



Magyarországi földrengések évkönyve  
Hungarian Earthquake Bulletin  
2015

Tóth L., Mónus P., Kiszely M.



GeoRisk

Földrengés Mérnöki Iroda ♦ Earthquake Engineering

Budapest



# MAGYARORSZÁGI FÖLDRENGÉSEK ÉVKÖNYVE

## HUNGARIAN EARTHQUAKE BULLETIN

2015

TÓTH LÁSZLÓ\*, MÓNUS PÉTER\*, KISZELY MÁRTA\*

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**Back cover page:**

Earthquakes in Hungary

Historical earthquakes: 456-1994 (grey)

Instrumental earthquakes: 1995-2014 (pink)

Instrumental earthquakes: 2015 (red)

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## 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), 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 földrengéskockázatot, 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.

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) 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.

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 2015. év szeizmikus szempontból átlagosan aktív időszaknak tekinthető Magyarországon. Az év folyamán 479 szeizmikus eseményről szereztünk tudomást a 45.5-49.0 É szélességi és 16.0-23.0 K hosszúsági koordináták által határolt területen, amelyek közül 200 volt természetes eredetű földrengés, 279 pedig robbantás.

Az észlelt földrengések mérete a  $-0.6 \leq M_L \leq 3.9$  lokális magnitúdó tartományba esett. A fészekmélység jellemzően sekély, csak néhány esetben nagyobb 10 km-nél.

A kőbányarobbantások szeizmikus magnitúdói a  $0.0 \leq M_L \leq 2.3$  tartományban voltak, a fészekmélységük pedig minden esetben nulla.

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

A legnagyobb műszeresen meghatározott magnitúdójú rengés 3.9  $M_L$ , míg a legnagyobb földrengés intenzitás, melyet Magyarország területéről az év folyamán jelentettek 5-6 EMS fokozatú volt, egy-két esetben csekély épületkárok is keletkeztek.

A rengések mindegyike többé-kevésbé ismert forrászónához köthető. A legnagyobb számú szeizmikus esemény 2015-ben Iliny-Nógrádmarcfal környékén keletkezett, melyek közül több érezhető is volt. Itt keletkezett az év legnagyobb magnitúdójú (3.9  $M_L$ ) rengése is. A Bükk hegységben keletkezett rengések közül kettő szintén elérte az érezhetőséget.

A Vértes hegységben, a Komárom – Berhida közé eső területen, a Móri-árok forrászónában is számos földrengés keletkezett. Ennek egyik, nem szeizmotektonikai magyarázata az állomáshálózat fokozott érzékenysége ezen a területen.

Az első érezhető rengéseket mindjárt az év első napján január elsején jelezték a Nógrád megyei Nógrádmarcfal – Cserhátsurány – Iliny térségében. Két közepes erősségű,  $M_L$  3.7 és  $M_L$  3.9 magnitúdójú rengés keletkezett a reggeli és délelőtti órákban és okozott ijedelmet a lakosság körében. A rengések intenzitása 5-6 EMS fokra becsülhető az epicentrum térségében. Néhány településen enyhébb épületkárok is keletkeztek, elsősorban gyengébb, régebbi épületekben vakolatrepedések, kémény-sérülések. E két földrengés az év legnagyobb és legjelentősebb rengése volt, mely nagy területen volt érezhető. A rengést számos utórengés követte, melyek közül további kettő érezhető volt.

Március 29-én délután Miskolc – Alsózsolca környékén volt érezhető (5 EMS) egy 3.1  $M_L$  magnitúdójú földrengés. A földmozgás elég nagy területen volt érezhető az epicentrum környezetében. Az epicentrum közvetlen környezetéből kisebb, nem jelentős épületkárokat is jeleztek, jellemzően vakolatrepedések fordultak elő. Néhány éve, 2010. év folyamán legalább 16 kis-közepes földrengés volt ugyanezen a környéken, melyek közül hatot a lakosság is érzett.

Május 11-én, helyi idő szerint reggel 7:00-kor keletkezett földrengés a magyar-román-ukrán határ találkozásának térségében, Szabolcs-Szatmár-Bereg megyében, Garbolc-Újberek közelében. A földmozgás mérete 3.2 volt a Richter-féle skálán. A földrengést az epicentrum környezetében a lakosság érezte, károk nem keletkeztek.

Augusztus 5-én délután, Heves megyében, Pétervására – Garbolc környékén éreztek földrengést. A 2.5  $M_L$  magnitúdójú rengés maximális intenzitása 5 EMS körül volt.

Az év utolsó napjaiban, december 15-én és 23-án Bábolna környékén két rengés (2.0  $M_L$  és 2.9  $M_L$ ) volt érezhető 4 EMS és 5 EMS epicentrális intenzitással.



# 1.

## SUMMARY

2015 was an average active year for Hungarian seismicity. Out of the 479 seismic events located within the area bounded by latitudes 45.5-49.0 N and longitudes 16.0-23.0 E, 200 were identified as natural earthquakes and 279 were known as quarry blasts.

The magnitude of the earthquakes was in the range of  $-0.6 \leq M_L \leq 3.9$ . Each of the earthquakes had shallow focal depth typically less than 10 km.

The seismic magnitude of the quarry blasts was in the range of  $0.0 \leq M_L < 2.3$  with zero focal depth.

During the year, all together nine earthquakes were reported as felt.

The highest magnitude assigned to a shock was 3.9  $M_L$  while the highest intensity reported during the year was 5-6 EMS. Light and insignificant building damages were also reported during the year.

All detected and located earthquakes can be connected to more or less well-known source zones. In 2015, largest number of events were located in Iliny – Nógrádmarcfal area where some quakes were reported as felt. The largest magnitude event of the year was also located at this area. Two of the earthquakes located in the Bükk Mountain area were also felt.

A number of earthquakes was located in the Komárom – Berhida region, in the well-known source zone of the Mór graben. In addition to the undoubted current activity of this area, the high number of detected low magnitude events is partly due to the increased sensitivity of the network here.

The first felt event of the year was reported from Nógrádmarcfal – Cserhátsurány – Iliny area in the morning of January 1<sup>st</sup>. Two shocks of  $M_L$  3.7 and  $M_L$  3.9 were felt 5-6 EMS in the epicentral region. Light and insignificant damages (cracks in walls, and damage of chimneys) were reported from the epicentral area mostly at poorer quality older buildings. These quakes were felt in a large area and proved to be the largest magnitude events of the year. The main shock was followed by a number of aftershocks, out of which two were noticeable and also reported as felt.

A magnitude 3.1  $M_L$  earthquake alerted people at Miskolc – Alsózsolca on 29<sup>th</sup> March.

The shock was felt in a large area and some damages (cracks in walls) were also reported (5 EMS) from the epicenter. In 2010, sixteen small - medium size earthquakes were detected and six of them reported as felt at the same area.

In the morning of May 11<sup>th</sup>, a magnitude 3.2  $M_L$  earthquake alerted people at the Hungarian-Romanian-Ukrainian border region. No damage was reported.

In the afternoon of August 5<sup>th</sup>, a magnitude 2.5  $M_L$  earthquake was felt (5 EMS) at Pétervására – Garbolc.

In December 15<sup>th</sup> and 23<sup>rd</sup>, two quakes (2.0  $M_L$  and 2.9  $M_L$ ) were felt at Bábolna with 4 EMS and 5 EMS epicentral intensity.

## 2.

# FÖLDRENGÉS MEGFIGYELŐ ÁLLOMÁSOK MAGYARORSZÁGON

2015-ben 24 állandó szeizmográf állomás működött Magyarországon. Az állomások közül tízet a GeoRisk Földrengés Mérnöki Iroda Kft., tizennégyet pedig az MTA CSFK Geodéziai és Geofizikai Intézet (MTA CSFK GGI) üzemeltetett (2.1. Táblázat és 2.1. ábra).

### *Szélessávú állomások*

Az év folyamán 13 szélessávú szeizmológiai állomás működött (AMBH, BEHE, BSZH, BUD, 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, EGYH, LTVH és TIH állomásokon Güralp CMG-3T szeizmométer és Güralp CMG-DM24S3-EAM adatgyűjtő egység található. Mindegyik állomás internet összeköttetéssel rendelkezik, így az adatok közel valós időben, egy erre a célra kifejlesztett protokoll (SeedLink) felhasználásával jutnak el az adatközpontba, ahol a feldolgozás és archiválás történik. Az adatközpontban az adatok átlagos késése a valós időhöz képest 10 másodperc körüli.

### *Rövidperiódusú állomások*

A 11 rövidperiódusú állomás közül tíz teljesen azonos mérőeszközzel van felszerelve. Ezekon Güralp CMG-40T rövidperiódusú, 3 komponenses szeizmométer és Güralp CMG-DM24S3-EAM digitalizáló és adatgyűjtő működik, folyamatos regisztrálással. Egy állomáson (CSKK) az érzékelő három Kinometrics SS-1 rövidperiódusú szeizmométer, az adatgyűjtő itt is Güralp CMG-DM24S3-EAM, szintén folyamatos regisztrálással. Mindegyik rövidperiódusú állomás internet összeköttetéssel rendelkezik.

### *GeoRisk adatközpont ([www.foldrenges.hu](http://www.foldrenges.hu))*

Az összes mérőállomáson regisztrált adatot egy felhő alapú adatközpontban gyűjtjük és dolgozzuk fel. 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 közel valós idejűek.

Az események hullámfázisainak körültekintő manuális kimérése alapján állítjuk össze havonta a fázisadatokat (kimérési adatokat) tartalmazó jelentést. A fázisadatokat 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](http://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 kissé alacsonyabb, a határok környékén kissé magasabb az érzékenységi küszöb. Ez azt jelenti, hogy a lakosság által érzékelt valamennyi rengést a hálózat nagy valószínűséggel detektálja.

## 2.

### SEISMOGRAPH STATIONS IN HUNGARY

In 2015, there were 24 permanent seismograph stations running in Hungary. Ten of the permanent stations were operated by GeoRisk Earthquake Engineering Ltd. and fourteen of them by Geodetic and Geophysical Institute, Research Centre for Astronomy and Earth Sciences, Hungarian Academy of Sciences (MTA CSFK GGI). (Table 2.1 and Fig. 2.1)

#### *Broadband stations*

Thirteen broadband stations (AMBH, BEHE, BSZH, BUD, 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. Four stations (AMBH, EGYH, LTVH and TIH) are equipped with Güralp CMG-3T seismometer and Güralp CMG-DM24-S3-EAM data acquisition module. All stations are accessible via internet in support of near real time data transfer. The average data latency at these stations is typically less than 10 s. SeedLink protocol is used for data collection and all continuous data is archived in the Data Centre.

#### *Short period stations*

Ten of the eleven short period stations 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 Kinometrics short period SS-1 sensors, and Güralp CMG-DM24S3-EAM digital acquisition system for recording and communication with the Data Centre. Continuous data are recorded at each short period station. All stations are accessible via internet.

#### *GeoRisk Data Centre ([www.foldreneges.hu](http://www.foldreneges.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.foldreneges.hu](http://www.foldreneges.hu).

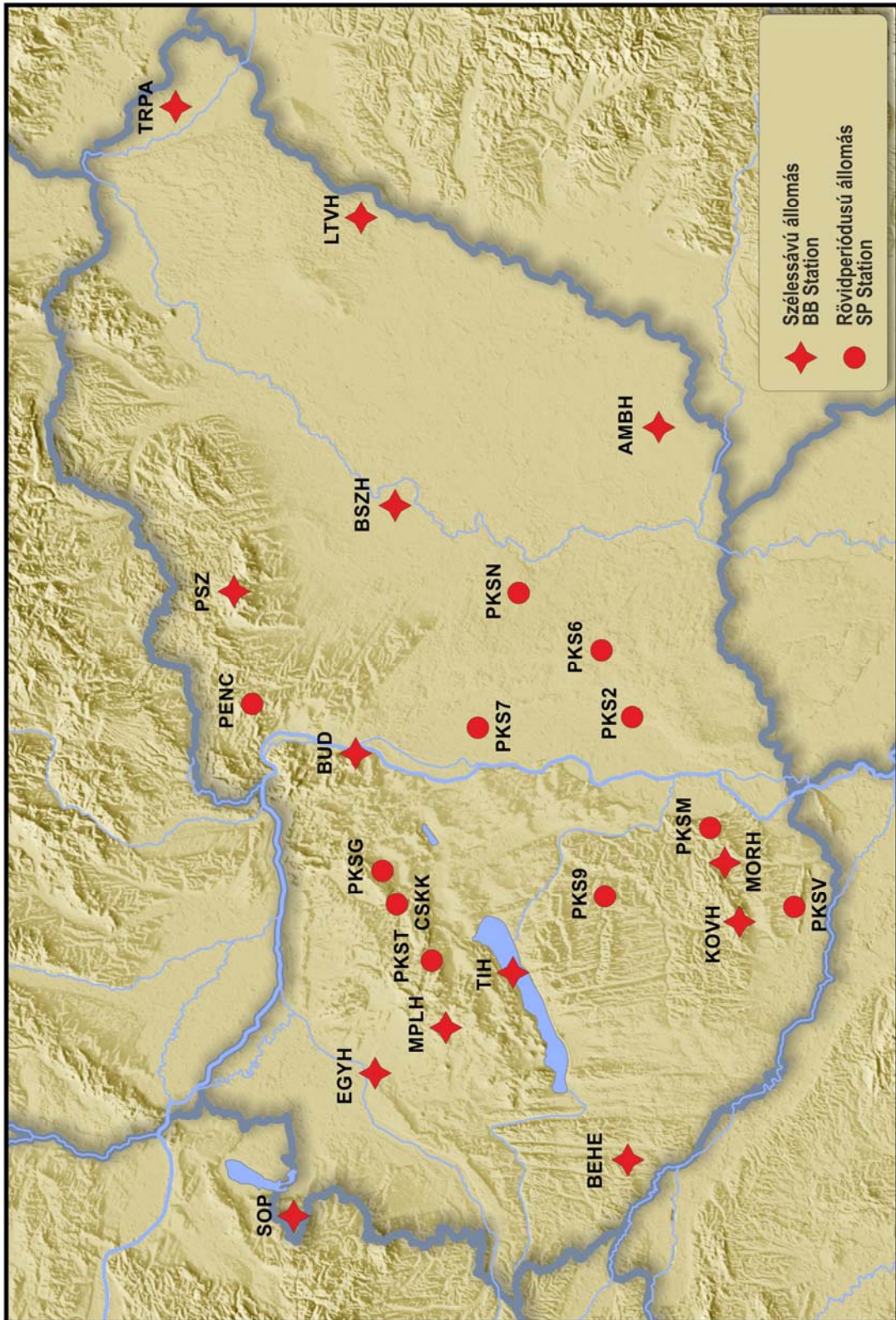
The estimated detection capabilities of the present network with average noise conditions, supposing that at least four stations is needed for origin determination, is typically around 1.0-2.0  $M_L$ , somewhat lower in the middle of the country and a little higher towards the border regions. This means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

## 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)
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 SP	SS-1	CMG-DM24S3- EAM	GGI
EGYH Egyházaskesző	47.4171	17.3318	225	kőzet rock	3C BB	CMG-3T	CMG-DM24S3- EAM	GGI
KOVH* Kővágóotthos	46.0883	18.0999	270	mészkö 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 Mórág	46.2149	18.6435	135	gránit granite	3C BB	STS-2	PS-6-24 + SeisComP PC	GGI
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
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	löss 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 Mórág	46.2119	18.6413	170	gránit granite	3C SP	CMG-40T	CMG-DM24S3- EAM	GR
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	mészkö limestone	3C SP	CMG-40T	CMG-DM24S3- EAM	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

- (1) 3C – 3 komponensű 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 broad band seismometer  
CMG-40T – Güralp rövidperiódusú szeizmométer / Güralp short period seismometer  
CMG-3T – Güralp széles sávú szeizmométer / Güralp broad band seismometer  
SS-1 – Kinematics SS-1 rövidperiódusú szeizmométer / Kinematics SS-1 short period seismometer
  - (3) PS-6-24 – Earth Data digitalizáló / Earth Data digitizer  
CMG-DM24S3-EAM – Güralp adatgyűjtő / Güralp data acquisition module;  
SeisComP – GEOFON Seismological Communication Processor
  - (4) GGI – MTA CSFK Geodéziai és Geofizikai Intézet / Geodetic and Geophysical Institute, MTA CSFK  
GR – GeoRisk Földrengés Mérnöki Iroda Kft. / GeoRisk Earthquake Engineering Ltd.  
MFGI – Magyar Földtani és Geofizikai Intézet / Geological and Geophysical Institute of Hungary
- (\*) Működés kezdete / Open date: 2015/03/03



2.1. ábra Szeizmológiai állomások Magyarországon 2015-ben (részletek: 2.1. Táblázat)

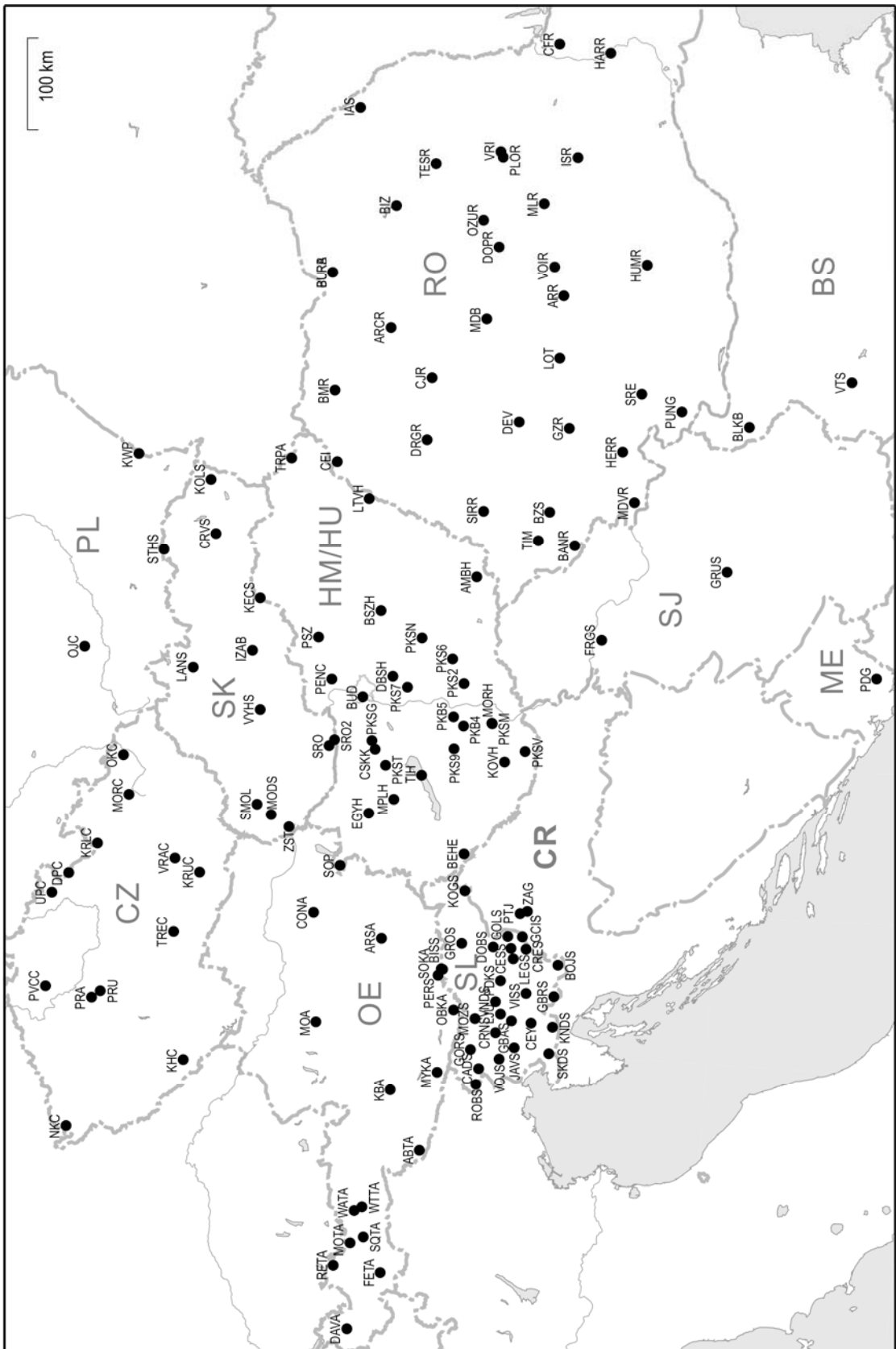
Figure 2.1. Seismograph stations in Hungary in 2015 (See Table 2.1. for details)

*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](http://www.foldrenges.hu)).

