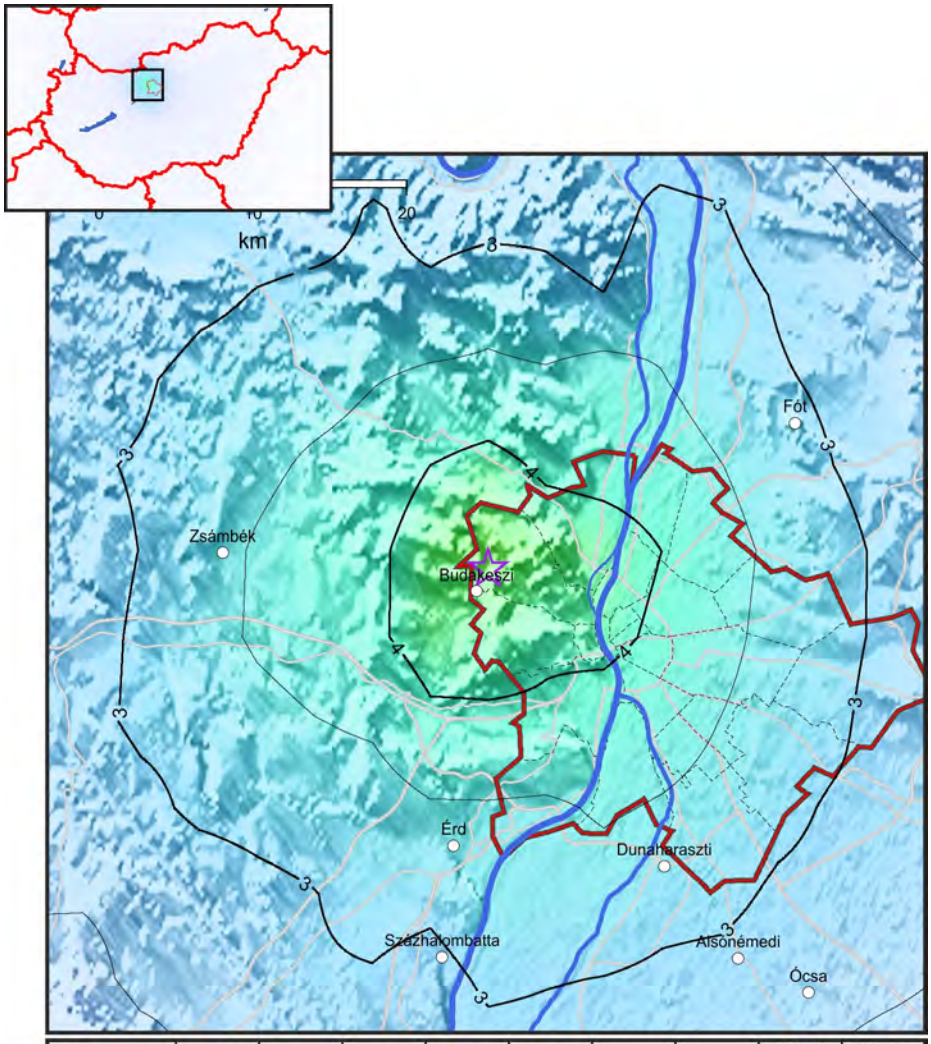
DISCUSSION

On May 17th, a 2.7 M_L magnitude earthquake occurred near to Budakeszi. The quake was reported felt from the epicentral area. The maximum intensity was estimated around 4 EMS at the epicentral area.

Calculated intensity distribution of the event is shown in Figure 4.4.

Estimated area of I ≥ 3 (perceived shaking: weak) is about 1900 km^2

Estimated area of I ≥ 4 (perceived shaking: light) is about 215 km^2



ÉREZHETŐSÉG	nem érezhető	gyenge	enyhe	mérsékelt	erős	nagyon erős	súlyos	nagyon súlyos	különösen súlyos
POTENCIÁLIS KÁR	nincs	nincs	nincs	nagyon csekély	csekély	mérsékelt	mérsékelt nagy	nagy	nagyon nagy
GYORSULÁS (m/s^2)	< 0.017	0.017-0.14	0.14-0.39	0.39-0.92	0.92-1.8	1.8-3.4	3.4-6.5	6.5-12.4	>12.4
SEBESSÉG (m/s)	< 0.001	0.001-0.011	0.011-0.034	0.034-0.081	0.081-0.16	0.16-0.31	0.31-0.60	0.60-1.16	>1.16
INTENZITÁS (SZÁMÍTOTT)	I	II-III	IV	V	VI	VII	VIII	IX	X+

4.4. ábra A 2019. május 17-i, budakeszi földrengés (07:00 UTC) számított intenzitás eloszlása

Figure 4.4. Instrumental intensity distribution of the Budakeszi earthquake 17th May 2019 (07:00 UTC)