*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](http://www.foldrenges.hu)). The present configuration of the *HUN-RENG* virtual seismic network is shown in Table 2.2.



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 üzemeltető hálózat Operating network
CU	CariUSGS Caribbean Network USGS, Golden, CO
CZ	Czech Seismic Network Geophysical Institute, Czech Academy of Sciences
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 Istituto 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 FÉSZKEPARAMÉTEREK

#### A FÖLDRENGÉS FÉSZKEPARAMÉTEREK MEGHATÁROZÁSA

A fészkeparaméterek 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 fészkeparaméterek 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 földregés kéregfázis adatain alapul (Mónus, 1995).

<i>Sebesség (<math>v_p</math>)</i> <i>[km/s]</i>	<i>Mélység</i> <i>[km]</i>	<i>Vastagság</i> <i>[km]</i>	$v_p/v_s$
5,60	0,0	20,0	1,78
6,57	20,0	11,0	
8,02	31,0	$\infty$	

### 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).

<i>Velocity (<math>v_P</math>) [km/s]</i>	<i>Depth [km]</i>	<i>Thickness [km]</i>	$v_P/v_S$
5.60	0.0	20.0	1.78
6.57	20.0	11.0	
8.02	31.0	$\infty$	

## ESEMÉNYLISTA / LIST OF EVENTS

Nap	Kipattanási idő UTC óó pp mp	Földrajzi koordináták Lat Long	Mélys. (km)	ML	I <sub>MAX</sub> (EMS)	Helyszín
Day	Origin time UTC hr mn sec	Geographic coordinates Lat Long	Depth (km)	ML	I <sub>MAX</sub> (EMS)	Locality or Region
JANUÁR / JANUARY, 2015						
01	6:43:23.4	48.029N 19.381E	3	3.7	5-6	Nógrádmarcfal
01	7:08:23.8	48.048N 19.398E	5	1.0	-	Iliny
01	10:27:44.3	48.030N 19.429E	7	1.9	-	Iliny
01	10:45:56.9	48.032N 19.396E	4	3.9	5-6	Iliny
01	10:46:37.9	48.037N 19.419E	9	3.1	-	Iliny
01	11:00:36.8	48.035N 19.409E	5	0.9	-	Iliny
01	11:05:07.3	48.056N 19.411E	1	1.3	-	Csitár
01	11:55:24.8	48.029N 19.421E	5	1.4	-	Iliny
01	14:22:09.4	48.036N 19.390E	2	2.9	3-4	Iliny
01	17:00:53.6	48.040N 19.420E	5	1.5	-	Iliny
01	19:44:35.9	48.028N 19.382E	3	2.7	3-4	Iliny
02	1:44:02.1	48.042N 19.420E	4	1.7	-	Iliny
04	18:29:05.4	47.409N 18.182E	0	-0.1	-	Pusztavám
05	12:09:10.4	46.050N 16.147E	10	1.2	-	Croatia
06	8:05:18.5	47.433N 18.366E	0	0.7	-	Oroszlány (exp.)
06	8:05:48.5	47.457N 18.394E	0	0.8	-	Várgesztes (exp.)
06	8:06:11.8	47.457N 18.389E	0	0.7	-	Várgesztes (exp.)
07	13:48:53.4	48.036N 19.404E	3	2.0	-	Iliny
09	9:22:15.5	47.377N 18.415E	0	0.9	-	Gánt (exp.)
09	9:32:16.5	47.471N 18.382E	0	1.2	-	Várgesztes (exp.)
09	9:32:59.6	47.461N 18.367E	0	1.1	-	Oroszlány (exp.)
09	10:37:27.3	47.115N 18.104E	9	0.8	-	Berhida
12	11:49:16.3	47.434N 18.109E	0	0.4	-	Felsődobos (exp.)
13	8:28:02.0	47.461N 18.390E	0	0.7	-	Várgesztes (exp.)
13	8:28:18.7	47.459N 18.378E	0	0.6	-	Várgesztes (exp.)
13	8:28:46.0	47.495N 18.417E	0	0.8	-	Várgesztes (exp.)
13	8:36:18.6	47.451N 18.393E	0	0.9	-	Várgesztes (exp.)
13	8:36:50.8	47.449N 18.456E	0	0.9	-	Bodmér (exp.)
13	10:38:57.0	45.618N 16.122E	4	2.2	-	Croatia
13	23:34:55.5	47.371N 18.206E	8	0.5	-	Mór
14	8:54:22.5	48.040N 19.426E	5	1.3	-	Iliny
14	23:07:22.2	46.080N 17.032E	16	1.7	-	Croatia
15	13:04:02.3	47.448N 18.075E	0	0.6	-	Bakonysárkány (exp.)
15	14:21:12.7	46.142N 16.431E	10	1.6	-	Croatia
19	6:40:02.6	47.190N 18.212E	0	0.5	-	Csór (exp.)
20	8:38:49.8	47.449N 18.382E	0	0.8	-	Várgesztes (exp.)
20	8:47:18.4	47.433N 18.390E	0	0.8	-	Várgesztes (exp.)
22	12:05:41.5	47.398N 18.133E	0	0.5	-	Nagyveleg (exp.)
23	2:36:47.3	47.913N 16.426E	13	1.0	-	Austria
27	12:00:02.0	47.199N 18.289E	0	0.3	-	Székesfehérvár (exp.)
27	22:35:30.5	48.000N 19.336E	7	1.2	-	Mohora
28	7:39:57.2	47.407N 18.431E	0	0.8	-	Gánt (exp.)
28	7:40:09.1	47.466N 18.446E	0	0.9	-	Várgesztes (exp.)
28	13:02:27.8	47.432N 18.147E	0	0.8	-	Felsődobos (exp.)
28	23:41:21.3	47.820N 17.745E	12	1.2	-	Slovakia
29	5:53:25.0	45.762N 18.889E	2	2.6	-	Croatia
30	8:24:57.7	47.462N 18.219E	0	0.5	-	Bokod (exp.)

## Földrengés paraméterek

## Hypocenter Parameters

31	21:22:47.0	45.859N	16.045E	9	2.6	-	Croatia
FEBRUÁR / FEBRUARY, 2015							
02	23:10:54.4	47.379N	18.135E	5	0.1	-	Nagyveleg
03	8:03:21.7	47.359N	18.489E	0	0.7	-	Csákvár (exp.)
03	8:03:49.4	47.432N	18.368E	0	0.6	-	Oroszlány (exp.)
03	8:04:17.4	47.522N	18.391E	0	0.9	-	Vértessomló (exp.)
04	9:54:08.3	45.998N	18.153E	0	0.9	-	Gyód (exp.)
04	9:55:39.8	45.993N	18.166E	0	0.7	-	Gyód (exp.)
05	8:18:28.9	47.237N	18.187E	0	0.6	-	Bakonykúti (exp.)
05	8:22:00.7	47.446N	18.390E	0	0.8	-	Várgesztes (exp.)
05	8:22:36.6	47.338N	18.413E	0	0.6	-	Zámoly (exp.)
05	8:23:17.5	47.443N	18.409E	0	0.8	-	Várgesztes (exp.)
05	10:20:36.9	47.877N	19.113E	0	1.5	-	Szendehely (exp.)
09	12:10:50.3	47.371N	17.590E	10	1.2	-	Vanyola
11	8:39:30.8	47.448N	18.396E	0	0.7	-	Várgesztes (exp.)
11	8:51:01.3	47.339N	18.457E	0	1.1	-	Lovasberény (exp.)
11	11:12:48.7	47.242N	18.261E	0	0.3	-	Iszcasztgyörgy (exp.)
12	10:06:01.3	47.124N	17.991E	0	1.0	-	Sóly (exp.)
13	7:30:34.4	47.354N	18.163E	7	0.8	-	Nagyveleg
13	7:37:56.5	47.378N	18.145E	6	0.8	-	Nagyveleg
13	12:02:04.2	47.393N	18.644E	10	0.5	-	Tabajd
16	8:24:05.0	47.361N	18.444E	0	0.7	-	Gánt (exp.)
16	8:24:39.5	47.437N	18.392E	0	0.8	-	Várgesztes (exp.)
16	10:29:57.2	48.577N	20.782E	0	1.6	-	Tornanádaska (exp.)
16	17:51:43.0	47.743N	16.143E	4	1.3	-	Austria
17	12:32:18.8	47.217N	18.263E	0	0.4	-	Iszcasztgyörgy (exp.)
17	22:39:09.4	45.874N	17.855E	8	0.8	-	Sellye
18	8:34:28.1	47.355N	18.434E	0	0.8	-	Gánt (exp.)
18	8:34:59.4	47.332N	18.422E	0	0.6	-	Zámoly (exp.)
18	8:42:36.8	47.430N	18.353E	0	0.5	-	Oroszlány (exp.)
23	6:42:44.3	47.147N	18.219E	0	0.5	-	Ósi (exp.)
23	10:15:28.8	48.628N	20.738E	0	1.6	-	Slovakia (exp.)
23	11:13:38.4	47.184N	18.294E	0	0.5	-	Sárkeszi (exp.)
23	11:41:58.3	47.243N	18.262E	10	0.8	-	Iszcasztgyörgy
23	19:09:16.8	46.259N	19.835E	3	1.6	-	Zákányszék
26	9:55:23.3	47.434N	18.410E	0	0.9	-	Várgesztes (exp.)
26	9:55:38.5	47.444N	18.419E	0	0.8	-	Várgesztes (exp.)
27	9:42:27.9	47.442N	18.417E	0	0.7	-	Várgesztes (exp.)
27	9:43:05.8	47.374N	18.429E	0	0.5	-	Gánt (exp.)
27	10:00:38.2	47.447N	18.400E	0	0.8	-	Várgesztes (exp.)
MÁRCIUS / MARCH, 2015							
02	11:00:22.1	47.472N	18.037E	0	0.4	-	Kisbér (exp.)
02	11:07:21.4	47.896N	19.125E	0	1.6	-	Rétság (exp.)
03	8:50:03.8	47.458N	18.464E	0	0.7	-	Bodmér (exp.)
03	8:50:32.1	47.442N	18.416E	0	0.8	-	Várgesztes (exp.)
03	8:50:58.0	47.320N	18.454E	0	0.8	-	Pátka (exp.)
03	10:34:03.9	48.583N	20.782E	0	1.6	-	Slovakia (exp.)
03	11:14:19.9	48.437N	19.317E	0	1.7	-	Slovakia (exp.)
03	12:15:16.8	47.484N	18.042E	0	0.6	-	Kisbér (exp.)
04	6:33:10.9	47.454N	18.216E	0	0.4	-	Bokod (exp.)
04	9:35:06.3	47.126N	18.115E	0	0.7	-	Berhida (exp.)
04	11:59:04.0	47.477N	18.048E	0	0.7	-	Vérteskethely (exp.)
04	12:21:08.2	48.539N	19.350E	0	2.0	-	Slovakia (exp.)
06	7:21:50.0	47.384N	18.484E	0	0.8	-	Csákvár (exp.)
06	11:08:14.9	47.445N	18.107E	0	0.3	-	Bakonysárkány (exp.)
08	22:17:35.9	47.917N	20.793E	1	2.2	-	Emőd
08	22:21:06.9	47.895N	20.763E	2	1.8	-	Vatta
09	8:18:12.1	47.433N	18.382E	0	0.7	-	Várgesztes (exp.)

**Hypocenter Parameters**

**Földrengés paraméterek**

09	8:18:43.1	47.439N	18.371E	0	0.6	-	Oroszlány (exp.)
09	9:55:43.6	47.886N	20.799E	1	2.3	-	Vatta
10	8:50:07.6	47.440N	18.382E	0	0.7	-	Várgesztes (exp.)
10	8:50:37.5	47.448N	18.384E	0	0.6	-	Várgesztes (exp.)
10	8:51:09.8	47.435N	18.377E	0	0.7	-	Várgesztes (exp.)
10	8:54:24.3	47.455N	18.374E	0	0.7	-	Várgesztes (exp.)
10	12:46:40.5	47.465N	18.039E	0	0.5	-	Vérteskethely (exp.)
11	9:54:24.1	46.161N	18.285E	0	0.4	-	Zobákpuszta (exp.)
11	12:16:06.5	47.454N	18.071E	0	0.5	-	Bakonysárkány (exp.)
12	7:52:54.0	47.418N	18.403E	0	0.5	-	Gánt (exp.)
12	7:53:06.5	47.442N	18.394E	0	0.8	-	Várgesztes (exp.)
12	8:23:18.0	46.174N	18.295E	0	0.6	-	Zobákpuszta (exp.)
12	19:11:56.4	46.114N	16.646E	10	1.4	-	Croatia
17	8:03:00.9	45.857N	18.411E	0	1.2	-	Nagyharsány (exp.)
17	12:15:12.1	47.473N	18.050E	0	0.5	-	Vérteskethely (exp.)
18	12:20:38.7	47.445N	18.086E	0	0.4	-	Bakonysárkány (exp.)
19	8:32:37.1	47.441N	18.374E	0	0.8	-	Oroszlány (exp.)
19	8:38:19.3	47.449N	18.447E	0	1.0	-	Várgesztes (exp.)
19	8:38:49.4	47.439N	18.408E	0	0.7	-	Várgesztes (exp.)
19	11:43:29.3	48.559N	19.347E	0	1.9	-	Slovakia (exp.)
20	15:52:48.1	47.375N	18.037E	9	0.5	-	Súr
21	12:13:30.1	48.370N	19.834E	0	1.5	-	Slovakia (exp.)
21	20:07:22.7	47.319N	18.178E	9	0.2	-	Balinka
24	18:45:50.7	47.551N	18.900E	10	1.4	-	Nagykovács
25	8:12:28.1	47.433N	18.364E	0	0.8	-	Oroszlány (exp.)
25	10:16:26.0	46.175N	18.283E	0	0.6	-	Zobákpuszta (exp.)
26	6:10:41.8	47.409N	18.228E	0	0.6	-	Pusztavám
26	12:36:49.5	47.109N	17.976E	10	1.3	-	Kádárta
27	2:53:40.9	47.411N	18.238E	10	-0.4	-	Pusztavám
27	11:22:53.6	46.009N	18.361E	0	0.5	-	Lothárd (exp.)
27	12:13:29.1	48.647N	20.732E	0	1.9	-	Slovakia (exp.)
29	15:39:16.7	48.073N	20.886E	1	3.1	5	Alsószolca
30	7:54:40.3	47.360N	18.429E	0	1.2	-	Gánt (exp.)
30	8:10:43.0	47.459N	18.390E	0	1.0	-	Várgesztes (exp.)
30	9:36:26.5	48.548N	19.331E	0	2.0	-	Slovakia (exp.)
31	9:17:29.8	45.870N	18.410E	0	0.6	-	Villány (exp.)
31	9:22:04.4	45.836N	18.429E	0	0.8	-	Nagyharsány (exp.)

**ÁPRILIS / APRIL, 2015**

01	0:34:34.7	48.014N	20.837E	10	2.0	-	Mályi
01	5:30:17.7	47.296N	18.341E	0	0.5	-	Magyaralmás (exp.)
01	6:37:09.6	47.175N	18.229E	0	0.5	-	Csór (exp.)
01	6:42:46.3	47.210N	18.179E	0	0.4	-	Bakonykúti (exp.)
01	9:21:52.6	47.329N	18.320E	6	0.6	-	Söréd
01	9:25:52.7	47.352N	18.290E	4	1.2	-	Csákberény
01	10:56:21.2	46.020N	18.054E	0	0.6	-	Bicsérd (exp.)
01	14:39:23.3	47.493N	18.705E	1	1.2	-	Herceghalom
02	7:56:32.6	47.448N	18.419E	0	0.8	-	Várgesztes (exp.)
02	11:08:48.3	47.194N	18.296E	0	0.5	-	Székesfehérvár (exp.)
02	17:10:20.5	46.151N	16.785E	10	1.7	-	Croatia
08	9:25:39.4	48.892N	20.511E	0	1.9	-	Slovakia (exp.)
09	8:48:56.1	46.171N	18.297E	0	0.6	-	Zobákpuszta (exp.)
09	10:18:29.7	47.191N	18.310E	0	0.2	-	Székesfehérvár (exp.)
09	11:09:21.0	46.135N	18.053E	12	0.7	-	Hetvehely
10	8:56:58.2	45.978N	18.628E	0	0.4	-	Mohács (exp.)
11	8:55:16.7	45.528N	17.961E	14	1.0	-	Croatia
13	9:38:30.2	47.402N	18.034E	0	0.4	-	Aka (exp.)
14	9:56:59.4	48.646N	20.732E	0	1.7	-	Slovakia (exp.)
15	7:14:54.9	47.180N	18.206E	0	0.4	-	Csór (exp.)
15	7:18:00.1	47.158N	18.243E	0	0.4	-	Nádasdladány (exp.)

**Földrengés paraméterek**

**Hypocenter Parameters**

15	9:51:07.3	45.799N	18.630E	0	0.9	-	Croatia (exp.)
15	12:41:32.8	47.085N	18.008E	0	1.0	-	Litér (exp.)
16	21:38:59.1	47.380N	18.230E	8	-0.3	-	Mór
18	1:19:06.3	47.322N	18.204E	9	0.8	-	Bodajk
21	19:25:21.7	46.994N	17.496E	14	0.9	-	Nyirád
23	11:28:17.4	47.181N	18.305E	0	0.5	-	Sárkeszi (exp.)
28	6:28:24.4	47.332N	18.497E	0	0.8	-	Lovasberény (exp.)
29	10:08:41.6	47.223N	18.277E	0	0.5	-	Iszcasztgyörgy (exp.)
29	10:46:25.6	46.119N	18.088E	0	0.7	-	Abaliget (exp.)
30	10:31:45.2	46.959N	17.761E	0	1.3	-	Pécsely (exp.)