2019. július 13. - Sóskút / 13 July 2019 - Sóskút

FÉSZEKPARAMÉTEREK / HYPOCENTER PARAMETERS

Dátum / Date:	2019/07/13
Kipattanási idő / Origin Time:	12:41:12.61 UTC
Szélesség és hosszúság / Latitude and Longitude:	47.435 N 18.849 E (S.D. 0.9 km)
Mélység / Depth:	10.9 km (S.D. 1.0 km)
Magnitúdó / Magnitude:	2.5 ML
Maximális intenzitás / Maximum Intensity:	4 EMS

LEÍRÁS

Július 13-án 2.5 M_L magnitúdójú földrengést éreztek Sóskút – Budaörs környékén. A rengés intenzitása 4 EMS fokra becsülhető az epicentrum környezetében. A földrengés csak kis területen volt érezhető.

A rengés számított intenzitás eloszlását a 4.5. ábra mutatja.

$I \geq 3$ (gyenge érezhetőség) becsült területe 1610 km^2

$I \geq 4$ (enyhe érezhetőség) becsült területe 210 km^2

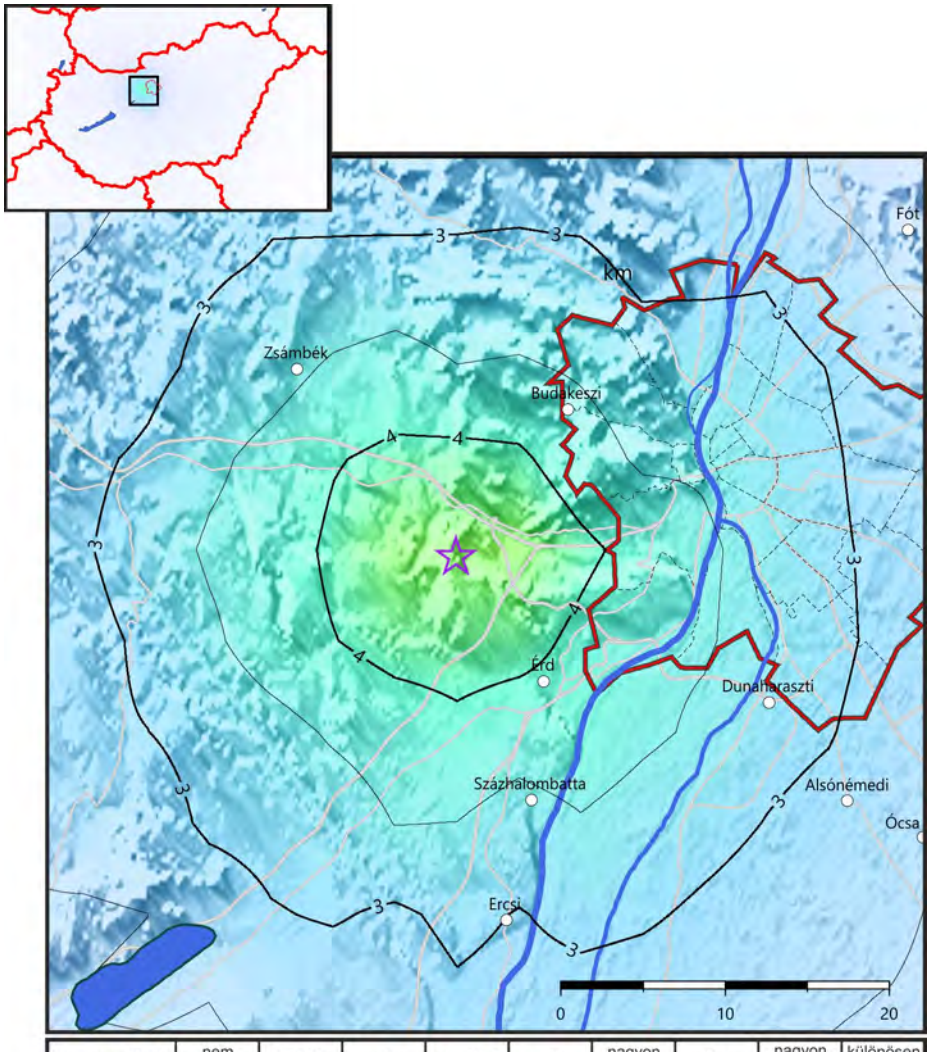
DISCUSSION

In July 13th, a 2.5 M_L magnitude earthquake was felt and reported at Sóskút – Budaörs area. The maximum intensity was estimated 4 EMS. The earthquake was felt in a small area.

Calculated intensity distribution of the event is shown in Figure 4.5.