**MÁJUS / MAY, 2015**

04	7:04:18.0	47.463N	18.405E	0	0.5	-	Várgesztes (exp.)
04	9:10:12.2	47.868N	19.422E	0	1.1	-	Bercel (exp.)
05	9:30:34.6	48.552N	19.382E	0	1.9	-	Slovakia (exp.)
05	10:12:05.2	47.222N	18.280E	0	0.3	-	Iszcasztgyörgy (exp.)
06	11:41:01.2	48.357N	19.840E	0	1.6	-	Slovakia (exp.)
07	9:22:10.3	48.632N	20.584E	0	1.6	-	Slovakia (exp.)
07	10:07:46.9	48.456N	19.534E	20	1.2	-	Slovakia
07	12:37:24.8	47.119N	17.931E	10	0.9	-	Kádárta
08	8:57:28.9	46.147N	18.309E	0	0.4	-	Vasas (exp.)
09	8:51:23.0	46.184N	18.283E	10	0.6	-	Zobákpusztá
11	5:00:27.1	47.942N	22.928E	5	3.2	5	Garbolc
11	11:35:09.8	47.201N	18.292E	2	1.1	-	Székesfehérvár
13	6:52:00.9	47.354N	18.433E	0	1.2	-	Gánt (exp.)
13	6:52:16.6	47.452N	18.420E	0	1.2	-	Várgesztes (exp.)
13	23:33:58.4	47.361N	18.217E	5	0.0	-	Mór
14	6:43:08.1	47.164N	18.226E	0	0.4	-	Ósi (exp.)
14	6:46:33.1	47.180N	18.228E	0	0.2	-	Csór (exp.)
14	19:21:40.9	47.361N	18.125E	7	0.1	-	Nagyveleg
15	11:12:16.0	48.485N	19.574E	0	1.2	-	Slovakia
15	23:46:35.3	47.291N	18.167E	9	-0.1	-	Balinka
17	23:17:45.4	47.370N	18.237E	7	-0.6	-	Mór
17	23:38:41.4	47.309N	18.290E	7	-0.2	-	Söréd
19	5:46:41.8	47.130N	18.215E	0	0.5	-	Ósi (exp.)
19	10:03:14.8	47.186N	18.324E	0	0.7	-	Székesfehérvár (exp.)
19	10:04:30.2	45.508N	18.001E	10	1.1	-	Croatia
20	6:32:36.2	47.444N	18.432E	0	0.5	-	Várgesztes (exp.)
22	8:42:14.5	47.102N	18.010E	10	1.1	-	Litér
24	13:05:51.0	47.138N	18.219E	0	0.6	-	Ósi (exp.)
24	14:30:53.2	47.531N	18.118E	2	1.2	-	Ete
26	7:05:32.0	47.435N	18.390E	0	1.1	-	Várgesztes (exp.)
26	9:09:30.8	47.188N	18.330E	0	0.8	-	Székesfehérvár (exp.)
26	10:20:34.2	46.001N	18.365E	0	0.4	-	Lothárd (exp.)
27	7:53:01.6	45.866N	18.401E	0	0.6	-	Kisharsány (exp.)
27	12:18:39.8	47.057N	18.021E	0	1.1	-	Balatonfűzfő (exp.)
28	4:22:07.5	48.797N	21.984E	2	2.4	-	Slovakia
28	6:50:34.2	47.443N	18.466E	0	0.6	-	Bodmér (exp.)
28	6:51:28.9	47.444N	18.379E	0	0.6	-	Várgesztes (exp.)
28	11:27:56.4	47.185N	18.261E	0	0.3	-	Csór (exp.)
29	11:45:15.0	47.210N	18.203E	0	0.5	-	Csór (exp.)
30	17:18:00.9	47.685N	16.177E	4	1.9	-	Austria
31	6:50:58.7	47.351N	18.140E	8	0.4	-	Nagyveleg

**JÚNIUS / JUNE, 2015**

02	9:22:50.2	47.556N	18.481E	0	0.9	-	Tatabánya (exp.)
04	6:26:06.5	47.470N	18.436E	0	0.6	-	Várgesztes (exp.)
04	7:13:55.3	46.036N	19.118E	10	1.5	-	Gara
05	7:35:02.3	45.853N	18.412E	0	0.8	-	Nagyharsány (exp.)
05	14:04:50.3	46.652N	22.489E	10	2.1	-	Romania

**Hypocenter Parameters**
**Földrengés paraméterek**

08	6:18:40.9	47.981N	19.987E	0	1.4	-	Mátramindszent (exp.)
08	6:56:28.7	47.330N	18.416E	0	1.0	-	Zámoly (exp.)
08	6:56:46.2	47.449N	18.412E	0	1.0	-	Várgesztes (exp.)
10	7:03:18.8	47.158N	18.231E	0	0.5	-	Ósi (exp.)
12	5:58:05.5	47.287N	18.355E	0	0.5	-	Magyaralmás (exp.)
13	17:46:35.5	48.089N	21.664E	10	2.0	-	Buj
14	5:13:03.6	47.116N	17.683E	0	0.6	-	Városlód (exp.)
15	9:24:30.5	47.884N	19.212E	0	1.5	-	Felsőpetény (exp.)
15	9:39:42.3	48.432N	17.240E	6	2.1	-	Slovakia
16	11:22:42.8	47.143N	17.959E	14	1.2	-	Gyulafirátót
16	23:16:39.8	47.416N	18.219E	8	0.9	-	Pusztavám
16	23:28:03.6	47.335N	18.279E	10	-0.1	-	Csákberény
17	0:05:32.5	47.340N	18.271E	10	-0.6	-	Csákberény
17	2:15:13.4	47.344N	18.274E	10	0.0	-	Csákberény
17	2:31:57.3	47.361N	18.256E	9	-0.2	-	Csókakó
18	9:05:01.3	45.964N	18.644E	0	0.7	-	Mohács (exp.)
18	10:45:25.3	47.207N	18.288E	0	0.2	-	Iszkasztgyörgy (exp.)
18	20:46:26.8	47.334N	18.278E	10	0.4	-	Söréd
18	23:28:25.4	47.333N	18.282E	10	0.2	-	Söréd
20	21:51:00.6	47.305N	18.161E	8	0.4	-	Balinka
22	21:18:07.6	47.318N	18.469E	0	0.4	-	Pátka
22	21:18:25.0	47.317N	18.468E	0	0.3	-	Pátka
23	6:31:40.0	47.466N	18.439E	0	1.0	-	Várgesztes (exp.)
23	9:10:30.7	45.789N	18.481E	0	0.8	-	Croatia (exp.)
23	10:33:23.2	47.226N	18.288E	0	0.0	-	Iszkasztgyörgy (exp.)
23	10:34:16.3	47.202N	18.283E	0	0.2	-	Csór (exp.)
24	6:03:50.2	47.130N	18.226E	0	0.5	-	Nádasdladány (exp.)
24	10:55:56.3	47.019N	17.778E	0	1.5	-	Tótvázsony (exp.)
25	5:52:33.5	47.159N	18.218E	0	0.3	-	Ósi (exp.)
25	6:09:50.2	47.450N	18.396E	0	0.8	-	Várgesztes (exp.)
25	7:28:52.1	47.442N	18.396E	0	1.2	-	Várgesztes (exp.)
25	10:04:55.8	47.164N	18.312E	0	0.4	-	Sárkeszi (exp.)
25	21:16:31.7	47.250N	18.231E	5	0.4	-	Kincsesbánya
25	21:17:32.9	47.271N	18.211E	10	0.2	-	Kincsesbánya

**JÚLIUS / JULY, 2015**

03	8:25:22.2	45.503N	17.973E	0	1.9	-	Croatia (exp.)
06	6:31:42.4	47.450N	18.393E	0	0.9	-	Várgesztes (exp.)
06	8:11:43.1	48.078N	20.663E	0	1.4	-	Bükksztlászló (exp.)
06	9:05:38.9	48.603N	20.727E	0	1.6	-	Slovakia (exp.)
06	16:01:10.8	47.118N	17.952E	16	1.1	-	Kádárta
07	6:17:43.4	47.468N	18.443E	0	1.2	-	Várgesztes (exp.)
08	5:40:32.0	47.284N	18.360E	0	0.4	-	Magyaralmás (exp.)
08	6:41:05.9	47.285N	18.340E	0	0.6	-	Magyaralmás (exp.)
08	7:44:56.2	45.857N	18.416E	0	1.3	-	Nagyharsány (exp.)
08	8:54:33.7	47.184N	18.313E	0	0.6	-	Székesfehérvár (exp.)
13	8:22:42.8	47.891N	19.395E	0	1.2	-	Bercel (exp.)
13	9:07:57.5	47.237N	18.578E	0	0.9	-	Sukoró (exp.)
14	6:42:00.8	47.232N	18.207E	0	0.3	-	Bakonykúti (exp.)
15	3:58:55.7	48.128N	22.409E	2	2.2	-	Jánd
16	7:10:43.3	47.425N	18.397E	0	0.7	-	Gánt (exp.)
16	10:22:32.7	47.181N	18.302E	0	0.4	-	Sárkeszi (exp.)
17	5:56:04.2	45.997N	18.183E	0	0.9	-	Gyód (exp.)
19	9:27:17.4	46.930N	21.532E	6	2.6	-	Zsadány
19	21:46:37.2	48.082N	22.352E	1	1.8	-	Olcsvaapáti
20	8:24:08.1	47.399N	18.368E	0	0.9	-	Gánt (exp.)
20	20:11:52.0	47.744N	16.194E	4	1.2	-	Austria
21	3:09:25.6	45.923N	18.573E	3	0.4	-	Töttös
21	9:06:32.0	47.173N	18.310E	0	0.4	-	Sárkeszi (exp.)
21	13:36:18.9	48.040N	20.861E	1	2.1	-	Kistokaj



**Földrengés paraméterek**

**Hypocenter Parameters**

22	22:22:41.6	47.338N	17.425E	1	0.6	-	Borsosgyőr
24	8:08:15.9	48.926N	21.024E	0	1.7	-	Slovakia (exp.)
24	8:48:14.8	47.854N	19.100E	0	1.5	-	Szendehely (exp.)
25	9:12:56.8	46.182N	18.295E	0	0.5	-	Zobákpuszta (exp.)
28	9:09:38.2	48.613N	20.767E	0	1.2	-	Slovakia (exp.)
30	13:28:32.8	48.361N	19.846E	0	2.0	-	Slovakia (exp.)
30	15:41:27.5	47.390N	18.224E	2	0.3	-	Mór
AUGUSZTUS / AUGUST, 2015							
02	11:45:55.2	45.852N	18.209E	11	0.4	-	Harkány
02	23:09:19.7	47.450N	18.434E	11	1.2	-	Várgesztes
03	9:17:04.0	46.174N	18.292E	0	0.5	-	Zobákpuszta (exp.)
03	13:08:22.5	46.005N	18.084E	0	0.5	-	Aranyosgyárdány (exp.)
04	5:40:38.2	47.290N	18.347E	0	0.7	-	Magyaralmás (exp.)
04	9:24:12.4	47.196N	18.287E	0	0.6	-	Sárkeszi (exp.)
05	7:06:39.4	47.456N	18.402E	0	0.9	-	Várgesztes (exp.)
05	8:39:10.2	47.837N	19.443E	0	0.9	-	Ványarc (exp.)
05	12:17:17.2	48.059N	20.110E	1	2.5	5	Váraszó
06	5:21:24.7	47.376N	19.947E	10	1.8	-	Portelek
06	6:09:43.8	47.427N	18.386E	0	1.1	-	Gánt (exp.)
06	7:01:51.6	47.445N	18.373E	0	0.9	-	Oroszlány (exp.)
06	8:16:29.4	47.229N	18.289E	0	0.8	-	Moha (exp.)
07	5:33:28.1	47.291N	18.350E	0	0.6	-	Magyaralmás (exp.)
07	8:23:56.2	47.071N	18.050E	0	1.3	-	Balatonfűzfő (exp.)
07	8:40:32.1	46.076N	18.337E	0	0.7	-	Bogád (exp.)
07	11:26:08.8	47.416N	18.702E	0	1.2	-	Pusztazámor (exp.)
10	21:51:04.2	47.276N	18.330E	0	0.8	-	Magyaralmás
11	6:33:05.7	47.980N	19.958E	0	1.5	-	Mátramindszent (exp.)
11	8:43:11.4	47.186N	18.314E	0	0.6	-	Székesfehérvár (exp.)
11	8:44:28.9	47.181N	18.304E	0	0.3	-	Sárkeszi (exp.)
12	7:57:16.5	47.113N	17.963E	0	1.0	-	Kádárta (exp.)
12	13:47:36.5	47.565N	18.503E	7	1.1	-	Tarján
13	8:14:39.3	46.058N	18.345E	0	0.7	-	Magyarsarlós (exp.)
13	9:33:08.3	48.886N	20.485E	0	2.3	-	Slovakia (exp.)
13	10:14:16.3	48.655N	20.858E	0	1.5	-	Slovakia (exp.)
14	2:58:26.2	46.140N	19.740E	10	1.1	-	Serbia
14	6:38:04.3	47.573N	18.444E	10	0.9	-	Tatabánya
15	15:33:25.4	47.883N	16.384E	0	1.9	-	Austria
15	15:35:30.9	47.873N	16.391E	3	1.7	-	Austria
15	15:36:19.5	47.832N	16.303E	8	0.7	-	Austria
15	15:37:58.5	47.829N	16.292E	0	0.5	-	Austria
15	15:53:39.2	47.835N	16.295E	4	0.4	-	Austria
15	15:57:28.6	47.901N	16.396E	5	1.7	-	Austria
15	16:11:15.0	47.876N	16.383E	2	1.8	-	Austria
15	16:12:25.5	47.890N	16.369E	3	0.6	-	Austria
15	17:03:08.0	47.854N	16.360E	1	1.2	-	Austria
15	17:34:44.8	47.856N	16.422E	4	1.4	-	Austria
15	17:35:30.4	47.904N	16.378E	5	1.6	-	Austria
15	17:40:45.5	47.917N	16.412E	1	1.6	-	Austria
15	17:59:50.1	47.855N	16.378E	6	1.7	-	Austria
15	18:43:13.6	47.891N	16.374E	4	1.3	-	Austria
15	21:32:44.6	47.892N	16.404E	0	1.5	-	Austria
16	2:18:40.1	47.905N	16.399E	8	1.3	-	Austria
18	11:05:37.4	47.201N	18.292E	0	0.5	-	Székesfehérvár (exp.)
20	3:09:27.4	48.003N	19.346E	10	0.9	-	Mohora
21	1:32:58.3	47.327N	18.299E	10	-0.1	-	Söréd
21	11:24:09.6	47.392N	19.926E	2	1.8	-	Portelek
25	4:17:23.7	47.298N	18.191E	10	0.3	-	Balinka
26	0:32:24.2	47.219N	18.287E	0	0.6	-	Iszkaszentgyörgy
26	7:23:50.8	47.432N	18.389E	0	1.3	-	Várgesztes (exp.)

## Hypocenter Parameters

## Földrengés paraméterek

27	7:18:43.5	47.460N	18.385E	0	1.2	-	Várgesztes (exp.)
27	9:06:05.4	48.377N	19.844E	0	1.2	-	Slovakia (exp.)
27	9:11:19.5	47.189N	18.293E	0	0.5	-	Sárkeszi (exp.)
27	13:53:10.3	48.312N	19.858E	0	1.6	-	Slovakia (exp.)
28	7:30:07.7	47.985N	19.923E	0	0.9	-	Szuha (exp.)
30	16:37:34.3	47.365N	18.249E	8	0.7	-	Mór
SZEPTEMBER / SEPTEMBER, 2015							
01	7:09:14.1	47.475N	18.383E	0	0.9	-	Várgesztes (exp.)
01	8:37:07.7	47.282N	18.363E	0	0.6	-	Magyaralmás (exp.)
01	9:10:35.5	47.216N	18.283E	0	0.5	-	Iszcasztgyörgy (exp.)
06	22:09:28.4	47.511N	18.789E	10	1.9	-	Páty
07	8:43:39.7	48.626N	20.748E	0	1.3	-	Slovakia (exp.)
08	9:52:37.2	47.199N	18.295E	0	0.2	-	Székesfehérvár (exp.)
09	9:16:44.7	45.842N	18.460E	1	0.5	-	Villány
09	10:18:56.2	48.284N	21.186E	12	1.4	-	Abaújszántó
11	19:41:53.7	47.057N	18.127E	10	0.7	-	Balatonkenese
15	6:35:52.8	47.435N	18.428E	0	0.9	-	Várgesztes (exp.)
15	9:33:17.4	47.078N	18.000E	0	1.1	-	Litér (exp.)
15	18:41:36.9	45.784N	16.024E	6	2.8	-	Croatia
15	19:09:33.5	45.861N	18.371E	2	0.8	-	Kisharsány
16	10:51:00.8	46.136N	18.028E	3	0.7	-	Hetvehely
16	15:49:37.6	45.545N	17.249E	7	1.6	-	Croatia
17	9:22:44.7	47.192N	18.294E	0	0.4	-	Sárkeszi (exp.)
18	5:05:23.3	47.288N	18.349E	0	0.5	-	Magyaralmás (exp.)
18	6:07:20.3	47.284N	18.333E	0	0.7	-	Magyaralmás (exp.)
18	8:07:02.1	47.104N	18.026E	0	1.1	-	Királyszttistván(exp.)
18	13:05:58.5	47.308N	18.328E	0	0.2	-	Magyaralmás (exp.)
22	6:44:42.0	47.435N	18.388E	0	0.8	-	Várgesztes (exp.)
24	9:48:26.4	45.859N	17.272E	0	1.4	-	Croatia (exp.)
24	17:07:44.5	47.182N	18.198E	0	0.9	-	Csór (exp.)
25	7:02:14.7	45.868N	18.413E	0	0.6	-	Villány (exp.)
25	9:35:12.6	46.048N	18.351E	0	0.5	-	Magyarsarlós (exp.)
28	9:01:13.5	47.096N	17.989E	0	1.1	-	Litér (exp.)
28	9:39:56.5	47.067N	18.118E	0	1.2	-	Papkeszi (exp.)
28	9:59:07.0	47.557N	18.497E	0	0.9	-	Szárliget (exp.)
28	10:17:34.3	48.534N	19.366E	0	1.6	-	Slovakia (exp.)
28	22:14:22.7	48.129N	19.833E	12	0.7	-	Zagyvaróna
29	10:02:23.0	47.199N	18.305E	0	0.2	-	Székesfehérvár (exp.)
29	14:18:38.1	47.321N	18.336E	10	0.7	-	Zámoly
29	22:58:22.2	47.328N	18.346E	10	0.0	-	Zámoly
30	2:22:54.7	47.291N	18.377E	7	0.6	-	Zámoly
30	6:23:55.9	47.260N	18.392E	6	1.1	-	Sárkeresztes
OKTÓBER / OCTOBER, 2015							
02	9:20:48.9	47.179N	18.315E	0	0.4	-	Székesfehérvár (exp.)
02	10:17:12.6	48.365N	19.840E	0	1.6	-	Slovakia (exp.)
02	13:33:22.4	46.109N	18.029E	0	0.8	-	Bükkösd (exp.)
06	9:50:30.9	47.140N	18.319E	0	0.6	-	Úrhida (exp.)
06	11:47:10.1	45.970N	18.089E	0	0.7	-	Baksa (exp.)
07	8:58:46.7	48.622N	20.732E	0	1.6	-	Slovakia (exp.)
08	9:18:28.7	48.642N	20.764E	0	1.6	-	Slovakia (exp.)
08	11:21:24.7	45.732N	18.187E	14	0.9	-	Croatia
08	12:44:43.6	48.539N	19.395E	0	1.4	-	Slovakia (exp.)
09	7:14:45.7	48.399N	19.101E	0	1.6	-	Slovakia (exp.)
13	6:58:13.5	47.428N	18.387E	0	1.0	-	Gánt (exp.)
13	20:30:56.7	46.148N	16.642E	10	1.5	-	Croatia
17	11:29:10.1	48.642N	20.149E	1	2.1	-	Slovakia
17	16:56:40.2	45.727N	18.122E	10	0.9	-	Croatia
20	13:07:33.9	46.979N	19.309E	10	1.9	-	Kunadacs

## Földrengés paraméterek

## Hypocenter Parameters

21	8:38:18.6	46.171N	18.308E	0	0.5	-	Zobákpuszta (exp.)
21	9:11:15.5	47.167N	18.310E	0	0.3	-	Sárkeszi (exp.)
21	11:57:42.7	48.542N	20.858E	0	1.9	-	Hidvégardó (exp.)
21	14:29:48.9	47.091N	18.069E	0	1.2	-	Papkeszi (exp.)
21	19:31:34.4	47.291N	17.571E	1	0.8	-	Nagytevel
23	10:03:45.4	48.548N	19.380E	0	1.8	-	Slovakia (exp.)
24	18:52:35.9	46.945N	18.125E	12	1.1	-	Balatonvilágos
25	6:46:03.7	47.084N	17.739E	10	0.7	-	Szentgál
26	11:49:04.2	47.786N	16.145E	4	2.1	-	Austria
27	10:42:14.1	47.300N	18.416E	0	0.9	-	Zámoly (exp.)
27	12:04:46.0	47.870N	19.411E	0	1.3	-	Bercel (exp.)
28	4:37:14.9	45.818N	18.199E	12	1.1	-	Drávaszabolcs
28	10:14:17.1	47.192N	18.282E	0	0.5	-	Sárkeszi (exp.)
28	10:44:29.3	45.906N	18.894E	10	2.2	-	Croatia
28	13:42:21.7	45.642N	18.073E	10	1.2	-	Croatia
31	21:46:15.1	47.271N	18.376E	0	0.1	-	Sárkeresztés

### NOVEMBER / NOVEMBER, 2015

03	11:48:15.9	47.361N	18.370E	12	2.5	-	Gánt
03	12:11:59.4	47.321N	18.431E	0	0.7	-	Zámoly
03	12:24:21.1	47.408N	18.403E	11	0.8	-	Gánt
03	13:02:24.0	48.791N	19.414E	0	3.2	-	Slovakia
03	13:13:54.5	47.327N	18.422E	3	0.6	-	Zámoly
04	0:26:26.8	47.326N	18.392E	5	0.4	-	Zámoly
04	3:42:02.7	47.354N	18.423E	10	1.0	-	Gánt
05	14:46:07.7	47.344N	18.426E	8	1.1	-	Zámoly
06	8:16:46.1	47.332N	18.413E	0	0.2	-	Zámoly
06	13:49:59.2	47.326N	18.433E	1	0.3	-	Zámoly
06	23:13:31.8	47.354N	18.377E	10	1.6	-	Gánt
06	23:17:50.8	47.325N	18.421E	0	0.3	-	Zámoly
06	23:33:12.4	46.093N	16.384E	11	2.6	-	Croatia
08	3:20:35.0	47.639N	20.269E	1	1.6	-	Heves
08	19:49:18.0	46.465N	16.202E	14	1.5	-	Slovenia
08	22:58:55.3	45.866N	16.035E	10	1.7	-	Croatia
09	4:11:17.2	47.322N	18.428E	1	0.3	-	Zámoly
09	12:23:03.6	46.024N	18.105E	0	0.7	-	Zók (exp.)
10	9:18:53.0	47.104N	17.985E	0	0.9	-	Litér (exp.)
11	11:02:05.1	47.215N	18.303E	0	0.9	-	Moha (exp.)
12	10:03:27.9	47.218N	18.316E	0	0.7	-	Moha (exp.)
13	9:42:31.2	48.637N	20.714E	0	1.6	-	Slovakia (exp.)
17	7:58:45.0	47.332N	18.462E	0	1.1	-	Lovasberény (exp.)
18	9:35:05.9	47.185N	18.221E	0	0.4	-	Csór (exp.)
19	10:54:41.0	47.212N	18.279E	0	0.2	-	Iszcasztgyörgy (exp.)
19	15:39:35.3	47.503N	18.629E	12	2.6	-	Bicske
22	2:37:51.9	47.328N	18.342E	10	-0.3	-	Zámoly
22	3:09:08.3	47.317N	18.348E	10	0.1	-	Zámoly
23	10:05:11.6	47.870N	19.427E	0	1.2	-	Bercel (exp.)
23	11:35:10.9	47.268N	18.340E	0	0.9	-	Sárkeresztés (exp.)
23	11:42:57.2	46.083N	18.104E	5	0.2	-	Kővágótóttós
23	22:44:07.5	46.745N	19.301E	8	1.1	-	Csengőd
24	7:42:51.5	47.428N	18.425E	0	0.9	-	Gánt (exp.)
24	9:08:10.5	46.076N	18.340E	0	0.5	-	Bogád (exp.)
24	10:51:53.0	47.190N	18.287E	0	0.4	-	Sárkeszi (exp.)
25	10:56:20.8	47.180N	18.316E	0	0.5	-	Székesfehérvár (exp.)
26	8:32:52.7	45.855N	18.419E	0	0.8	-	Nagyharsány (exp.)
29	14:51:42.7	47.355N	18.252E	11	1.8	-	Csókakő
30	12:46:25.6	46.054N	18.136E	0	0.8	-	Cserkút (exp.)

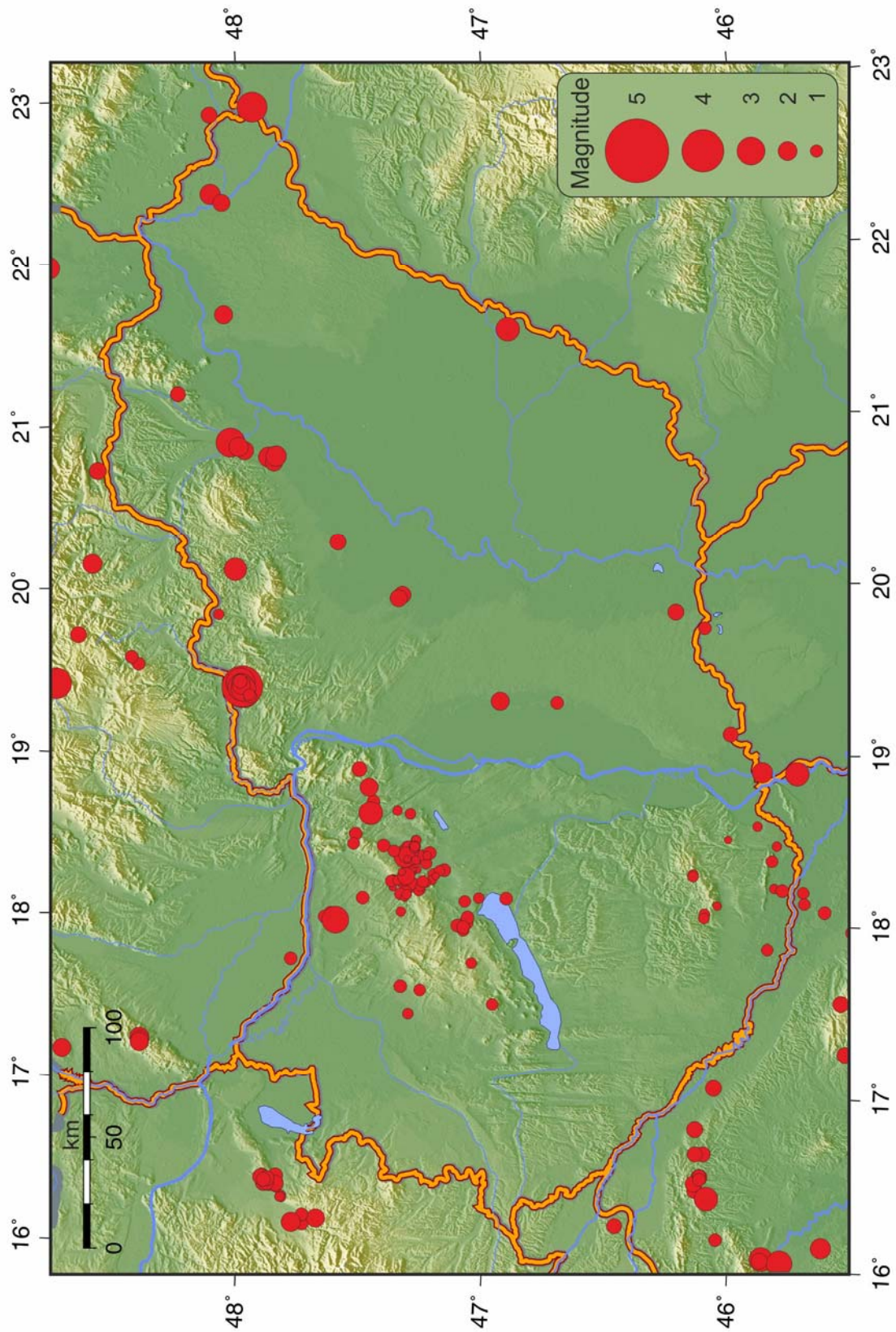
### DECEMBER / DECEMBER, 2015

02	7:54:22.4	45.873N	18.402E	0	1.0	-	Kisharsány (exp.)
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## Hypocenter Parameters

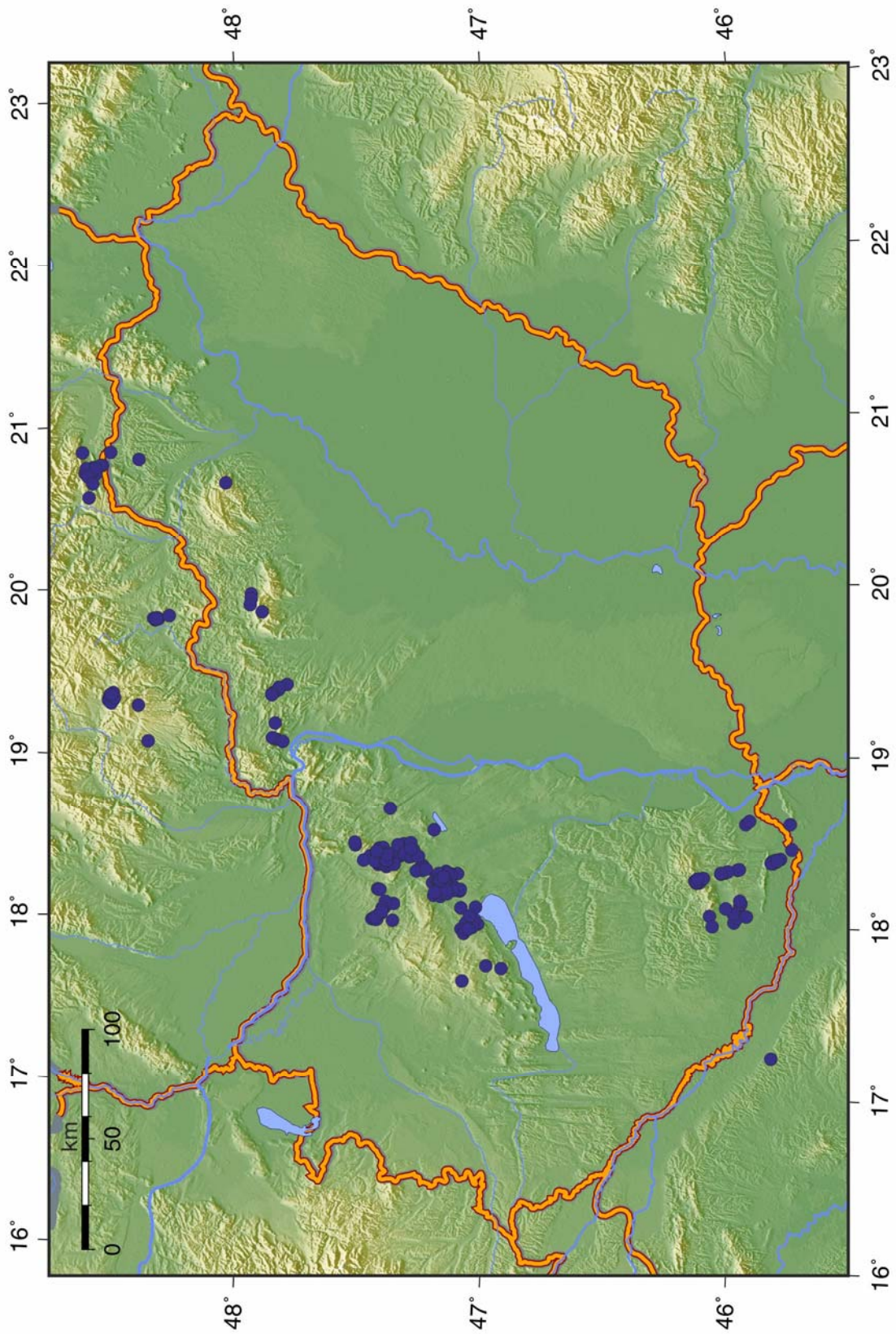
## Földrengés paraméterek

02	9:51:54.3	47.214N	18.278E	0	0.4	-	Iszkasztgyörgy (exp.)
02	10:13:10.9	47.936N	19.879E	0	1.6	-	Mátraszentimre (exp.)
03	10:04:17.1	48.429N	17.226E	1	1.9	-	Slovakia
03	13:38:58.5	47.093N	17.992E	0	1.0	-	Litér (exp.)
04	6:36:36.1	46.125N	16.508E	10	1.7	-	Croatia
04	12:49:04.9	45.570N	17.546E	12	1.7	-	Croatia
07	9:13:04.8	47.470N	18.447E	0	1.1	-	Várgesztes (exp.)
08	9:21:08.3	47.898N	19.390E	0	1.5	-	Becske (exp.)
08	9:42:34.7	46.184N	18.276E	10	0.7	-	Komló
08	10:14:21.3	47.196N	18.295E	0	0.1	-	Székesfehérvár (exp.)
08	11:19:27.2	48.616N	20.727E	7	1.8	-	Slovakia
09	11:48:36.1	47.235N	18.253E	10	-0.2	-	Iszkaszentgyörgy
09	11:57:17.4	47.198N	18.295E	0	0.3	-	Székesfehérvár (exp.)
11	7:47:07.1	48.430N	17.212E	4	1.9	-	Slovakia
11	10:04:10.0	48.746N	17.161E	10	2.0	-	Slovakia
12	1:13:30.5	46.043N	18.493E	1	-0.1	-	Liptód
13	13:25:57.6	46.148N	16.470E	10	1.6	-	Croatia
13	13:27:11.6	46.126N	16.519E	10	1.2	-	Croatia
15	1:26:25.9	47.662N	18.026E	13	0.9	-	Bábolna
15	1:49:37.5	47.686N	17.998E	8	1.0	-	Ács
15	17:55:31.9	47.651N	18.001E	8	2.0	4	Bábolna
15	23:39:40.8	46.127N	16.495E	10	1.1	-	Croatia
17	1:59:36.1	47.374N	18.275E	3	-0.2	-	Csókakó
17	8:52:10.0	47.897N	19.381E	0	1.5	-	Becske (exp.)
17	10:20:49.9	48.605N	20.766E	0	1.6	-	Slovakia (exp.)
17	10:50:27.8	48.118N	22.892E	8	1.6	-	Ukraine
18	9:18:17.5	48.429N	20.815E	0	1.5	-	Meszés (exp.)
18	11:44:25.3	47.341N	18.626E	0	0.6	-	Vereb
19	16:01:10.8	47.353N	18.353E	13	-0.1	-	Zámoly
22	7:53:18.2	48.701N	19.712E	10	1.6	-	Slovakia
22	8:51:26.2	45.849N	18.419E	0	1.0	-	Nagyharsány (exp.)
23	9:50:29.1	48.618N	20.669E	0	1.6	-	Slovakia (exp.)
23	21:22:37.3	47.643N	17.981E	4	2.9	5	Bábolna
28	21:01:33.9	47.287N	18.221E	6	0.8	-	Kincsesbánya



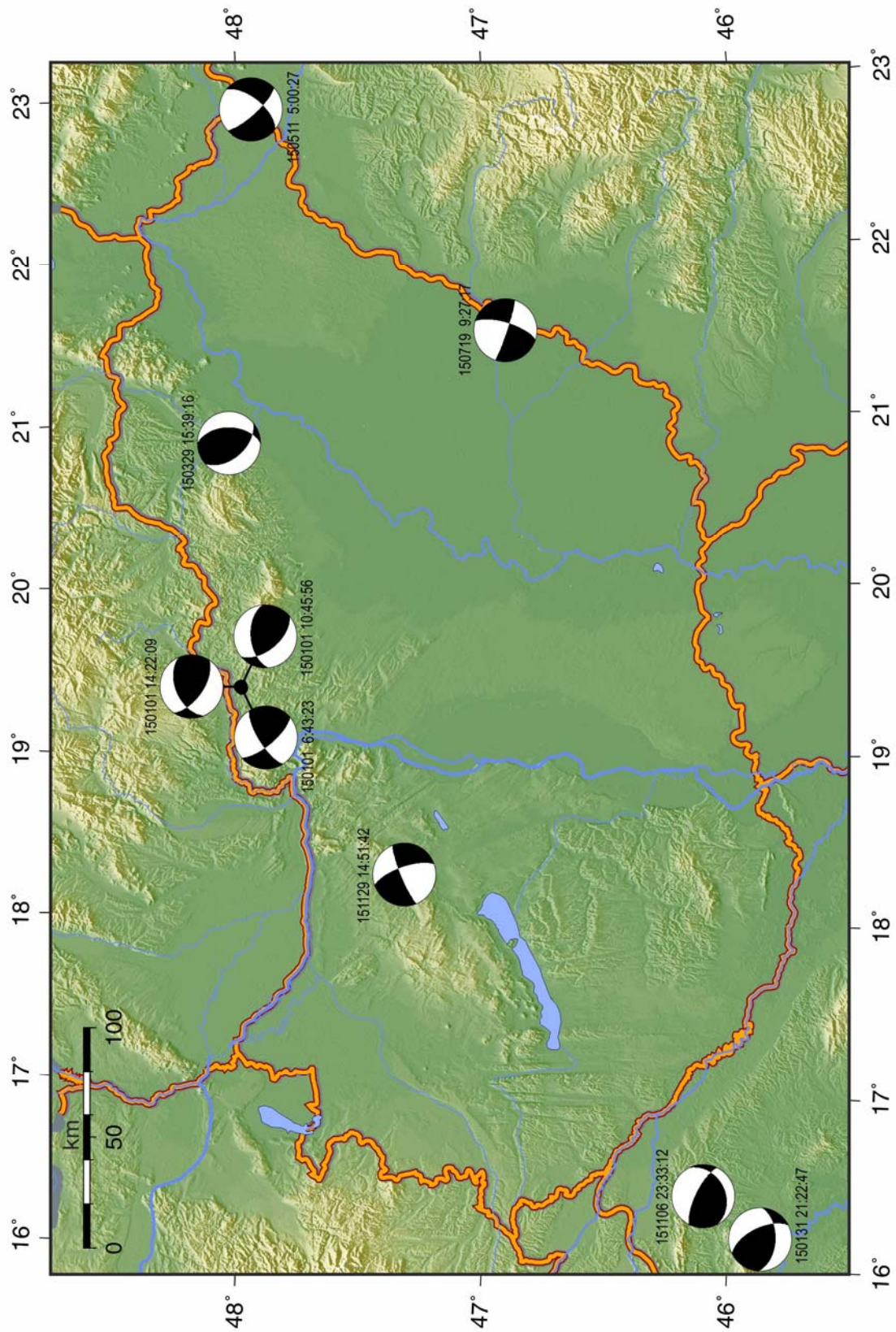
3.1. ábra A 2015-ben regisztrált földrengések epicentrumai

Figure 3.1. Epicenters of 2015 earthquakes



3.2. ábra A 2015-ben regisztrált robbantások epicentrumai







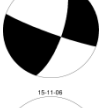
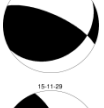

Figure 3.2. Epicenters of 2015 explosions



3.3. ábra A 2015-ben regisztrált földrengések fészekmechanizmusai

Figure 3.3. Fault plane solutions of 2015 earthquakes

A 2015-ben regisztrált földrengések fészekmechanizmusai  
Fault plane solutions of 2015 earthquakes

No	Date	Time	Epicentre		1st nodal plane			P axis		T axis		
			Lat	Lon	Strike	Dip	Rake	Azim	Plunge	Azim	Plunge	
1.	2015.01.01	6:43:23	19.38	48.03	140	70	160	8	1	99	28	
2.	2015.01.01	10:45:56	19.40	48.03	140	55	130	203	2	109	58	
3.	2015.01.01	14:22:09	19.39	48.04	125	60	130	188	7	88	55	
4.	2015.01.31	21:22:47	16.05	45.86	90	50	40	33	6	295	53	
5.	2015.03.29	15:39:16	20.89	48.07	140	50	60	251	1	343	67	
6.	2015.05.11	5:00:27	22.93	47.94	140	75	-150	4	32	268	9	
7.	2015.07.19	9:27:17	21.53	46.93	110	85	-160	336	18	242	10	
8.	2015.11.06	23:33:12	16.38	46.09	60	30	40	6	23	236	57	
9.	2015.11.29	14:51:42	18.25	47.35	340	70	-170	202	21	295	7	



## 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 epicentrumtól 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 számításához.
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 $i^{th}$ 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 calculation.
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 (Reasenber and Oppenheimer, 1985). The results are summarized in Fig. 3.3.