Estimated area of $I \geq 3$ (perceived shaking: weak) is about 1610 km^2

Estimated area of $I \geq 4$ (perceived shaking: light) is about 210 km^2



ÉREZHETŐSÉG	nem érezhető	gyenge	enyhe	mérsékelt	erős	nagyon erős	súlyos	nagyon súlyos	különösen súlyos
POTENCIÁLIS KÁR	nincs	nincs	nincs	nagyon csekély	csekély	mérsékelt	mérsékelt nagy	nagy	nagyon nagy
GYORSULÁS (m/s^2)	< 0.017	0.017-0.14	0.14-0.39	0.39-0.92	0.92-1.8	1.8-3.4	3.4-6.5	6.5-12.4	>12.4
SEBESSÉG (m/s)	< 0.001	0.001-0.011	0.011-0.034	0.034-0.081	0.081-0.16	0.16-0.31	0.31-0.60	0.60-1.16	>1.16
INTENZITÁS (SZÁMÍTOTT)	I	II-III	IV	V	VI	VII	VIII	IX	X+

4.5. ábra A 2019. július 13-i, sóskúti földrengés (12:41 UTC) számított intenzitás eloszlása

Figure 4.5. Instrumental intensity distribution of the Sóskút earthquake 13th July 2019 (12:41 UTC)

2019. július 22. - Jászberény / 22 July 2019 - Jászberény

FÉSZEKPARAMÉTEREK / HYPOCENTER PARAMETERS

Dátum / Date:	2019/07/22
Kipattanási idő / Origin Time:	23:14:05.00 UTC
Szélesség és hosszúság / Latitude and Longitude:	47.460 N 19.869 E (S.D. 1.0 km)
Mélység / Depth:	12.2 km (S.D. 1.2 km)
Magnitúdó / Magnitude:	2.2 ML
Maximális intenzitás / Maximum Intensity:	3-4 EMS

LEÍRÁS

Egy kicsi, 2.2 M_L magnitúdójú földrengést éreztek Jászberény térségében helyi idő szerint július 23-án éjjel. A rengés intenzitása 3-4 EMS fokra becsülhető az epicentrum környezetében. A földrengés csak nagyon kis területen volt érezhető.

A rengés számított intenzitás eloszlását a 4.6. ábra mutatja.

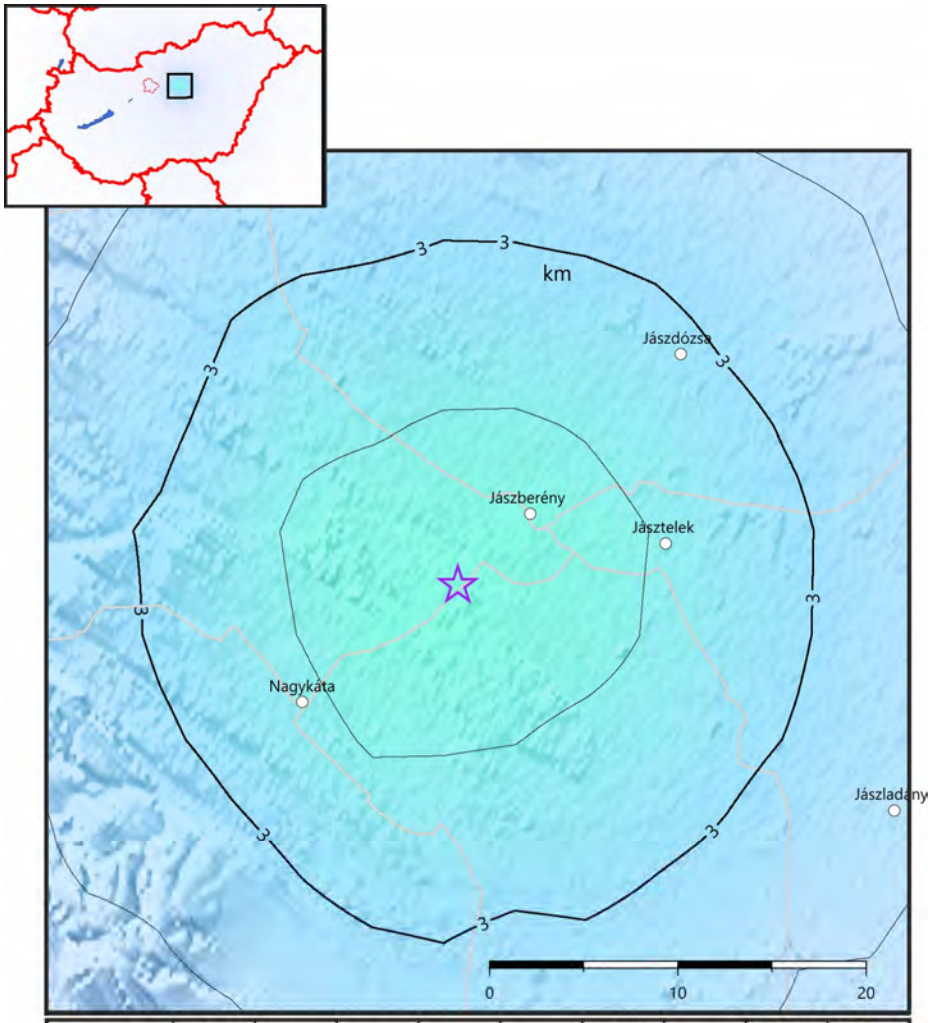
$I \geq 3$ (gyenge érezhetőség) becsült területe 1020 km^2

DISCUSSION

A small 2.2 M_L magnitude earthquake was felt at Jászberény area around midnight local time of July 23rd. The maximum intensity was estimated 3-4 EMS. The earthquake was felt in a very small area.

Calculated intensity distribution of the event is shown in Figure 4.6.

Estimated area of $I \geq 3$ (perceived shaking: weak) is about 1020 km^2



ÉREZHETŐSÉG	nem érezhető	gyenge	enyhe	mérsékelt	erős	nagyon erős	súlyos	nagyon súlyos	különösen súlyos
POTENCIÁLIS KÁR	nincs	nincs	nincs	nagyon csekély	csekély	mérsékelt	mérsékelt nagy	nagy	nagyon nagy
GYORSULÁS (m/s^2)	< 0.017	0.017-0.14	0.14-0.39	0.39-0.92	0.92-1.8	1.8-3.4	3.4-6.5	6.5-12.4	>12.4
SEBESSÉG (m/s)	< 0.001	0.001-0.011	0.011-0.034	0.034-0.081	0.081-0.16	0.16-0.31	0.31-0.60	0.60-1.16	>1.16
INTENZITÁS (SZÁMÍTOTT)	I	II-III	IV	V	VI	VII	VIII	IX	X+

4.6. ábra A 2019. július 22-i, jászberényi földrengés (23:14 UTC) számított intenzitás eloszlása

Figure 4.6. Instrumental intensity distribution of the Jászberény earthquake 22nd July 2019 (23:14 UTC)

2019. augusztus 11. - Tenk / 11 August 2019 - Tenk

FÉSZEKPARAMÉTEREK / HYPOCENTER PARAMETERS

Dátum / Date:	2019/08/11
Kipattanási idő / Origin Time:	23:29:46.78 UTC
Szélesség és hosszúság / Latitude and Longitude:	47.644 N 20.330 E (S.D. 0.9 km)
Mélység / Depth:	14.4 km (S.D. 1.0 km)
Magnitúdó / Magnitude:	4.1 ML
Maximális intenzitás / Maximum Intensity:	4-5 EMS

LEÍRÁS

A február 22-i 2.2 M_L magnitúdójú földrengést követően augusztus 11-én éjjel 4.1 M_L magnitúdójú földrengést jeleztek ismét Heves megyéből, Tenk térségéből. A rengés intenzitása 4-5 EMS fokra becsülhető az epicentrum környezetében. A földrengés viszonylag kis területen volt érezhető.

A rengés számított intenzitás eloszlását a 4.7. ábra mutatja.