## Földrengés paraméterek

## Hypocenter Parameters

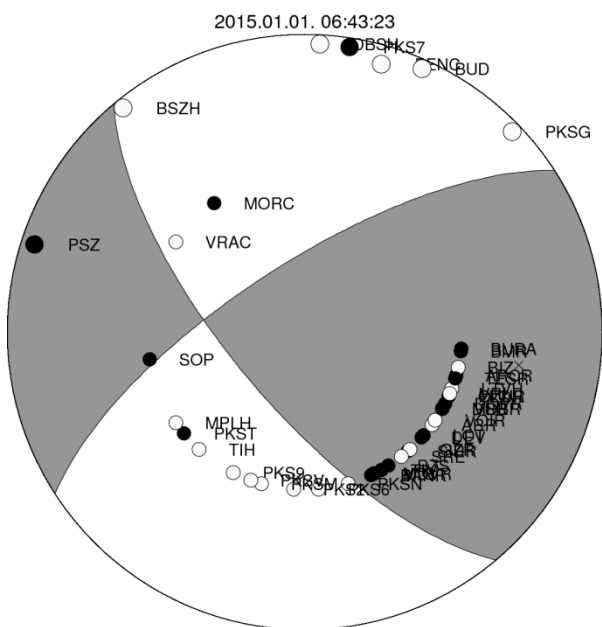
1.  
 2015-01-01 time: 6:43:23.39 UTC ML= 3.7  
 lat: 48.029N lon: 19.381E h= 3.5 km  
 erh= 1.5km erz= 1.5km  
 nr= 35 gap= 82 rms=0.55  
 Locality: Nógrádmárcal  
 Comments: felt 5-6 EMS

sta	dist	azm	phase	hr	mn	sec	res
PENC	27.6	196	ePgD	6:43:28.67			0.32
			eSg	43:33.01			0.79*
PSZ	40.3	108	iPgC	6:43:30.74			0.13
			eSg	43:35.58			-0.66*
VYHS	65.6	322	ePg	6:43:35.90			0.78
			eSg	43:43.90			-0.37*
BUD	66.3	204	iPgD	6:43:35.16			-0.08
			eSg	43:46.16			1.67*
SRO	83.3	253	ePg	6:43:38.40			0.12
			eSg	43:50.30			0.41*
DBSH	93.5	183	ePgD	6:43:40.38			0.28
			eSg	43:52.88			-0.26*
KECS	96.3	58	ePg	6:43:39.30			-1.30
			eSg	43:52.00			-2.02*
PKSG	102.7	226	ePgD	6:43:41.15			-0.58
			eSg	43:57.02			0.98*
BSZH	104.9	141	ePgD	6:43:42.32			0.19
			eSg	43:55.97			-0.79*
PKS7	110.4	189	ePgC	6:43:43.18			0.07
			eSg	43:57.72			-0.78*
CSKK	112.1	229	ePg	6:43:42.96			-0.45
			eSg	44:00.69			1.67*
PKSN	131.1	164	ePnD	6:43:46.27			-0.05
			eSn	44:03.15			-1.06*
PKST	132.6	230	ePnC	6:43:46.14			-0.36
			eSn	44:06.89			2.36*
SMOL	154.6	290	ePn	6:43:49.20			-0.05
			eSn	44:11.10			1.67*
PKS6	159.5	175	ePnD	6:43:52.12			2.25
			eSn	44:11.03			0.51*
MODS	161.0	284	ePn	6:43:49.00			-1.05
			eSn	44:10.40			-0.45*
MPLH	168.2	235	ePnD	6:43:51.67			0.72
			eSn	44:17.29			4.84*
TIH	168.4	222	ePnD	6:43:51.49			0.52
			eSn	44:17.67			5.19*
ZST	170.7	276	ePn	6:43:51.00			-0.26
			eSn	44:14.50			1.51*
PKS2	171.4	184	ePnD	6:43:54.14			2.80
			eSn	44:14.57			1.42*
PKS9	180.7	207	ePnD	6:43:52.44			-0.07
			eSn	44:20.00			4.78*
CRVS	181.9	58	ePn	6:43:52.90			0.24
			eSn	44:17.20			1.71*
LTVH	202.2	111	ePnD	6:43:55.01			-0.18
			eSn	44:23.37			3.37*
PKSM	209.7	196	ePnD	6:43:55.34			-0.78
			eSn	44:18.67			-2.99*
AMBH	212.7	151	ePn	6:43:57.09			0.60
SOP	214.7	260	ePnC	6:43:56.72			-0.03
			eSn	44:21.04			-1.73*
OKC	220.5	336	ePn	6:43:57.00			-0.47
			eSn	44:22.80			-1.25*
KOLS	236.3	65	ePn	6:43:59.20			-0.24
			eSn	44:26.30			-1.26*
MORC	236.5	325	PnC	6:43:59.92			0.46
			Sn	44:27.10			-0.51*
VRAC	249.8	305	PnD	6:44:01.64			0.52
PKSV	253.0	200	ePnD	6:44:01.32			-0.20
SIRR	261.2	139	PnC	6:44:01.73			-0.82
CONA	263.0	268	Pn	6:44:02.79			0.02
			Sn	44:31.75			-1.73*
DRGR	286.5	119	PnD	6:44:05.18			-0.52
TIM	290.9	151	PnC	6:44:05.60			-0.65
ARSA	302.5	253	Pn	6:44:08.26			0.56*

BMR	310.6	97	Sn	44:42.41			0.15*
			PnC	6:44:07.32			-1.38*
			Sn	44:41.30			-2.75*
BZS	317.9	148	PnC	6:44:08.97			-0.64*
TREC	319.5	296	ePn	6:44:08.20			-1.61*
BANR	323.4	155	PnC	6:44:10.38			0.08*
			Sn	44:44.30			-2.59*
DPC	341.1	319	ePn	6:44:11.50			-1.00*
			eSn	44:55.90			5.08*
GROS	341.5	239	iPn	6:44:12.76			0.20*
			iSn	44:48.50			-2.42*
PERS	357.6	244	iPn	6:44:15.13			0.57*
			iSn	44:53.68			-0.80*
DEV	358.9	132	PnC	6:44:14.14			-0.59*
			Sn	44:52.50			-2.27*
SOKA	361.3	245	Pn	6:44:16.83			1.81*
			Sn	44:54.31			-0.98*
GOLS	363.2	232	iPn	6:44:15.67			0.41*
			iSn	44:54.91			-0.82*
UPC	368.9	318	ePn	6:44:15.10			-0.87*
MOA	382.7	267	Pn	6:44:18.28			0.59*
			Sn	45:01.02			0.97*
ARCR	388.7	106	PnC	6:44:18.38			-0.06*
			Sn	44:59.30			-2.09*
GZR	391.5	138	PnD	6:44:18.55			-0.24*
			Sn	45:00.10			-1.91*
OBKA	402.8	245	Pn	6:44:21.20			1.00*
MDVR	403.1	154	PnD	6:44:19.43			-0.81*
PRU	415.7	302	ePn	6:44:19.90			-1.91*
			eSn	45:02.80			-4.58*
PRA	427.0	302	ePn	6:44:21.70			-1.52*
MDB	433.8	119	PnC	6:44:22.70			-1.36*
BURA	439.4	96	PnC	6:44:24.67			-0.10*
			Sn	45:10.50			-2.15*
LOT	441.4	131	PnC	6:44:25.12			0.10*
KHC	445.4	286	ePn	6:44:23.60			-1.91*
			eSn	45:09.80			-4.16*
PVCC	447.0	308	ePn	6:44:23.80			-1.91*
MYKA	460.9	250	Pn	6:44:28.97			1.53*
			Sn	45:18.61			1.20*
KBA	466.5	257	Pn	6:44:29.30			1.16*
			Sn	45:22.79			4.14*
SRE	476.2	142	PnD	6:44:27.76			-1.59*
ARR	499.0	126	PnD	6:44:31.97			-0.22*
			Sn	45:23.20			-2.66*
DOPR	511.2	117	PnC	6:44:33.69			-0.03*
VOIR	520.4	124	PnD	6:44:34.81			-0.05*
BIZ	521.0	103	PnD	6:44:33.75			-1.19*
OZUR	532.0	114	PnC	6:44:34.78			-1.53*
ABTA	537.8	255	Pn	6:44:38.70			1.66*
NKC	562.2	296	ePn	6:44:38.70			-1.38*
TESR	575.3	107	PnC	6:44:40.50			-1.21*
MLR	575.4	119	PnC	6:44:41.33			-0.39*
WATA	591.1	263	Pn	6:44:44.72			1.05*
PLOR	604.1	114	PnC	6:44:44.17			-1.13*
VRI	608.8	113	PnD	6:44:45.67			-0.22*
SQTA	620.8	262	Pn	6:44:48.23			0.84*
MOTA	626.1	263	Pn	6:44:48.93			0.89*
RETA	649.0	265	Pn	6:44:51.00			0.10*
FETA	661.1	260	Pn	6:44:52.84			0.43*
VTS	674.8	154	PnC	6:44:52.32			-1.79*
DAVA	718.4	263	Pn	6:44:59.93			0.37*

## Hypocenter Parameters

## Földregés paraméterek



2.

2015-01-01 time: 7:08:23.82 UTC ML= 1.0  
 lat: 48.048N lon: 19.398E h= 5.0 km  
 erh= 0.6km erz= 7.6km  
 nr= 5 gap=151 rms=0.20  
 Locality: Iliny  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PENC	29.9	197	ePg	7:08:29.37	0.14
			eSg	08:33.29	-0.16
PSZ	39.8	111	ePg	7:08:31.22	0.24
			eSg	08:36.23	-0.33
VYHS	64.8	320	eSg	7:08:44.40	-0.09

3.

2015-01-01 time: 10:27:44.34 UTC ML= 1.9  
 lat: 48.030N lon: 19.429E h= 7.1 km  
 erh= 1.8km erz= 1.9km  
 nr= 28 gap= 56 rms=0.84  
 Locality: Iliny  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PENC	28.8	202	ePgC	10:27:49.69	0.06
			eSg	27:54.10	0.34
PSZ	36.9	110	iPgC	10:27:51.35	0.30
			eSg	27:56.22	-0.07
VYHS	67.8	320	ePg	10:27:57.00	0.48
			eSg	28:04.90	-1.12
SRO	86.8	254	ePg	10:28:00.80	0.91
			eSg	28:10.80	-1.21
KECS	93.3	57	ePg	10:28:00.50	-0.54
			eSg	28:12.80	-1.27
DBSH	93.8	185	eSg	10:28:13.93	-0.32
BSZH	102.7	142	eSg	10:28:16.98	-0.09
PKSG	105.4	228	ePg	10:28:02.35	-0.84
			eSg	28:18.48	0.58
CSKK	114.8	230	ePn	10:28:03.91	-0.87
			eSn	28:20.00	-0.72
LANS	124.7	1	ePn	10:28:06.80	0.80
			eSn	28:21.60	-1.30
PKSN	130.2	165	ePn	10:28:06.27	-0.42
			eSn	28:23.94	-0.19
PKST	135.4	231	ePn	10:28:07.52	0.18
			eSn	28:26.88	1.60

MODS	164.4	283	ePn	10:28:09.90	-1.06
			eSn	28:32.10	0.37
MPLH	171.2	236	ePn	10:28:14.63	2.82
			eSn	28:34.00	0.76
CRVS	178.9	57	ePn	10:28:15.20	2.43
PKSM	210.8	196	ePn	10:28:16.44	-0.30
			eSn	28:45.88	3.87*

4.

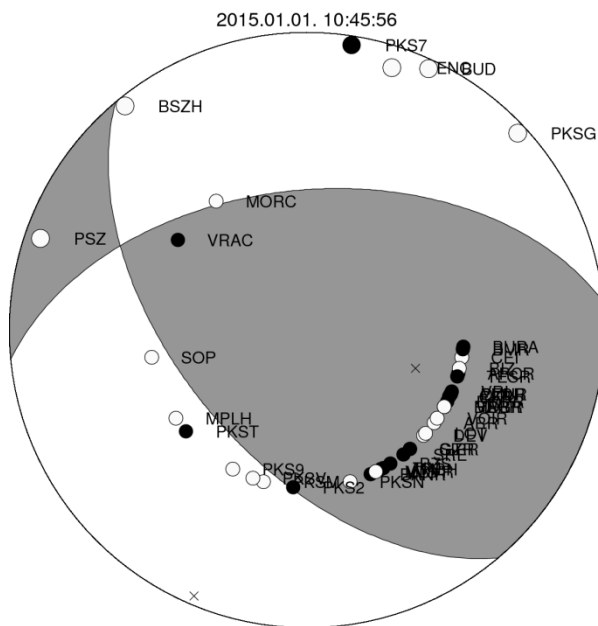
2015-01-01 time: 10:45:56.93 UTC ML= 3.9  
 lat: 48.032N lon: 19.396E h= 4.0 km  
 erh= 0.9km erz= 1.0km  
 nr= 62 gap= 55 rms=0.58  
 Locality: Iliny  
 Comments: felt 5-6 EMS

sta	dist	azm	phase	hr mn sec	res
PENC	28.2	198	ePgD	10:46:02.36	0.35
			eSg	46:06.93	0.95
PSZ	39.3	109	PgD	10:46:04.44	0.46
			Sg	46:09.80	0.32
VYHS	66.1	321	ePg	10:46:09.60	0.84
			eSg	46:17.70	-0.28
BUD	67.1	205	ePgD	10:46:08.86	-0.07
			eSg	46:18.01	-0.27
SRO	84.5	253	ePg	10:46:12.20	0.16
			eSg	46:23.30	-0.53
DBSH	93.9	183	ePg	10:46:13.94	0.22
			eSg	46:26.79	-0.02
KECS	95.2	58	ePg	10:46:12.90	-1.04
			eSg	46:25.50	-1.71
PKSG	103.7	227	ePgD	10:46:14.96	-0.51
			eSg	46:31.00	1.07
BSZH	104.4	141	ePgD	10:46:15.79	0.20
			eSg	46:29.83	-0.32
PKS7	110.9	189	ePgC	10:46:16.64	-0.11
			eSg	46:31.59	-0.61
CSKK	113.1	229	ePg	10:46:16.39	-0.76
			eSg	46:32.71	-0.20
LANS	124.5	2	ePn	10:46:19.30	0.32
			eSn	46:34.30	-1.88
PKSN	131.1	164	ePnD	10:46:19.78	-0.02
			eSn	46:36.96	-0.68
PKST	133.6	230	ePnC	10:46:19.79	-0.33
			eSn	46:39.37	1.16
SMOL	155.6	290	ePn	10:46:22.80	-0.06
			eSn	46:44.60	1.52
PKS6	159.7	175	ePn	10:46:23.51	0.14
			eSn	46:44.62	0.62
MODS	162.0	284	ePn	10:46:22.60	-1.06
			eSn	46:44.70	0.19
MPLH	169.4	236	ePnD	10:46:25.24	0.67
			eSn	46:51.18	5.05*
PKS2	171.8	185	ePnC	10:46:24.77	-0.10
			eSn	46:47.55	0.88
ZST	171.8	276	ePn	10:46:24.70	-0.18
			eSn	46:47.60	0.93
CRVS	180.8	58	ePn	10:46:26.50	0.50
			eSn	46:50.40	1.73
PKS9	181.5	208	ePnD	10:46:26.03	-0.06
			eSn	46:51.27	2.44
LTVH	201.2	111	ePn	10:46:28.43	-0.12
			eSn	46:57.02	3.81*
PKSM	210.3	196	ePnD	10:46:28.87	-0.81
AMBH	212.4	152	ePnC	10:46:29.77	-0.17
			eSn	46:59.94	4.25*
SOP	215.9	260	ePnD	10:46:30.21	-0.17
OKC	220.7	335	ePn	10:46:31.70	0.73
			eSn	46:56.30	-1.22
CEI	232.4	100	PnD	10:46:32.99	0.56
KOLS	235.1	65	ePn	10:46:32.60	-0.17
MORC	236.9	325	PnD	10:46:33.54	0.54
VRAC	250.5	305	PnC	10:46:35.01	0.31
PKSV	253.7	200	ePnD	10:46:34.88	-0.21

### Földrengés paraméterek

SIRR	260.7	139	PnC	10:46:35.22	-0.74
CONA	264.1	268	Pn	10:46:36.46	0.07
			Sn	47:05.59	-1.58
DRGR	285.7	119	PnC	10:46:38.67	-0.40
TIM	290.6	151	PnC	10:46:39.95	0.26
KOGS	296.2	234	iPn	10:46:41.29	0.90
			iSn	47:13.84	-0.45*
KRLC	296.9	320	ePn	10:46:41.30	0.82
			eSn	47:13.30	-1.15*
ARSA	303.7	253	Pn	10:46:41.82	0.49*
			Sn	47:14.24	-1.72*
BMR	309.5	97	PnC	10:46:41.41	-0.63*
			Sn	47:14.90	-2.33*
BZS	317.5	148	PnC	10:46:42.45	-0.59*
TREC	320.4	296	ePn	10:46:43.10	-0.31*
			eSn	47:17.90	-1.76*
BANR	323.2	156	PnC	10:46:43.83	0.08*
DPC	341.6	319	ePn	10:46:46.60	0.55*
			eSn	47:34.80	10.44*
GROS	342.7	239	iPn	10:46:46.49	0.30*
			iSn	47:21.78	-2.83*
CJR	349.6	115	PnC	10:46:47.17	0.13*
DEV	358.2	132	PnD	10:46:47.94	-0.18*
PERS	358.8	244	iPn	10:46:49.01	0.82*
			iSn	47:26.26	-1.92*
SOKA	362.4	245	Pn	10:46:48.82	0.17*
			Sn	47:27.41	-1.58*
UPC	369.4	318	ePn	10:46:49.30	-0.22*
MOA	383.9	267	Pn	10:46:51.78	0.46*
			Sn	47:33.22	-0.52*
ARCR	387.7	106	PnC	10:46:52.55	0.76*
GZR	391.0	139	PnC	10:46:52.23	0.03*
MDVR	402.8	154	PnC	10:46:53.69	0.00*
			Sn	47:36.80	-1.15*
OBKA	404.0	245	Pn	10:46:54.60	0.77*
			Sn	47:36.62	-1.60*
PRU	416.5	301	ePn	10:46:55.10	-0.29*
			eSn	47:38.90	-2.09*
PRA	427.8	302	ePn	10:46:56.80	0.00*
MDB	432.9	119	PnD	10:46:57.63	0.20*
BURA	438.3	96	PnC	10:46:58.71	0.60*
LOT	440.7	131	PnD	10:46:58.62	0.21*
KHC	446.4	286	ePn	10:46:59.20	0.09*
			eSn	47:45.60	-2.01*
PVCC	447.7	308	ePn	10:46:59.00	-0.28*
MYKA	462.1	250	Pn	10:47:01.68	0.61*
KBA	467.7	257	Pn	10:47:02.71	0.94*
SRE	475.7	142	PnC	10:47:02.96	0.19*
			Sn	47:53.00	-1.12*
ARR	498.2	126	PnD	10:47:05.29	-0.28*
DOPR	510.3	117	PnC	10:47:07.63	0.55*
VOIR	519.5	124	PnD	10:47:08.25	0.01*
BIZ	519.9	104	PnD	10:47:08.74	0.45*
OZUR	531.0	114	PnD	10:47:10.07	0.40*
ABTA	539.0	255	Pn	10:47:12.09	1.42*
NKC	563.1	296	ePn	10:47:13.50	-0.17*
TESR	574.2	107	PnC	10:47:15.70	0.64*
MLR	574.5	119	PnD	10:47:15.40	0.31*
WATA	592.2	262	Pn	10:47:18.48	1.18*
PLOR	603.2	114	PnC	10:47:18.83	0.17*
VRI	607.8	113	PnC	10:47:19.54	0.29*
SQTA	622.0	262	Pn	10:47:22.06	1.05*
			Sn	48:26.82	0.22*
MOTA	627.3	263	Pn	10:47:21.97	0.30*
			Sn	48:27.80	0.04*
RETA	650.2	265	Pn	10:47:24.78	0.26*
			Sn	48:28.50	-4.35*
FETA	662.3	260	Pn	10:47:26.62	0.58*
			Sn	48:34.34	-1.21*
VTS	674.5	154	PnD	10:47:27.59	0.03*
DAVA	719.6	263	Pn	10:47:33.45	0.27*
CFR	741.0	115	PnC	10:47:34.41	-1.44*
HARR	754.6	119	PnD	10:47:36.80	-0.75*

### Hypocenter Parameters



5.

2015-01-01 time: 10:46:37.93 UTC ML= 3.1  
 lat: 48.037N lon: 19.419E h= 8.8 km  
 erh= 1.5km erz= 1.7km  
 nr= 24 gap= 56 rms=0.63  
 Locality: Iliny  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PENC	29.3	200	ePgC	10:46:43.43			0.04
			eSg	46:47.74			0.09
PSZ	37.9	110	iPgC	10:46:45.06			0.19
			eSg	46:49.90			-0.39
VYHS	66.7	320	ePg	10:46:50.60			0.66
			eSg	46:58.60			-0.71
BUD	68.3	206	ePg	10:46:50.25			0.02
			eSg	46:59.03			-0.79
SRO	86.3	253	eSg	10:47:04.60			-0.90
KECS	93.4	58	ePg	10:46:54.80			0.12
			eSg	47:06.50			-1.26
DBSH	94.6	184	ePg	10:46:55.63			0.73
			eSg	47:07.57			-0.57
BSZH	103.8	142	ePg	10:46:56.84			0.30
			eSg	47:10.91			-0.14
PKSG	105.4	227	ePg	10:46:56.09			-0.72
			eSg	47:11.75			0.21
CSKK	114.8	229	ePn	10:46:57.64			-0.51
			eSn	47:13.34			-0.59
LANS	123.8	2	eSn	10:47:15.00			-0.93
PKST	135.3	230	ePn	10:47:01.34			0.63
			eSn	47:20.89			2.41
MODS	163.5	283	eSn	10:47:24.70			-0.04
ZST	173.4	276	eSn	10:47:28.30			1.37
CRVS	179.0	58	eSn	10:47:32.90			4.71*

6.

2015-01-01 time: 11:00:36.80 UTC ML= 0.9  
 lat: 48.035N lon: 19.409E h= 5.0 km  
 erh= 2.4km erz=25.9km  
 nr= 6 gap=150 rms=0.43  
 Locality: Iliny  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PENC	28.8	199	ePg	11:00:42.37			0.34
			eSg	00:46.01			-0.10

## Hypocenter Parameters

PSZ 38.6 110 ePg 11:00:43.53 -0.22  
eSg 00:48.89 -0.27  
VYHS 66.4 320 ePg 11:00:49.30 0.61  
eSg 00:57.20 -0.76

7.