$I \geq 3$ (gyenge érezhetőség) becsült területe 6200 km^2

$I \geq 4$ (enyhe érezhetőség) becsült területe 600 km^2

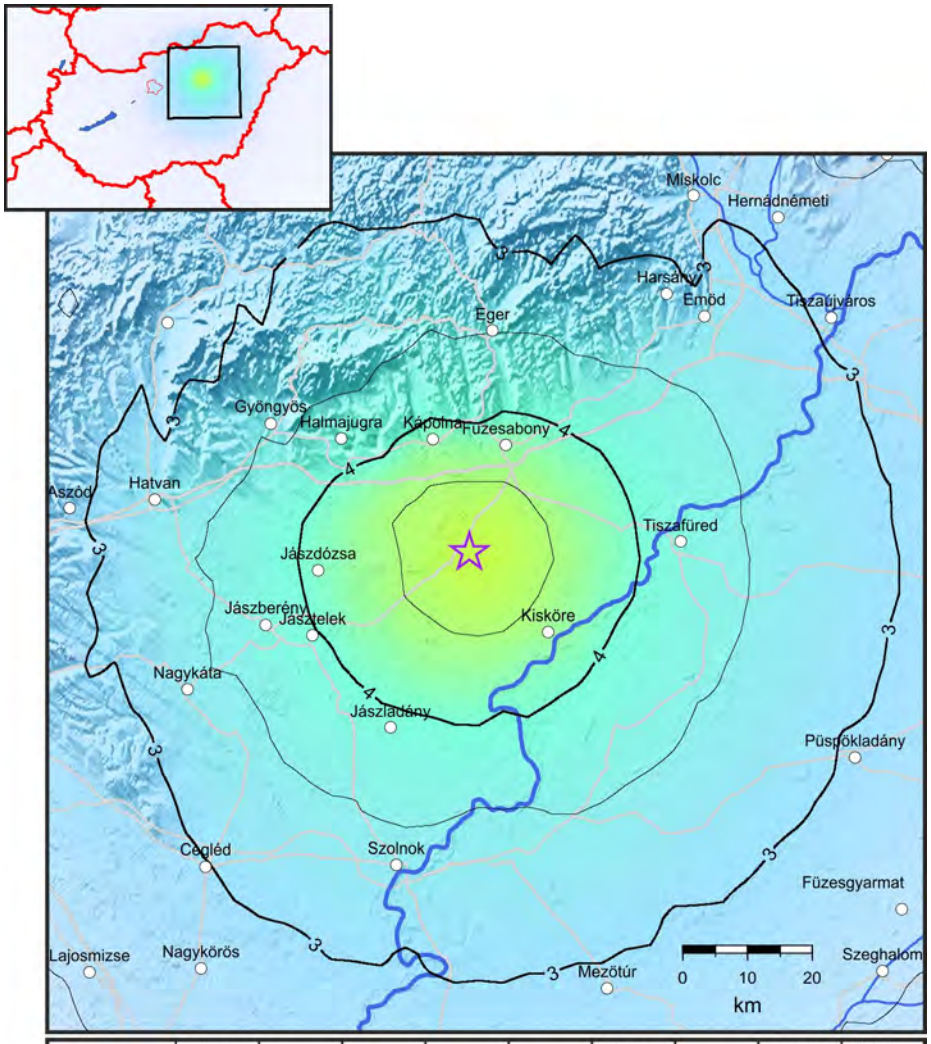
DISCUSSION

Following the February 22nd 2.2 M_L earthquake, another 4.1 M_L quake was reported felt from Tenk, Heves County in 11th of August. The quake was somewhat larger than the previous one, the maximum intensity was estimated around 4-5 EMS at the epicentral area. The earthquake was felt in a relatively small area.

Calculated intensity distribution of the event is shown in Figure 4.7.

Estimated area of $I \geq 3$ (perceived shaking: weak) is about 6200 km^2

Estimated area of $I \geq 4$ (perceived shaking: light) is about 600 km^2



ÉREZHETŐSÉG	nem érezhető	gyenge	enyhe	mérsékelt	erős	nagyon erős	súlyos	nagyon súlyos	különösen súlyos
POTENCIÁLIS KÁR	nincs	nincs	nincs	nagyon csekély	csekély	mérsékelt	mérsékelt nagy	nagy	nagyon nagy
GYORSULÁS (m/s^2)	< 0.017	0.017-0.14	0.14-0.39	0.39-0.92	0.92-1.8	1.8-3.4	3.4-6.5	6.5-12.4	>12.4
SEBESSÉG (m/s)	< 0.001	0.001-0.011	0.011-0.034	0.034-0.081	0.081-0.16	0.16-0.31	0.31-0.60	0.60-1.16	>1.16
INTENZITÁS (SZÁMÍTOTT)	I	II-III	IV	V	VI	VII	VIII	IX	X+

4.7. ábra A 2019. augusztus 11-i, tenki földrengés (23:29 UTC) számított intenzitás eloszlása

Figure 4.7. Instrumental intensity distribution of the Tenk earthquake 11th August 2019 (23:29 UTC)

2019. december 13. - Sóskút / 13 December 2019 - Sóskút

FÉSZEKPARAMÉTEREK / HYPOCENTER PARAMETERS

Dátum / Date:	2019/12/13
Kipattanási idő / Origin Time:	16:57:44.22 UTC
Szélesség és hosszúság / Latitude and Longitude:	47.436 N 18.842 E (S.D. 0.8 km)
Mélység / Depth:	9.2 km (S.D. 0.8 km)
Magnitúdó / Magnitude:	2.9 ML
Maximális intenzitás / Maximum Intensity:	4 EMS

LEÍRÁS

Néhány hónappal a július 13-i 2.5 M_L magnitúdójú földrengést követően december 13-án 2.9 M_L magnitúdójú földrengést jeleztek ismét Sóskút - Törökbálint térségéből. A rengés intenzitása 4 EMS fokra becsülhető az epicentrum környezetében. A földrengés kis területen volt érezhető.

A rengés számított intenzitás eloszlását a 4.8. ábra mutatja.

$I \geq 3$ (gyenge érezhetőség) becsült területe 2500 km^2

$I \geq 4$ (enyhe érezhetőség) becsült területe 350 km^2

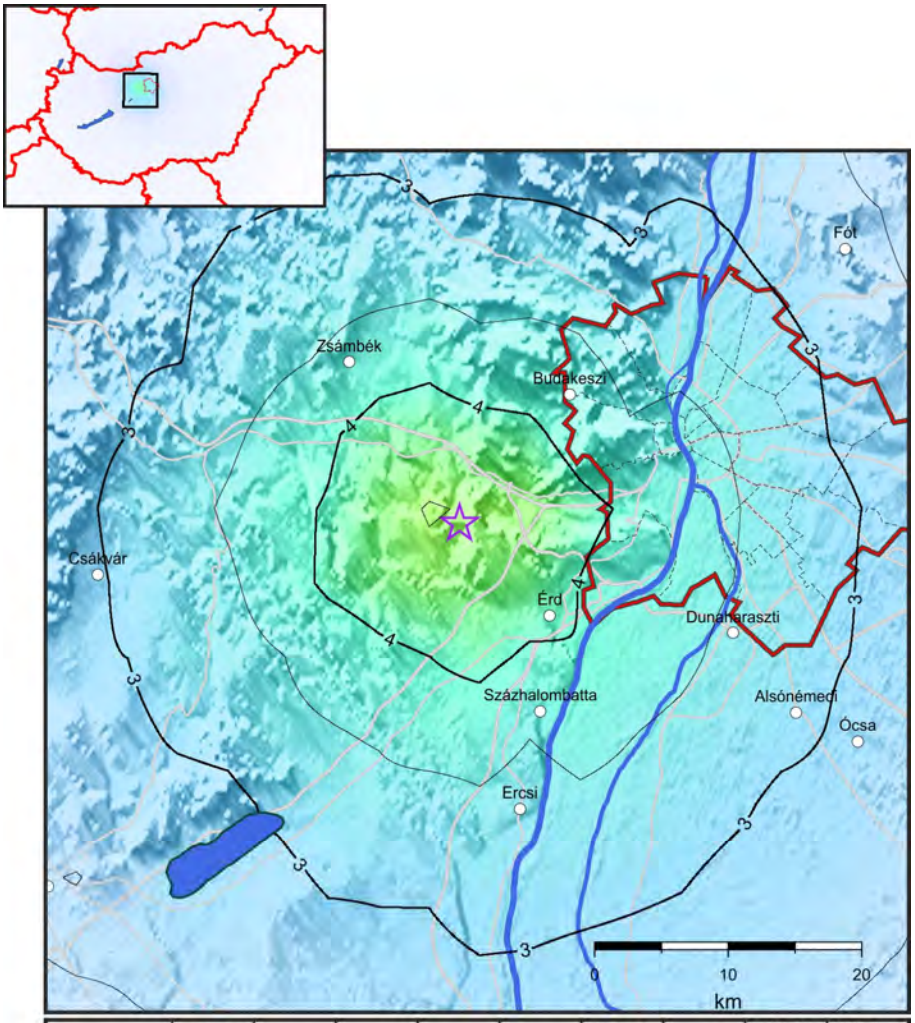
DISCUSSION

A few months after the July 13th 2.5 M_L earthquake, another 2.9 M_L quake was reported felt from Sóskút – Törökbálint area in 13th of December. The quake was somewhat larger than the previous one, the maximum intensity was estimated around 4 EMS at the epicentral area. The earthquake was felt in a small area.

Calculated intensity distribution of the event is shown in Figure 4.8.

Estimated area of $I \geq 3$ (perceived shaking: weak) is about 2500 km^2

Estimated area of $I \geq 4$ (perceived shaking: light) is about 350 km^2



ÉREZHETŐSÉG	nem érezhető	gyenge	enyhe	mérsékelt	erős	nagyon erős	súlyos	nagyon súlyos	különösen súlyos
POTENCIÁLIS KÁR	nincs	nincs	nincs	nagyon csekély	csekély	mérsékelt	mérsékelt nagy	nagy	nagyon nagy
GYORSULÁS (m/s^2)	< 0.017	0.017-0.14	0.14-0.39	0.39-0.92	0.92-1.8	1.8-3.4	3.4-6.5	6.5-12.4	>12.4
SEBESSÉG (m/s)	< 0.001	0.001-0.011	0.011-0.034	0.034-0.081	0.081-0.16	0.16-0.31	0.31-0.60	0.60-1.16	>1.16
INTENZITÁS (SZÁMÍTOTT)	I	II-III	IV	V	VI	VII	VIII	IX	X+

4.8. ábra A 2019. december 13-i, sóskúti földrengés (16:57 UTC) számított intenzitás eloszlása

Figure 4.8. Instrumental intensity distribution of the Sóskút earthquake 13th December 2019 (16:57 UTC)

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A MELLÉKLET

EURÓPAI MAKROSZEIZMIKUS SKÁLA (EMS)

1 ☞ Nem érezhető

Nem érezhető, még a legkedvezőbb körülmények között sem.

2 ☞ Alig érezhető

A rezgést csak egy-egy, elsősorban fekvő ember érzi, különösen magas épületek felsőbb emeletein.