2015-01-01 time: 11:05:07.29 UTC ML= 1.3  
lat: 48.056N lon: 19.411E h= 1.4 km  
erh= 2.2km erz= 4.2km  
nr= 14 gap=100 rms=0.73  
Locality: Csitár  
Comments:

sta	dist	azm	phase	hr	mn	sec	res
PENC	31.0	198	ePgD	11:05:12.36			-0.48
			eSg	05:16.38			-0.79
PSZ	39.2	113	ePgC	11:05:14.33			0.03
			eSg	05:19.42			-0.34
VYHS	64.8	319	ePg	11:05:19.70			0.84
			eSg	05:27.50			-0.38
SRO	86.3	252	eSg	11:05:34.30			-0.44
KECS	92.9	59	ePg	11:05:24.00			0.12
			eSg	05:36.00			-0.81
DBSH	96.6	184	ePg	11:05:26.88			2.33
			eSg	05:38.10			0.09
PKSG	106.4	226	ePg	11:05:25.56			-0.73
			eSg	05:40.94			-0.16
PKST	136.2	229	eSn	11:05:50.14			0.43

8.

2015-01-01 time: 11:55:24.84 UTC ML= 1.4  
lat: 48.029N lon: 19.421E h= 5.0 km  
erh= 1.5km erz= 2.3km  
nr= 19 gap= 75 rms=0.67  
Locality: Iliny  
Comments:

sta	dist	azm	phase	hr	mn	sec	res
PENC	28.5	201	ePg	11:55:30.23			0.22
			eSg	55:34.54			0.50
PSZ	37.4	109	ePgC	11:55:31.70			0.12
			eSg	55:36.53			-0.31
VYHS	67.5	320	ePg	11:55:37.40			0.48
			eSg	55:45.20			-1.15
SRO2	82.3	249	eSg	11:55:50.50			-0.55
SRO	86.2	254	eSg	11:55:51.30			-0.98
DBSH	93.7	185	eSg	11:55:54.07			-0.61
KECS	93.8	57	ePg	11:55:41.40			-0.21
			eSg	55:53.40			-1.29
PKSG	104.9	227	ePg	11:55:43.26			-0.33
			eSg	55:58.56			0.34
LANS	124.7	2	ePn	11:55:47.40			0.62
			eSn	56:01.60			-2.30
PKST	134.9	231	ePn	11:55:47.99			-0.06
			eSn	56:07.50			1.35
MODS	163.9	284	ePn	11:55:53.10			1.43
			eSn	56:14.70			2.11

9.

2015-01-01 time: 14:22:09.42 UTC ML= 2.9  
lat: 48.036N lon: 19.390E h= 1.9 km  
erh= 1.7km erz= 1.8km  
nr= 34 gap= 55 rms=0.65  
Locality: Iliny  
Comments: felt 3-4 EMS

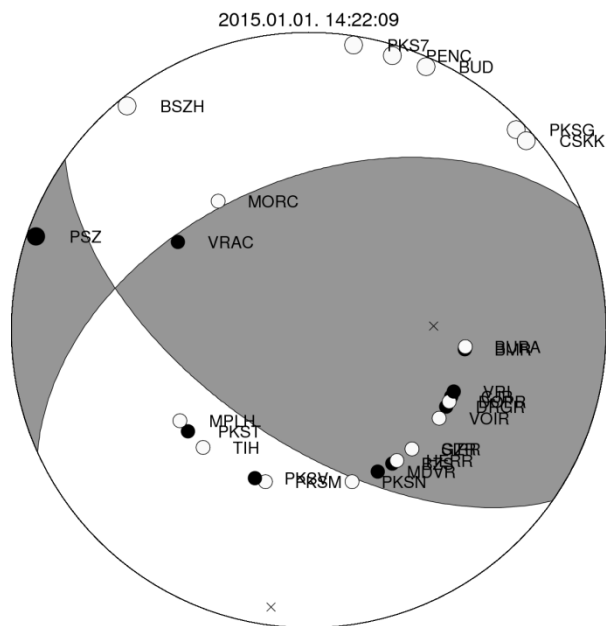
sta	dist	azm	phase	hr	mn	sec	res
PENC	28.5	197	ePgD	14:22:14.79			0.27
			eSg	22:19.15			0.66*
PSZ	39.8	109	ePgC	14:22:16.61			0.07
			eSg	22:21.23			-0.86*

## Földrengés paraméterek

VYHS	65.5	321	ePg	14:22:22.10			0.99
			eSg	22:30.10			-0.13*
BUD	67.3	204	ePgD	14:22:21.33			-0.11
			eSg	22:30.04			-0.78*
SRO2	80.5	248	ePg	14:22:22.90			-0.89
			eSg	22:34.20			-0.80*
SRO	84.2	253	ePg	14:22:24.50			0.04
			eSg	22:36.10			-0.10*
DBSH	94.4	183	ePg	14:22:27.08			0.81
			eSg	22:39.13			-0.28*
KECS	95.3	59	ePg	14:22:25.50			-0.94
			eSg	22:38.20			-1.52*
PKSG	103.7	226	ePgD	14:22:27.40			-0.54
			eSg	22:43.17			0.78*
BSZH	105.1	141	ePgD	14:22:28.25			0.07
			eSg	22:42.30			-0.52*
PKS7	111.3	189	ePgD	14:22:29.60			0.31
			eSg	22:43.95			-0.85*
CSKK	113.1	229	ePgD	14:22:28.84			-0.78
			eSg	22:45.15			-0.22*
LANS	124.0	3	ePg	14:22:32.00			0.43
			eSg	22:46.70			-2.15*
PKSN	131.6	164	ePnD	14:22:32.77			0.15
			eSn	22:49.44			-1.28*
PKST	133.6	230	ePnC	14:22:32.23			-0.64
			eSn	22:51.89			0.73*
SMOL	155.0	290	ePn	14:22:35.40			-0.14
			eSn	22:56.50			0.59*
PKS6	160.2	175	ePn	14:22:38.26			2.07
			eSn	22:57.16			0.09*
MODS	161.5	283	ePn	14:22:35.10			-1.24
			eSn	22:56.90			-0.45*
MPLH	169.3	235	ePnD	14:22:38.55			1.24
			eSn	23:02.02			2.95*
TIH	169.4	222	ePnD	14:22:38.17			0.84
			eSn	23:01.62			2.51*
ZST	171.3	276	ePn	14:22:37.40			-0.17
			eSn	23:00.70			1.18*
PKS2	172.2	184	ePn	14:22:37.97			0.29
			eSn	23:00.02			0.30*
CRVS	180.9	58	ePn	14:22:38.80			0.04
			eSn	23:03.80			2.14*
PKS9	181.7	208	ePn	14:22:38.59			-0.28
			eSn	23:03.39			1.55*
LTVH	201.8	111	ePn	14:22:44.72			3.35*
			eSn	23:09.70			3.40*
PKSM	210.6	196	ePnD	14:22:41.55			-0.92
			eSn	23:04.90			-3.36*
SOP	215.5	260	ePn	14:22:43.20			0.12
OKC	220.1	336	eSn	14:23:09.70			-0.65*
KOLS	235.3	65	ePn	14:22:45.90			0.35
MORC	236.3	325	PnD	14:22:45.98			0.31
			Sn	23:14.70			0.75*
VRAC	249.9	304	PnC	14:22:47.44			0.07
			Sn	23:16.30			-0.67*
PKSV	254.0	200	ePnC	14:22:47.39			-0.49
			eSn	23:14.64			-3.24*
SIRR	261.3	139	PnC	14:22:47.66			-1.13
CONA	263.7	267	Pn	14:22:49.14			0.05
			Sn	23:16.85			-3.19*
DRGR	286.3	119	PnC	14:22:51.04			-0.86
			Sn	23:21.10			-3.94*
KRLC	296.3	320	ePn	14:22:53.00			-0.15
			eSn	23:25.90			-1.37*
ARSA	303.4	253	Pn	14:22:55.42			1.38*
			Sn	23:40.30			11.45*
BMR	310.0	97	PnC	14:22:54.17			-0.69*
			Sn	23:26.30			-4.00*
BZS	318.1	148	PnC	14:22:54.88			-0.99*
			Sn	23:28.80			-3.31*
DPC	341.0	319	ePn	14:22:58.90			0.18*
CJR	350.2	115	PnC	14:22:59.21			-0.66*
			Sn	23:35.80			-3.42*
SOKA	362.2	245	Pn	14:23:02.54			1.17*
			Sn	23:39.90			-2.00*

### Földrengés paraméterek

UPC	368.8	318	ePn	14:23:02.20	0.01*
MOA	383.4	267	Pn	14:23:04.63	0.61*
			Sn	23:45.64	-0.96*
GZR	391.6	139	PnD	14:23:03.99	-1.05*
			Sn	23:44.50	-3.92*
MDVR	403.5	154	PnC	14:23:05.53	-0.98*
			Sn	23:47.20	-3.85*
PRU	415.9	301	ePn	14:23:07.90	-0.16*
			eSn	23:51.00	-2.81*
HERR	420.8	146	PnD	14:23:07.51	-1.16*
			Sn	23:50.80	-4.09*
BURA	438.8	96	PnD	14:23:10.93	0.01*
KHC	445.8	286	ePn	14:23:11.60	-0.19*
			eSn	23:57.60	-2.85*
DOPR	510.9	117	PnD	14:23:18.94	-0.97*
VOIR	520.2	124	PnD	14:23:20.65	-0.42*
NKC	562.5	296	ePn	14:23:25.60	-0.74*
VRI	608.4	113	PnC	14:23:31.42	-0.65*



10.

2015-01-01 time: 17:00:53.60 UTC ML= 1.5  
 lat: 48.040N lon: 19.420E h= 5.0 km  
 erh= 2.0km erz= 3.4km  
 nr= 16 gap= 90 rms=0.70  
 Locality: Iliny  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PENC	29.6	200	ePg	17:00:58.63	-0.32
			eSg	01:02.88	-0.25
PSZ	37.9	111	ePgC	17:01:00.52	0.09
			eSg	01:05.77	0.01
VYHS	66.6	319	ePg	17:01:06.00	0.48
			eSg	01:14.00	-0.82
SRO	86.4	253	ePg	17:01:09.80	0.74
			eSg	01:20.00	-1.12
KECS	93.3	58	ePg	17:01:09.90	-0.38
			eSg	01:22.10	-1.19
PKSG	105.6	227	ePg	17:01:11.76	-0.72
			eSg	01:27.41	0.21
LANS	123.6	2	ePn	17:01:16.00	0.59
			eSn	01:30.20	-2.21
MODS	163.5	283	ePn	17:01:22.50	2.11
			eSn	01:41.90	0.62

### Hypocenter Parameters

11.

2015-01-01 time: 19:44:35.94 UTC ML= 2.7  
 lat: 48.028N lon: 19.382E h= 3.3 km  
 erh= 1.7km erz= 1.8km  
 nr= 32 gap= 55 rms=0.62  
 Locality: Iliny  
 Comments: felt 3-4 EMS

sta	dist	azm	phase	hr mn sec	res
PENC	27.5	196	ePgD	19:44:41.15	0.26
			eSg	44:45.65	0.91*
PSZ	40.1	108	ePgC	19:44:43.04	-0.09
			eSg	44:47.88	-0.86*
VYHS	65.8	322	ePg	19:44:48.40	0.70
			eSg	44:56.60	-0.27*
BUD	66.3	204	ePgC	19:44:47.96	0.17
			eSg	44:57.05	0.02*
SRO	83.4	253	ePg	19:44:51.00	0.15
			eSg	45:02.40	-0.07*
KECS	96.3	58	ePg	19:44:52.00	-1.14
			eSg	45:04.60	-1.96*
PKSG	102.7	226	ePgC	19:44:53.88	-0.41
BSZH	104.8	141	ePgD	19:44:54.61	-0.05
			eSg	45:08.43	-0.83*
PKS7	110.3	189	ePg	19:44:55.96	0.31
			eSg	45:10.47	-0.56*
CSKK	112.1	229	ePgC	19:44:55.34	-0.62
			eSg	45:11.03	-0.55*
LANS	124.9	3	ePn	19:44:58.30	0.16
			eSn	45:13.10	-2.35*
PKSN	131.0	164	ePnD	19:44:59.30	0.41
			eSn	45:15.54	-1.24*
PKST	132.6	230	ePn	19:44:58.67	-0.42
			eSn	45:18.54	1.40*
SMOL	154.8	290	ePn	19:45:01.60	-0.25
			eSn	45:23.90	1.84*
PKS6	159.4	175	ePn	19:45:04.53	2.10
			eSn	45:23.42	0.32*
MODS	161.1	284	ePn	19:45:01.50	-1.15
			eSn	45:23.50	0.02*
MPLH	168.3	235	ePn	19:45:05.02	1.48
			eSn	45:28.77	3.71*
TIH	168.4	222	ePnD	19:45:04.56	1.01
			eSn	45:29.09	4.00*
ZST	170.8	276	ePn	19:45:03.50	-0.35
			eSn	45:26.50	0.88*
PKS2	171.3	184	ePn	19:45:03.70	-0.21
			eSn	45:26.35	0.62*
PKS9	180.7	208	ePnC	19:45:04.96	-0.12
			eSn	45:31.63	3.81*
CRVS	181.9	58	ePn	19:45:07.00	1.77
			eSn	45:29.50	1.42*
LTVH	202.1	111	eSn	19:45:35.85	3.28*
PKSM	209.6	196	ePnC	19:45:07.80	-0.90
			eSn	45:36.24	2.00*
SOP	214.8	260	ePnD	19:45:09.33	-0.01
			eSn	45:37.74	2.35*
KOLS	236.2	65	ePn	19:45:11.90	-0.11
MORC	236.7	325	PnD	19:45:12.32	0.25
			Sn	45:39.10	-1.14*
VRAC	249.9	305	PnD	19:45:14.05	0.33
			Sn	45:42.10	-1.09*
PKSV	253.0	200	ePnC	19:45:13.76	-0.34
SIRR	261.1	139	PnC	19:45:14.02	-1.09
CONA	263.1	268	Pn	19:45:15.34	-0.02
DRGR	286.4	119	PnD	19:45:17.02	-1.25
KRLC	296.6	320	ePn	19:45:20.00	0.46
			eSn	45:52.00	-1.54*
ARSA	302.6	253	Pn	19:45:20.59	0.30*
			Sn	45:53.43	-1.45*
BZS	317.7	148	PnD	19:45:21.55	-0.62*
			Sn	45:54.60	-3.63*
DPC	341.2	319	ePn	19:45:25.90	0.79*
			eSn	46:13.00	9.55*

## Hypocenter Parameters

CJR 350.4 115 PnC 19:45:26.31 0.07\*  
 UPC 369.0 318 ePn 19:45:28.90 0.33\*  
 MOA 382.8 267 Pn 19:45:30.60 0.31\*  
 PRU 415.9 302 ePn 19:45:34.50 0.09\*  
 BURU 439.3 96 PnC 19:45:37.60 0.26\*  
 KHC 445.5 286 ePn 19:45:38.40 0.30\*  
 eSn 46:24.10 -2.49\*  
 PVCC 447.2 308 ePn 19:45:38.50 0.18\*  
 KBA 466.6 257 Pn 19:45:41.72 0.99\*  
 DOPR 511.1 117 PnD 19:45:46.04 -0.24\*  
 NKC 562.4 296 ePn 19:45:52.70 0.02\*

12.

2015-01-02 time: 1:44:02.09 UTC ML= 1.7  
 lat: 48.042N lon: 19.420E h= 4.5 km  
 erh= 1.9km erz= 2.1km  
 nr= 32 gap= 57 rms=0.92  
 Locality: Iliny  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PENC	29.8	200	ePgD	1:44:07.72	0.25
			eSg	44:12.12	0.45
PSZ	38.0	111	iPgC	1:44:09.18	0.25
			eSg	44:14.00	-0.26
VYHS	66.4	319	ePg	1:44:14.80	0.83
			eSg	44:22.70	-0.53
SRO	86.5	253	ePg	1:44:18.30	0.74
			eSg	44:28.90	-0.72
KECS	93.1	58	ePg	1:44:18.20	-0.54
			eSg	44:30.90	-0.83
DBSH	95.1	184	eSg	1:44:31.74	-0.63
BSZH	104.2	142	ePg	1:44:20.90	0.18
			eSg	44:35.19	-0.06
PKSG	105.8	227	ePgD	1:44:20.38	-0.62
			eSg	44:35.10	-0.64
PKS7	112.3	190	ePg	1:44:21.98	-0.18
			eSg	44:36.83	-0.98
CSKK	115.2	229	ePg	1:44:22.27	-0.40
			eSg	44:38.90	0.17
LANS	123.3	2	ePn	1:44:24.60	0.67
			eSn	44:39.20	-1.77
PKSN	131.7	165	ePn	1:44:23.26	-1.71
			eSn	44:42.14	-0.68
PKST	135.7	230	ePnD	1:44:25.41	-0.06
			eSn	44:44.79	1.08
SMOL	156.8	290	ePn	1:44:29.80	1.69
MODS	163.5	283	ePn	1:44:29.60	0.66
			eSn	44:50.00	0.12
EGYH	171.3	246	ePn	1:44:27.12	-2.80
			eSn	44:50.60	-1.02
MPLH	171.4	236	ePn	1:44:32.63	2.70
			eSn	44:57.77	6.13*
PKS2	173.0	185	eSn	1:44:53.52	1.52

13.

2015-01-04 time: 18:29:05.45 UTC ML=-0.1  
 lat: 47.409N lon: 18.182E h= 0.2 km  
 erh= 4.8km erz= 162km  
 nr= 6 gap=243 rms=0.08  
 Locality: Pusztavám  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	7.8	131	ePgD	18:29:06.84	-0.01
			eSg	29:07.90	-0.04
PKSG	15.9	97	ePgD	18:29:08.20	-0.08
			eSg	29:10.63	0.14
PKST	20.1	214	ePgC	18:29:09.12	0.08
			eSg	29:11.77	-0.07

14.

2015-01-05 time: 12:09:10.42 UTC ML= 1.2  
 lat: 46.050N lon: 16.147E h= 10.0 km  
 erh= 2.0km erz= 1.3km  
 nr= 18 gap=211 rms=0.42  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PTJ	22.1	221	ePg	12:09:14.43	-0.33
			eSg	09:17.68	-0.46
GOLS	40.7	264	iPg	12:09:18.30	0.41
			iSg	09:23.92	0.19
KOGS	45.0	10	iPg	12:09:18.76	0.11
			iSg	09:24.68	-0.39
GCIS	45.1	243	iPg	12:09:19.02	0.36
DOBS	53.6	282	iSg	12:09:27.39	-0.34
CRES	59.0	245	iPg	12:09:21.20	0.10
LEGS	65.2	260	iPg	12:09:22.39	0.19
PKDS	88.9	271	iPg	12:09:26.10	-0.30
BOJS	92.3	229	iPg	12:09:26.49	-0.51
SOKA	110.6	309	Pn	12:09:29.73	-0.23
			Sn	09:42.88	-2.32
OBKA	133.3	293	Pn	12:09:33.67	0.87
			Sn	09:49.45	-0.80
ARSA	141.8	340	Pn	12:09:34.07	0.22
			Sn	09:52.80	0.67
PKSM	193.6	85	ePn	12:09:43.86	3.54*

15.

2015-01-06 time: 8:05:18.52 UTC ML= 0.7  
 lat: 47.433N lon: 18.366E h= 0.0 km  
 erh= 3.0km erz= 325km  
 nr= 5 gap=286 rms=0.15  
 Locality: Oroszlány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.0	158	ePgC	8:05:19.42	0.00
			eSg	05:20.02	-0.10
CSKK	11.1	225	ePgC	8:05:20.76	0.25
			eSg	05:21.96	-0.11
PKST	31.7	232	ePg	8:05:24.01	-0.17

16.

2015-01-06 time: 8:05:48.50 UTC ML= 0.8  
 lat: 47.457N lon: 18.394E h= 0.0 km  
 erh= 4.4km erz= 537km  
 nr= 6 gap=311 rms=0.31  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	7.2	182	ePgC	8:05:49.95	0.16
			eSg	05:50.67	-0.12
CSKK	14.5	224	ePgC	8:05:51.27	0.19
			eSg	05:52.70	-0.40
PKST	34.9	231	ePg	8:05:54.28	-0.46
			eSg	06:00.09	0.49

17.

2015-01-06 time: 8:06:11.82 UTC ML= 0.7  
 lat: 47.457N lon: 18.389E h= 0.0 km  
 erh= 4.6km erz= 567km  
 nr= 6 gap=308 rms=0.34  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	7.2	179	ePgC	8:06:13.23	0.12



## Földrengés paraméterek

## Hypocenter Parameters

CSKK 14.2 223 eSg 06:13.79 -0.33  
 ePgD 8:06:14.54 0.18  
 eSg 06:15.77 -0.57  
 PKST 34.7 231 ePg 8:06:17.79 -0.22  
 eSg 06:23.56 0.73

18.

2015-01-07 time: 13:48:53.37 UTC ML= 2.0  
 lat: 48.036N lon: 19.404E h= 2.8 km  
 erh= 2.0km erz= 2.6km  
 nr= 23 gap= 89 rms=0.78

Locality: Iliny  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PENC	28.8	199	ePg	13:48:58.64			0.10
			eSg	49:02.76			0.18
PSZ	38.9	110	iPgC	13:49:00.60			0.27
			eSg	49:05.64			-0.12
VYHS	66.1	320	ePg	13:49:06.10			0.92
			eSg	49:14.10			-0.30
SRO2	81.4	248	eSg	13:49:18.70			-0.57
SRO	85.2	253	ePg	13:49:08.70			0.10
			eSg	49:20.40			-0.07
KECS	94.4	58	ePg	13:49:09.30			-0.94
			eSg	49:21.80			-1.60
PKSG	104.5	227	ePgC	13:49:11.59			-0.45
			eSg	49:27.26			0.66
CSKK	113.9	229	ePg	13:49:13.69			-0.02
LANS	124.0	2	ePn	13:49:16.00			0.50
			eSn	49:30.70			-2.07
PKST	134.4	230	ePn	13:49:16.33			-0.47
			eSn	49:35.48			0.40
SMOL	156.0	290	ePn	13:49:21.30			1.81
MODS	162.5	283	e n	13:49:18.90			-1.40
			eSn	49:41.20			-0.11
CRVS	180.0	58	ePn	13:49:23.90			1.41
			eSn	49:47.90			2.69*

19.

2015-01-09 time: 9:22:15.52 UTC ML= 0.9  
 lat: 47.377N lon: 18.415E h= 0.0 km  
 erh= 4.1km erz= 472km  
 nr= 5 gap=294 rms=0.21

Locality: Gánt  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	2.4	312	ePgC	9:22:15.96			0.01
			eSg	22:16.35			0.06
CSKK	11.7	262	ePgC	9:22:17.30			-0.32
			eSg	22:19.35			0.09
PKST	31.6	245	ePg	9:22:21.47			0.30

20.

2015-01-09 time: 9:32:16.49 UTC ML= 1.2  
 lat: 47.471N lon: 18.382E h= 0.0 km  
 erh= 3.3km erz= 351km  
 nr= 5 gap=308 rms=0.16

Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	8.8	176	ePgC	9:32:18.09			0.02
			eSg	32:19.18			-0.12
CSKK	15.1	217	ePgD	9:32:19.40			0.21
			eSg	32:21.31			0.01
PKST	35.3	228	ePg	9:32:22.55			-0.25

21.

2015-01-09 time: 9:32:59.58 UTC ML= 1.1  
 lat: 47.461N lon: 18.367E h= 0.0 km  
 erh= 2.1km erz= 266km  
 nr= 6 gap=299 rms=0.15

Locality: Oroszlány  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	7.9	167	ePgC	9:33:00.93			-0.06
			eSg	33:02.05			-0.04
CSKK	13.5	216	ePgD	9:33:02.25			0.26
			eSg	33:03.97			0.09
PKST	33.7	228	ePg	9:33:05.47			-0.13
			eSg	33:10.09			-0.20

22.

2015-01-09 time: 10:37:27.29 UTC ML= 0.8  
 lat: 47.115N lon: 18.104E h= 8.8 km  
 erh= 2.6km erz= 4.1km  
 nr= 12 gap=122 rms=0.43

Locality: Berhida  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKST	16.9	342	ePg	10:37:29.97			-0.72
			eSg	37:32.93			-0.41
TIH	28.8	214	ePg	10:37:32.36			-0.30
CSKK	30.0	23	ePg	10:37:32.94			0.06
			eSg	37:38.32			1.09
PKSG	37.7	35	ePg	10:37:34.14			-0.05
MPLH	43.3	278	ePg	10:37:35.79			0.61
			eSg	37:41.78			0.45
MORH	108.1	158	eP*D	10:37:46.96			0.30
			eS*	38:01.15			-0.62
PKSM	108.5	158	eP*	10:37:46.80			0.09
			eS*	38:01.41			-0.45

23.

2015-01-12 time: 11:49:16.30 UTC ML= 0.4  
 lat: 47.434N lon: 18.109E h= 0.0 km  
 erh= 5.5km erz= 900km  
 nr= 7 gap=227 rms=0.59

Locality: Felsődobos  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	13.9	125	ePg	11:49:19.11			0.33
			eSg	49:21.44			0.72
PKST	20.3	196	ePgD	11:49:19.32			-0.60
			eSg	49:22.46			-0.28
PKSG	21.8	102	ePgD	11:49:19.68			-0.51
			eSg	49:23.09			-0.13
MPLH	52.1	236	ePg	11:49:26.66			1.05

24.

2015-01-13 time: 8:28:02.02 UTC ML= 0.7  
 lat: 47.461N lon: 18.390E h= 0.0 km  
 erh= 4.5km erz= 549km  
 nr= 6 gap=310 rms=0.33

Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	7.7	180	ePgD	8:28:03.59			0.19
			eSg	28:04.38			-0.10
CSKK	14.7	222	ePgD	8:28:04.84			0.20
			eSg	28:05.87			-0.81
PKST	35.0	230	ePg	8:28:07.95			-0.33
			eSg	28:13.52			0.36

## Hypocenter Parameters

## Földrengés paraméterek

25.

2015-01-13 time: 8:28:18.70 UTC ML= 0.6  
 lat: 47.459N lon: 18.378E h= 0.0 km  
 erh= 3.7km erz= 452km  
 nr= 6 gap=303 rms=0.26  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	7.5	172	ePgD	8:28:20.04	-0.01
			eSg	28:20.93	-0.17
CSKK	13.9	220	ePgD	8:28:21.39	0.21
			eSg	28:23.53	0.42
PKST	34.2	229	ePg	8:28:24.68	-0.12
			eSg	28:28.97	-0.59

26.

2015-01-13 time: 8:28:46.01 UTC ML= 0.8  
 lat: 47.495N lon: 18.417E h= 0.0 km  
 erh= 2.7km erz= 286km  
 nr= 6 gap=322 rms=0.27  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	11.7	190	ePgD	8:28:48.17	0.07
			eSg	28:49.07	-0.65
CSKK	18.9	219	ePgD	8:28:49.53	0.15
			eSg	28:51.61	-0.39
PKST	39.1	228	ePg	8:28:53.05	0.06
			eSg	28:58.71	0.28

27.

2015-01-13 time: 8:36:18.62 UTC ML= 0.9  
 lat: 47.451N lon: 18.393E h= 0.0 km  
 erh= 3.1km erz= 381km  
 nr= 6 gap=310 rms=0.22  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.5	182	ePgC	8:36:19.94	0.16
			eSg	36:20.55	-0.14
CSKK	13.9	226	ePgD	8:36:21.25	0.14
			eSg	36:22.80	-0.25
PKST	34.5	232	ePgC	8:36:24.50	-0.27
			eSg	36:29.93	0.36

28.

2015-01-13 time: 8:36:50.83 UTC ML= 0.9  
 lat: 47.449N lon: 18.456E h= 0.0 km  
 erh= 7.6km erz= 582km  
 nr= 6 gap=341 rms=0.34  
 Locality: Bodmér  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	8.0	218	ePgC	8:36:52.46	0.20
			eSg	36:53.18	-0.20
CSKK	17.6	237	ePgD	8:36:53.79	-0.18
			eSg	36:55.73	-0.68
PKST	38.2	237	ePgC	8:36:57.73	0.07
			eSg	37:03.72	0.74

29.

2015-01-13 time: 10:38:56.95 UTC ML= 2.2  
 lat: 45.618N lon: 16.122E h= 3.5 km  
 erh= 4.6km erz= 3.4km  
 nr= 12 gap=229 rms=0.63  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PTJ	33.9	338	ePg	10:39:02.39	-0.64
			eSg	39:07.64	-0.14
KOGS	92.8	6	ePg	10:39:13.63	0.09
			eSg	39:26.84	0.36
OBKA	157.0	309	Pn	10:39:23.97	0.87
			Sn	39:42.77	-0.74
PKSV	168.5	80	ePn	10:39:23.93	-0.61
			eSn	39:44.18	-1.88
PKSM	206.3	71	ePn	10:39:29.85	0.59
			eSn	39:54.84	0.38
MORH	206.7	71	ePn	10:39:30.11	0.81
			eSn	39:55.02	0.48

30.

2015-01-13 time: 23:34:55.53 UTC ML= 0.5  
 lat: 47.371N lon: 18.206E h= 8.2 km  
 erh= 3.9km erz= 1.2km  
 nr= 6 gap=214 rms=0.07  
 Locality: Mór  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	4.2	102	ePgC	23:34:57.20	0.02
			eSg	34:58.37	-0.09
PKSG	14.1	81	ePgD	23:34:58.48	0.03
			eSg	35:00.76	0.03
PKST	18.0	226	ePgD	23:34:58.97	-0.09
			eSg	35:01.94	0.13

31.

2015-01-14 time: 8:54:22.54 UTC ML= 1.3  
 lat: 48.040N lon: 19.426E h= 5.0 km  
 erh= 1.7km erz=19.1km  
 nr= 6 gap=152 rms=0.31  
 Locality: Iliny  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PENC	29.7	201	ePgD	8:54:27.88	-0.04
			eSg	54:32.06	-0.06
PSZ	37.5	111	ePgD	8:54:29.45	0.16
			eSg	54:34.17	-0.38
VYHS	66.9	319	ePg	8:54:35.00	0.48
			eSg	54:43.30	-0.56

32.

2015-01-14 time: 23:07:22.20 UTC ML= 1.7  
 lat: 46.080N lon: 17.032E h= 16.1 km  
 erh= 2.2km erz= 3.4km  
 nr= 21 gap=154 rms=0.54  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
KOGS	72.9	304	eP*	23:07:35.54	0.02
			eS*	07:45.81	-0.10
PTJ	85.6	256	eP*	23:07:36.61	-0.85
			eS*	07:46.74	-2.63*
PKSV	96.9	103	eP*C	23:07:39.78	0.60
			eS*	07:52.27	-0.15
GOLS	109.3	266	ePn	23:07:41.84	1.04

## Földrengés paraméterek

## Hypocenter Parameters

Station	Dist	Azm	Phase	hr	mn	sec	res
PKS9	111.3	60	ePn	23:07:40.64		-0.41	
			eSn	07:56.20		0.45	
GCIS	111.4	258	Pn	23:07:41.67		0.60	
			Sn	07:55.04		-0.75	
TIH	112.6	36	ePnC	23:07:40.88		-0.33	
			eSn	07:55.60		-0.44	
DOBS	121.1	274	ePn	23:07:42.84		0.57	
PKSM	125.2	83	ePnD	23:07:42.40		-0.38	
			eSn	07:59.60		0.77	
MORH	125.4	83	ePnD	23:07:42.38		-0.43	
			eSn	07:58.02		-0.87	
MPLH	127.2	18	ePnC	23:07:42.88		-0.16	
			eSn	07:59.96		0.67	
PKST	151.8	30	ePn	23:07:46.43		0.33	
			eSn	08:05.55		0.80	

33.

2015-01-15 time: 13:04:02.29 UTC ML= 0.6  
 lat: 47.448N lon: 18.075E h= 0.0 km  
 erh= 6.7km erz= 728km  
 nr= 5 gap=276 rms=0.35  
 Locality: Bakonysárkány  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	16.9	124	ePgC	13:04:05.82		0.52	
			eSg	04:07.65		0.00	
PKST	21.2	188	ePgC	13:04:05.91		-0.16	
			eSg	04:08.85		-0.17	
PKSG	24.6	105	eSg	13:04:09.60		-0.51	

34.

2015-01-15 time: 14:21:12.66 UTC ML= 1.6  
 lat: 46.142N lon: 16.431E h= 10.0 km  
 erh= 1.4km erz= 1.1km  
 nr= 21 gap=146 rms=0.41  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
KOGS	36.8	338	iPgC	14:21:19.44		-0.03	
			iSg	21:24.67		-0.11	
PTJ	45.5	234	ePg	14:21:21.06		0.08	
			eSg	21:27.17		-0.29	
GOLS	64.1	257	iPg	14:21:24.52		0.27	
GCIS	69.4	244	iPg	14:21:25.33		0.15	
			iSg	21:34.41		-0.53	
DOBS	74.4	271	iPg	14:21:25.97		-0.09	
CREG	83.3	245	iPg	14:21:27.81		0.17	
PDKS	111.2	265	iPn	14:21:32.06		-0.23	
SOKA	123.0	299	Pn	14:21:34.27		0.52	
			Sn	21:49.34		-0.86	
ARSA	141.5	331	Pn	14:21:36.44		0.38	
			Sn	21:54.12		-0.19	
MPLH	142.3	37	ePn	14:21:35.90		-0.27	
			eSn	21:51.58		-2.92*	
OBKA	150.6	286	Pn	14:21:38.18		0.98	
			Sn	21:56.88		0.54	
PKSM	170.8	87	ePn	14:21:38.95		-0.77	
			eSn	21:59.14		-1.68	
MORH	171.1	87	ePn	14:21:40.11		0.36	
			eSn	21:59.90		-0.98	

35.

2015-01-19 time: 6:40:02.58 UTC ML= 0.5  
 lat: 47.190N lon: 18.212E h= 0.0 km  
 erh= 1.1km erz= 314km  
 nr= 10 gap=136 rms=0.24  
 Locality: Csór  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	15.5	300	ePgC	6:40:05.27		-0.08	
			eSg	40:07.70		0.20	
CSKK	19.6	11	ePgC	6:40:05.93		-0.15	
			eSg	40:08.90		0.09	
PKSG	26.2	31	ePg	6:40:07.24		-0.02	
			eSg	40:12.49		1.58*	
MORH	113.3	163	ePg	6:40:23.16		0.35	
			eSg	40:38.34		-0.25	
PKSM	113.6	163	ePg	6:40:23.02		0.15	
			eSg	40:37.77		-0.93	

36.

2015-01-20 time: 8:38:49.79 UTC ML= 0.8  
 lat: 47.449N lon: 18.382E h= 0.0 km  
 erh= 4.0km erz= 503km  
 nr= 6 gap=303 rms=0.30  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	6.4	174	ePgC	8:38:50.71		-0.23	
			eSg	38:52.01		0.18	
CSKK	13.3	224	ePgD	8:38:51.92		-0.23	
			eSg	38:53.74		-0.26	
PKST	33.7	231	ePg	8:38:56.30		0.49	
			eSg	39:00.85		0.34	

37.

2015-01-20 time: 8:47:18.43 UTC ML= 0.8  
 lat: 47.433N lon: 18.390E h= 0.0 km  
 erh= 1.7km erz= 210km  
 nr= 6 gap=306 rms=0.13  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	4.6	180	ePgC	8:47:19.24		-0.01	
			eSg	47:20.00		0.12	
CSKK	12.5	232	ePgD	8:47:20.66		0.00	
			eSg	47:22.15		-0.26	
PKST	33.2	234	ePg	8:47:24.28		-0.07	
			eSg	47:29.24		0.27	

38.

2015-01-22 time: 12:05:41.52 UTC ML= 0.5  
 lat: 47.398N lon: 18.133E h= 0.0 km  
 erh= 8.0km erz= \*\*\*km  
 nr= 7 gap=211 rms=0.80  
 Locality: Nagyveleg  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	10.4	112	ePgC	12:05:43.54		0.17	
			eSg	05:45.52		0.70	
PKST	17.1	206	ePgC	12:05:43.48		-1.09	
			eSg	05:46.64		-0.32	
PKSG	19.5	92	eSg	12:05:47.45		-0.26	
MPLH	51.5	241	ePg	12:05:50.93		0.21	
			eSg	05:59.98		2.09	

39.

2015-01-23 time: 2:36:47.27 UTC ML= 1.0  
 lat: 47.913N lon: 16.426E h= 13.0 km  
 erh= 4.9km erz= 3.5km  
 nr= 11 gap=153 rms=0.96  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
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## Hypocenter Parameters

Station	Dist	Azm	Phase	hr mn sec	res
SOP	27.4	159	ePgD	2:36:53.50	0.81
			eSg	36:57.60	0.69
CONA	42.2	272	Pg	2:36:55.07	-0.10
			Sg	37:00.92	-0.41
EGYH	87.5	129	eSg	2:37:13.98	-1.43
ARSA	100.2	223	P*	2:37:05.07	0.02
			S*	37:17.16	-1.75
MOA	161.8	267	Pn	2:37:14.24	1.43
			Sn	37:34.29	1.56
TREC	168.6	336	ePn	2:37:12.90	-0.76
			eSn	37:33.60	-0.64

40.

2015-01-27 time: 12:00:02.01 UTC ML= 0.3  
 lat: 47.199N lon: 18.289E h= 0.0 km  
 erh= 1.2km erz= 337km  
 nr= 8 gap=147 rms=0.24  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	18.4	353	ePg	12:00:05.00	-0.30
			eSg	00:08.21	0.34
PKST	20.5	289	ePgD	12:00:05.59	-0.07
			eSg	00:08.59	0.08
PKSG	22.8	20	ePgD	12:00:05.98	-0.11
			eSg	00:09.43	0.16
PKSM	112.9	166	ePg	12:00:22.59	0.41
			eSg	00:37.60	-0.31

41.

2015-01-27 time: 22:35:30.47 UTC ML= 1.2  
 lat: 48.000N lon: 19.336E h= 7.2 km  
 erh= 1.8km erz=11.4km  
 nr= 6 gap=136 rms=0.36  
 Locality: Mohora  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PENC	23.6	190	ePgC	22:35:34.80	-0.08
			eSg	35:38.04	-0.28
PSZ	42.7	102	ePg	22:35:38.57	0.37
			eSg	35:43.86	-0.37
VYHS	66.3	326	ePg	22:35:42.90	0.52
			eSg	35:51.20	-0.47

42.

2015-01-28 time: 7:39:57.22 UTC ML= 0.8  
 lat: 47.407N lon: 18.431E h= 0.0 km  
 erh= 6.6km erz= 247km  
 nr= 6 gap=352 rms=0.26  
 Locality: Gánt  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	3.5	241	ePgC	7:39:58.12	0.28
			eSg	39:58.68	0.36
CSKK	13.8	249	ePgD	7:39:59.51	-0.17
			eSg	40:01.07	-0.52
PKST	34.2	241	ePg	7:40:03.23	-0.10
			eSg	40:08.11	0.02

43.

2015-01-28 time: 7:40:09.12 UTC ML= 0.9  
 lat: 47.466N lon: 18.446E h= 0.0 km  
 erh= 3.6km erz= 299km  
 nr= 5 gap=333 rms=0.18  
 Locality: Várgesztes  
 Comments: probably explosion

## Földrengés paraméterek

sta	dist	azm	phase	hr mn sec	res
PKSG	9.2	207	ePgC	7:40:10.85	0.09
			eSg	40:11.49	-0.55
CSKK	18.0	231	ePgD	7:40:12.33	-0.01
			eSg	40:14.83	-0.02
PKST	38.6	234	eSg	7:40:21.55	0.15

44.

2015-01-28 time: 13:02:27.79 UTC ML= 0.8  
 lat: 47.432N lon: 18.147E h= 0.0 km  
 erh= 6.4km erz= \*\*\*km  
 nr= 8 gap=226 rms=0.80  
 Locality: Felsődobos  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	11.5	132	ePg	13:02:30.22	0.38
			eSg	02:32.44	1.00
PKSG	18.9	104	ePg	13:02:30.86	-0.31
			eSg	02:34.15	0.34
PKST	21.0	204	ePg	13:02:30.30	-1.24
			eSg	02:33.33	-1.13
MPLH	54.3	238	ePg	13:02:37.63	0.14
			eSg	02:46.33	1.27

45.