3 ☞ Gyenge

A rezgés gyenge, néhány ember érzi, főleg épületen belül. A fekvő emberek lengést vagy gyenge remegést éreznek.

4 ☞ Széles körben érezhető

A rengést épületen belül sokan érzik, a szabadban kevesen. Néhány ember felébred. A rezgés mértéke nem ijesztő. Ablakok, ajtók, edények megcsörrennek, felfüggesztett tárgyak lengenek.

5 ☞ Erős

A rengést épületen belül a legtöbben érzik, a szabadban csak néhányan. Sok alvó ember felébred, néhányan a szabadba menekülnek. Az egész épület remeg, a felfüggesztett tárgyak nagyon lengenek. Tányérok, poharak összekoccannak. A rezgés erős, nehéz tárgyak felborulnak. Ajtók, ablakok kinyílnak vagy bezáródnak. Néhány esetben az ablaküvegek betörhetnek. Néhány vályog- és téglaépület falában hajszálrepedések keletkezhetnek, kisebb vakolatdarabok lehullhatnak.

6 ☞ Kisebb károkat okozó

Épületen belül szinte mindenki, szabadban sokan érzik. Épületben tartózkodók közül sokan megijednek, és a szabadba menekülnek. Kisebb tárgyak leesnek. Hagyományos épületek közül sokban keletkezik kisebb kár, hajszálrepedés a vakolatban, kisebb vakolatdarabok lehullanak.

7 ☞ Károkat okozó

A legtöbb ember megrémül, és a szabadba menekül. Bútorok elmozdulnak, a polcokról sok tárgy leesik. Sok hagyományos épület szenved mérsékelt sérülést: kisebb repedések keletkeznek a falakban, kémények ledőlnek.

8 ☞ Súlyos károkat okozó

Bútorok felborulnak. Sok hagyományos épület megsérül: kémények ledőlnek, a falakban nagy repedések keletkeznek, néhány épület részlegesen összedől.

9 ☞ Pusztító

Oszlopok, műemlékek ledőlnek vagy elferdülnek. Sok hagyományos épület részlegesen, néhány teljesen rombadől.

10 ☞ Nagyon pusztító

Sok hagyományos épület összedől.

11 ☞ Elsöprő

A legtöbb épület összedől.

12 ☞ Teljesen elsöprő

Gyakorlatilag minden építmény megsemmisül.

(Részletesen lásd: Grünthal, 1998)

APPENDIX A

EUROPEAN MACROSEISMIC SCALE (EMS)

1 ☞ Not felt

Not felt, even the most favourable circumstances.

2 ☞ Scarcely felt

Vibration is felt only by individual people at rest in houses, especially on upper floors of buildings.

3 ☞ Weak

The vibration is weak and is felt indoors by a few people. People at rest feel a swaying or light trembling.

4 ☞ Largely observed

The earthquake is felt indoors by many people, outdoors by very few. A few people are awakened. The level of vibration is not frightening. Windows, doors and dishes rattle. Hanging objects swing.

5 ☞ Strong

The earthquake is felt indoors by most, outdoors by few. Many sleeping people awake. A few run outdoors. Buildings tremble throughout. Hanging objects swing considerably. China and glasses clatter together. The vibration is strong. Top heavy objects topple over. Doors and windows swing open or shut. Minor damage e.g. fine cracks may occur in ordinary buildings.

6 ☞ Slightly damaging

Felt by most indoors and many outdoors. Many people in buildings are frightened and run outdoors. Small objects fall. Slight damage to many ordinary buildings e.g. fine cracks in plaster and small pieces of plaster fall.

7 ☞ Damaging

Most people are frightened and run outdoors. Furniture is shifted and objects fall from shelves in large numbers. Many ordinary buildings suffer moderate damage: small cracks in walls, partial collapse of chimneys.

8 ☞ Heavily damaging

Furniture may be overturned. Many ordinary buildings suffer damage: chimneys fall, large cracks appear in walls and few buildings may partially collapse.

9 ☞ Destructive

Monuments and columns fall or are twisted. Many ordinary buildings partially collapse and few collapse completely.

10 ☞ Very destructive

Many ordinary buildings collapse.

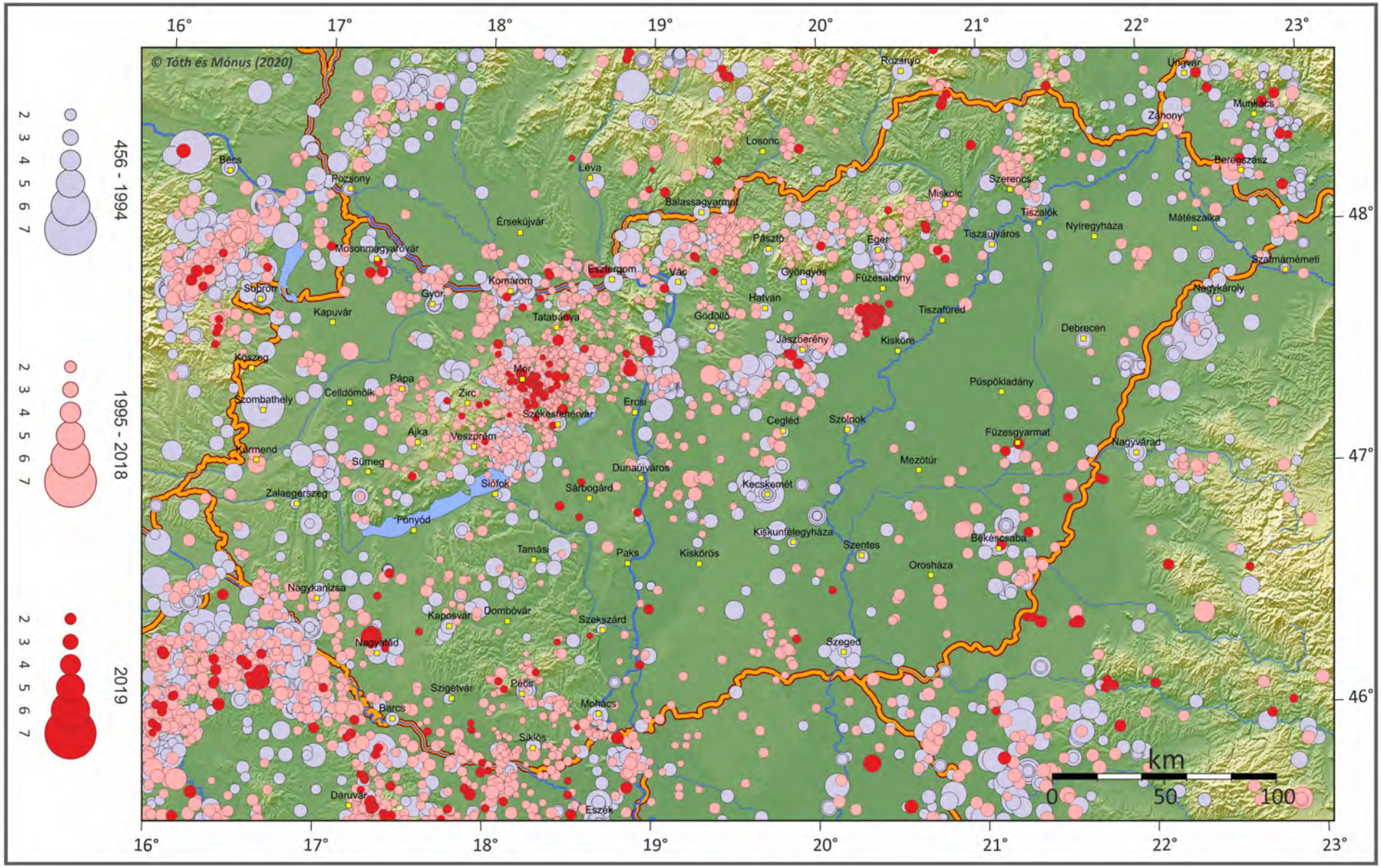
11 ☞ Devastating

Most ordinary buildings collapse.

12 ☞ Completely devastating

Practically all structures above and below ground are heavily damaged or destroyed.

(For details see Grünthal, 1998)


© Tóth és Mónus (2020)
16°
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1995 - 2018
2019
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Bécs
Pozsony
Mosonmagyaróvár
Sopron
Kapuvár
Győr
Komárom
Tatabánya
Esztergom
Érsekújvár
Léva
Losonc
Balassagyarmat
Vác
Gödöllő
Hatvan
Gyöngyös
Pásztó
Eger
Füzesabony
Miskolc
Szerencs
Tiszaújváros
Tiszalök
Nyíregyháza
Tiszafüred
Jászberény
Kisköre
Debrecen
Püspökladány
Mátészalka
Szatmárnémeti
Nagykároly
Nagyvárad
Füzesgyarmat
Mezőtúr
Szolnok
Cegléd
Kecskemét
Kiskunfélegyháza
Szentes
Orosháza
Békéscsaba
Szeged
Kiskőrös
Paks
Sárbogárd
Dunaújváros
Mór
Székesfehérvár
Ercsi
Zirc
Pápa
Celldömölk
Szombathely
Veszprém
Ajka
Sümeg
Keszthely
Zalaegerszeg
Siófok
Fonyód
Tamási
Kaposvár
Dombóvár
Szekszárd
Nagykanizsa
Nagyatád
Szigetvár
Pécs
Barcs
Mohács
Siklós
Daruvár
Eszék
Rozsnyó
Ungvár
Munkács
Zahony
Beregszász