2015-01-28 time: 23:41:21.28 UTC ML= 1.2  
 lat: 47.820N lon: 17.745E h= 12.2 km  
 erh= 2.4km erz= 2.4km  
 nr= 21 gap=119 rms=0.83  
 Locality: Slovakia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
SRO	42.6	91	ePg	23:41:29.10	-0.09
			eSg	41:35.40	0.05
ZST	63.6	311	ePg	23:41:33.40	0.56
			eSg	41:40.30	-1.56
PKST	66.1	161	ePg	23:41:32.63	-0.65
			eSg	41:40.67	-1.98
PKSG	68.0	134	ePg	23:41:34.96	1.34
			eSg	41:42.80	-0.45
MODS	70.7	330	ePg	23:41:34.00	-0.09
			eSg	41:43.90	-0.19
MPLH	73.9	192	ePg	23:41:33.54	-1.12
			eSg	41:44.34	-0.76
SMOL	80.6	343	ePg	23:41:36.50	0.66
			eSg	41:47.50	0.30
TIH	102.9	174	eP*	23:41:40.64	1.10
VYHS	110.5	47	ePn	23:41:40.00	-0.53
			eSn	41:53.80	-1.74
MORH	191.0	159	ePn	23:41:51.24	0.67
			eSn	42:12.48	-0.94
PKSM	191.4	159	ePnD	23:41:51.34	0.72
			eSn	42:12.77	-0.73

46.

2015-01-29 time: 5:53:24.97 UTC ML= 2.6  
 lat: 45.762N lon: 18.889E h= 1.6 km  
 erh= 3.6km erz= 2.7km  
 nr= 31 gap=170 rms=1.17  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSV	51.5	286	ePgC	5:53:34.61	0.45
			eSg	53:43.16	1.83
PKSM	53.6	339	ePgC	5:53:34.45	-0.09
			eSg	53:41.91	-0.10
MORH	53.9	339	ePgC	5:53:34.46	-0.14
			eSg	53:41.97	-0.14

**Földrengés paraméterek**

**Hypocenter Parameters**

PKS2	85.0	17	ePg	5:53:38.43	-1.71
			eSg	53:54.67	2.69
PKS9	103.1	333	ePg	5:53:43.87	0.49
			eSg	53:58.43	0.68
PKS6	106.8	29	ePgc	5:53:44.30	0.26
			eSg	53:59.36	0.45
PKS7	144.4	8	eSn	5:54:09.30	0.11
PKSN	147.0	31	eSn	5:54:11.27	1.52
TIH	148.0	329	ePn	5:53:48.63	-1.62
			eSn	54:09.85	-0.12
PKST	178.9	338	ePn	5:53:52.82	-1.29
			eSn	54:18.73	1.89
CSKK	184.4	345	eSn	5:54:20.09	2.03
PKSG	185.2	348	ePn	5:53:53.27	-1.62
			eSn	54:20.41	2.18
MPLH	187.8	326	ePn	5:53:53.77	-1.44
			eSn	54:23.01	4.21*
BZS	213.1	94	PnD	5:54:00.05	1.68
			Sn	54:27.20	2.78
PENC	227.5	8	ePnD	5:53:58.48	-1.69
MDVR	246.9	116	PnD	5:54:02.38	-0.21
			Sn	54:32.50	0.57
PSZ	251.7	18	ePn	5:54:01.82	-1.37
HERR	293.4	109	PnC	5:54:07.63	-0.75
			Sn	54:42.80	0.56*
ZST	302.9	333	ePn	5:54:07.80	-1.76*
			eSn	54:39.80	-4.55*
VYHS	303.8	359	ePn	5:54:08.30	-1.38*
			eSn	54:41.40	-3.15*
GZR	306.2	98	PnD	5:54:10.91	0.93*
			Sn	54:47.10	2.01*
ARSA	306.8	303	Pn	5:54:07.78	-2.27*
MODS	315.1	337	ePn	5:54:08.70	-2.39*
			eSn	54:41.90	-5.17*
DRGR	316.1	69	PnD	5:54:13.48	2.27*
			Sn	54:51.50	4.22*
CONA	333.7	316	Pn	5:54:11.43	-1.97*
MOA	422.4	303	Pn	5:54:23.55	-0.91*
			Sn	55:08.72	-2.15*

47.

2015-01-30 time: 8:24:57.69 UTC ML= 0.5  
 lat: 47.462N lon: 18.219E h= 0.0 km  
 erh= 1.8km erz= 255km  
 nr= 6 gap=269 rms=0.15  
 Locality: Bokod  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	11.4	164	ePgD	8:24:59.98	0.25
			eSg	25:01.37	0.05
PKSG	15.1	121	ePgc	8:25:00.32	-0.07
			eSg	25:02.33	-0.17
PKST	26.5	212	ePgD	8:25:02.44	0.01
			eSg	25:05.92	-0.21

48.

2015-01-31 time: 21:22:47.05 UTC ML= 2.6  
 lat: 45.859N lon: 16.045E h= 9.3 km  
 erh= 1.6km erz= 0.9km  
 nr= 47 gap=149 rms=0.45  
 Locality: Croatia  
 Comments:

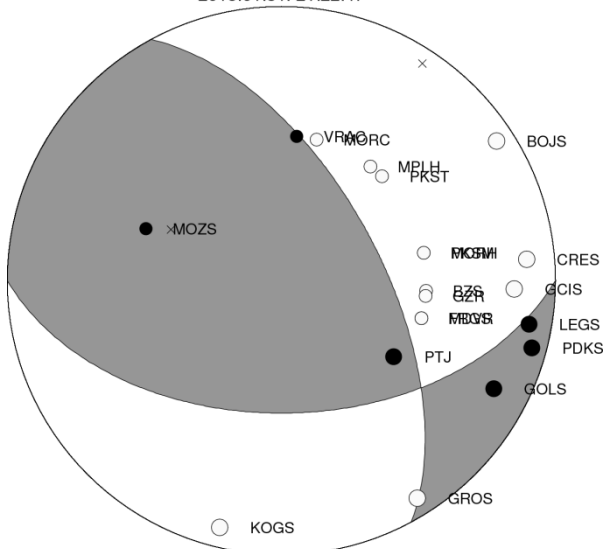
sta	dist	azm	phase	hr mn sec	res
PTJ	8.1	304	ePgc	21:22:49.67	0.41
			eSg	22:50.75	-0.23*
GCIS	32.4	272	iPgD	21:22:53.41	0.33
			iSg	22:56.94	-0.83*
GOLS	36.7	297	iPgc	21:22:53.89	0.08
			iSg	22:58.40	-0.68*
CRES	45.8	265	iPgD	21:22:55.53	0.13
			iSg	23:01.31	-0.61*

CESS	46.9	286	iPg	21:22:55.96	0.37
			eSg	23:01.26	-0.98*
DOBS	55.0	306	iPg	21:22:56.95	-0.07
LEGS	57.3	280	iPgC	21:22:57.55	0.13
			eSg	23:03.73	-1.77*
KOGS	67.3	14	ePgD	21:22:59.33	0.14
			eSg	23:08.21	-0.45*
BOJS	73.3	237	iPgD	21:23:00.02	-0.23
			iSg	23:09.29	-1.25*
GROS	78.9	328	iPgD	21:23:00.75	-0.50
			iSg	23:09.16	-3.16*
PKKS	84.2	285	iPgC	21:23:01.85	-0.33
VISS	93.9	266	iPg	21:23:03.30	-0.60
			eSg	23:14.32	-2.72*
GBRS	102.9	249	iPg	21:23:05.02	-0.48
VNDS	107.5	285	iP*	21:23:05.49	-0.80
PERS	112.1	320	iPn	21:23:06.07	-0.81
			eSn	23:18.64	-3.70*
LJU	119.4	280	iPn	21:23:07.43	-0.36
SOKA	119.9	319	Pn	21:23:07.22	-0.62
			Sn	23:20.69	-3.37*
GBAS	124.6	274	iPn	21:23:08.17	-0.27
CEY	126.5	264	iPn	21:23:08.62	-0.05
MOZS	133.0	291	iPnC	21:23:09.65	0.17
KNDS	134.8	254	iPn	21:23:09.88	0.18
			eSn	23:27.28	-0.08*
OBKA	136.2	302	Pn	21:23:10.61	0.73
			Sn	23:26.50	-1.19*
CRNS	140.4	280	iPn	21:23:10.69	0.29
JAVS	153.8	271	iPn	21:23:12.57	0.50
ARSA	159.7	345	Pn	21:23:14.86	2.05
			Sn	23:32.66	-0.25*
SKDS	161.9	258	iPn	21:23:13.64	0.55
			eSn	23:33.77	0.38*
GORS	166.2	288	iPn	21:23:13.75	0.14
			eSn	23:34.85	0.52*
VOJS	168.4	277	ePn	21:23:13.98	0.09
			eSn	23:35.99	1.17*
PKSV	171.4	89	ePn	21:23:14.45	0.18
CADS	183.3	283	iPn	21:23:16.33	0.58
			eSn	23:40.09	1.96*
TIH	183.3	51	ePn	21:23:15.60	-0.15
MPLH	185.4	38	ePnD	21:23:15.80	-0.22
			eSn	23:38.29	-0.32*
PKS9	190.4	65	ePn	21:23:16.36	-0.28
ROBS	200.8	282	ePn	21:23:18.29	0.35
MYKA	204.2	295	Pn	21:23:19.13	0.78
			Sn	23:44.26	1.49*
PKSM	204.8	79	ePnC	21:23:18.17	-0.26
			eSn	23:47.85	4.94*
MORH	205.1	79	ePnD	21:23:18.04	-0.43
			eSn	23:40.59	-2.38*
SOP	206.5	11	ePn	21:23:19.09	0.44
			eSn	23:40.23	-3.06*
PKST	217.9	44	ePnD	21:23:19.90	-0.17
CONA	230.4	357	Pn	21:23:22.41	0.78
			Sn	23:54.48	5.88*
CSKK	238.2	45	ePn	21:23:28.09	5.49*
PKSG	247.6	47	ePn	21:23:24.06	0.29
KBA	247.7	303	Pn	21:23:24.29	0.50
			Sn	23:52.72	0.28*
MOA	259.5	328	Pn	21:23:26.38	1.12
			Sn	23:53.23	-1.82*
ZST	271.9	17	ePn	21:23:26.80	0.00
			eSn	23:54.20	-3.61*
SRO	277.7	39	ePn	21:23:29.90	2.37
			eSn	23:58.90	-0.20*
PKS6	283.7	73	ePn	21:23:32.92	4.65*
ABTA	289.5	290	Pn	21:23:30.13	1.14
			Sn	24:11.53	9.82*
MODS	294.8	19	ePn	21:23:28.30	-1.35
			eSn	23:57.80	-5.07*
FRGS	305.1	105	PnD	21:23:37.13	6.19*
			Sn	24:15.60	10.42*
PENC	327.3	49	ePn	21:23:33.84	0.14*

## Hypocenter Parameters

PSZ	372.1	52	ePn	21:23:40.16	0.86*
WATA	379.7	296	Pn	21:23:41.87	1.63*
			Sn	24:22.90	1.17*
VRAC	385.7	6	PnC	21:23:39.05	-1.94*
SQTA	400.6	292	Pn	21:23:44.59	1.74*
			Sn	24:46.30	19.92*
KHC	408.5	333	ePn	21:23:44.70	0.87*
			eSn	24:25.10	-3.01*
MOTA	413.0	294	Pn	21:23:45.86	1.46*
			Sn	24:48.20	19.07*
FETA	428.4	288	Pn	21:23:48.51	2.19*
			Sn	24:54.20	21.66*
GRUS	429.2	121	Sn	21:24:45.20	12.50*
BZS	434.5	94	PnD	21:23:53.49	6.42*
RETA	442.9	294	Pn	21:24:04.60	16.48*
			Sn	24:35.99	0.24*
LANS	447.7	35	ePn	21:23:50.20	1.49*
MORC	449.8	14	PnD	21:23:47.81	-1.17*
			Sn	24:31.60	-5.68*
MDVR	460.3	105	PnD	21:23:58.35	8.06*
PRU	472.6	346	ePn	21:23:51.70	-0.13*
DAVA	498.5	289	Pn	21:23:55.80	0.75*
			Sn	23:34.33	-73.77*
GZR	527.5	96	PnD	21:24:05.89	7.21*
NKC	555.4	331	ePn	21:24:02.60	0.45*
			eSn	24:55.10	-5.62*

2015.01.31. 21:22:47



49.

2015-02-02 time: 23:10:54.43 UTC ML= 0.1  
 lat: 47.379N lon: 18.135E h= 4.9 km  
 erh= 2.6km erz= 3.2km  
 nr= 6 gap=236 rms=0.04  
 Locality: Nagyveleg  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	9.6	100	ePgD	23:10:56.38	0.03
			eSg	10:57.80	-0.04
PKST	15.3	210	ePgD	23:10:57.32	0.02
			eSg	10:59.52	-0.02
PKSG	19.3	86	ePgD	23:10:57.93	-0.05
			eSg	11:00.82	0.06

50.

2015-02-03 time: 8:03:21.68 UTC ML= 0.7  
 lat: 47.359N lon: 18.489E h= 0.0 km  
 erh= 2.9km erz= 351km  
 nr= 6 gap=316 rms=0.20

## Földrengés paraméterek

Locality: Csákvár  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	8.3	296	ePg	8:03:23.37	0.21
			eSg	03:24.30	-0.01
CSKK	17.3	271	ePg	8:03:24.64	-0.13
			eSg	03:26.85	-0.33
PKST	36.2	252	ePg	8:03:28.06	-0.08
			eSg	03:33.52	0.34

51.

2015-02-03 time: 8:03:49.39 UTC ML= 0.6  
 lat: 47.432N lon: 18.368E h= 0.0 km  
 erh= 1.5km erz= 194km  
 nr= 6 gap=287 rms=0.11  
 Locality: Oroszlány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	4.8	159	ePg	8:03:50.10	-0.15
			eSg	03:51.00	0.09
CSKK	11.2	227	ePg	8:03:51.38	-0.01
			eSg	03:52.87	-0.08
PKST	31.7	233	ePg	8:03:55.25	0.19
			eSg	03:59.45	-0.03

52.

2015-02-03 time: 8:04:17.40 UTC ML= 0.9  
 lat: 47.522N lon: 18.391E h= 0.0 km  
 erh= 2.4km erz= 283km  
 nr= 6 gap=318 rms=0.39  
 Locality: Vértessomló  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	14.5	180	ePg	8:04:20.06	0.08
			eSg	04:21.23	-0.77
CSKK	20.2	209	ePg	8:04:21.31	0.30
			eSg	04:23.25	-0.58
PKST	39.8	223	ePg	8:04:24.73	0.23
			eSg	04:30.29	0.25

53.

2015-02-04 time: 9:54:08.33 UTC ML= 0.9  
 lat: 45.998N lon: 18.153E h= 0.0 km  
 erh= 1.3km erz= 139km  
 nr= 6 gap=270 rms=0.08  
 Locality: Gyód  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	14.4	148	ePg	9:54:10.75	-0.15
			eSg	54:12.95	0.05
PKSM	44.6	58	ePgC	9:54:16.38	0.08
			eSg	54:22.45	-0.07
MORH	45.1	57	ePgC	9:54:16.43	0.06
			eSg	54:22.61	-0.04

54.

2015-02-04 time: 9:55:39.80 UTC ML= 0.7  
 lat: 45.993N lon: 18.166E h= 0.0 km  
 erh= 2.2km erz= 233km  
 nr= 6 gap=266 rms=0.15  
 Locality: Gyód  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	13.4	150	ePg	9:55:42.37	0.19
			eSg	55:43.67	-0.38

## Földrengés paraméterek

## Hypocenter Parameters

PKSM 44.1 56 ePgC 9:55:47.65 -0.02  
 eSg 55:53.73 -0.08  
 MORH 44.5 56 ePgC 9:55:47.72 -0.02  
 eSg 55:54.09 0.15

55.

2015-02-05 time: 8:18:28.88 UTC ML= 0.6  
 lat: 47.237N lon: 18.187E h= 0.0 km  
 erh= 6.4km erz= 860km  
 nr= 7 gap=220 rms=0.57  
 Locality: Bakonykúti  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	11.8	282	ePg	8:18:30.45	-0.55
			eSg	18:32.73	0.09
CSKK	15.0	22	ePg	8:18:31.07	-0.50
			eSg	18:34.14	0.48
PKSG	23.0	42	ePg	8:18:32.48	-0.52
			eSg	18:36.72	0.51
MPLH	49.7	261	ePg	8:18:38.66	0.91

56.

2015-02-05 time: 8:22:00.74 UTC ML= 0.8  
 lat: 47.446N lon: 18.390E h= 0.0 km  
 erh= 2.0km erz= 247km  
 nr= 6 gap=308 rms=0.14  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.0	180	ePgC	8:22:01.91	0.10
			eSg	22:02.51	-0.14
CSKK	13.4	227	ePg	8:22:03.22	0.08
			eSg	22:04.85	-0.16
PKST	34.0	232	ePgC	8:22:06.68	-0.13
			eSg	22:11.82	0.27

57.

2015-02-05 time: 8:22:36.62 UTC ML= 0.6  
 lat: 47.338N lon: 18.413E h= 0.0 km  
 erh= 4.3km erz= 591km  
 nr= 6 gap=268 rms=0.34  
 Locality: Zámoly  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.2	345	ePgC	8:22:37.74	0.01
			eSg	22:38.35	-0.25
CSKK	11.8	284	ePg	8:22:39.10	0.37
			eSg	22:40.73	0.35
PKST	29.9	253	ePgC	8:22:41.93	-0.03
			eSg	22:45.13	-1.00

58.

2015-02-05 time: 8:23:17.50 UTC ML= 0.8  
 lat: 47.443N lon: 18.409E h= 0.0 km  
 erh= 1.6km erz= 165km  
 nr= 5 gap=320 rms=0.07  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.8	194	ePgC	8:23:18.59	0.06
			eSg	23:19.30	-0.04
CSKK	14.3	232	ePg	8:23:19.91	-0.13
			eSg	23:22.06	0.03
PKST	34.9	234	ePgC	8:23:23.78	0.05

59.

2015-02-05 time: 10:20:36.94 UTC ML= 1.5  
 lat: 47.877N lon: 19.113E h= 0.0 km  
 erh= 4.6km erz= 738km  
 nr= 5 gap=216 rms=0.36  
 Locality: Szendehely  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	15.8	127	ePg	10:20:39.57	-0.19
			eSg	20:42.14	0.17
PSZ	58.6	85	eSg	10:20:55.30	-0.26
VYHS	71.7	343	ePg	10:20:50.30	0.56
			eSg	20:59.30	-0.42

60.

2015-02-09 time: 12:10:50.35 UTC ML= 1.2  
 lat: 47.371N lon: 17.590E h= 10.0 km  
 erh= 3.3km erz= 11.1km  
 nr= 5 gap=186 rms=0.29  
 Locality: Vanyola  
 Comments:

sta	dist	azm	phase	hr mn sec	res
EGYH	20.2	285	eSg	12:10:57.42	-0.08
MPLH	22.7	190	ePg	12:10:54.63	-0.15
			eSg	10:58.45	0.22
PKST	35.8	110	ePg	12:10:57.36	0.37
			eSg	11:01.68	-0.49

61.

2015-02-11 time: 8:39:30.82 UTC ML= 0.7  
 lat: 47.448N lon: 18.396E h= 0.0 km  
 erh= 2.5km erz= 308km  
 nr= 6 gap=311 rms=0.18  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.2	184	ePgC	8:39:32.05	0.12
			eSg	39:32.67	-0.13
CSKK	13.9	227	ePg	8:39:33.41	0.11
			eSg	39:35.00	-0.24
PKST	34.5	232	ePgC	8:39:36.81	-0.16
			eSg	39:42.11	0.34

62.

2015-02-11 time: 8:51:01.31 UTC ML= 1.1  
 lat: 47.339N lon: 18.457E h= 0.0 km  
 erh= 1.1km erz= 211km  
 nr= 7 gap=214 rms=0.14  
 Locality: Lovasberény  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	7.8	320	ePgC	8:51:02.75	0.06
			eSg	51:03.28	-0.50
CSKK	15.1	280	ePgD	8:51:04.07	0.06
			eSg	51:06.29	0.18
PKST	33.2	255	ePg	8:51:07.13	-0.11
			eSg	51:11.81	-0.05
PKSM	126.1	174	eSg	8:51:41.39	0.02

63.

2015-02-11 time: 11:12:48.74 UTC ML= 0.3  
 lat: 47.242N lon: 18.261E h= 0.0 km  
 erh= 5.4km erz= 741km  
 nr= 6 gap=246 rms=0.47  
 Locality: Iszkaszentgyörgy

## Hypocenter Parameters

## Földrengés paraméterek

Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	13.4	360	ePg	11:12:50.50			-0.64
			eSg	12:52.66			-0.35
PKST	17.3	276	ePg	11:12:52.08			0.26
			eSg	12:54.12			-0.10
PKSG	19.3	31	ePg	11:12:52.32			0.13
			eSg	12:55.84			0.96

64.

2015-02-12 time: 10:06:01.28 UTC ML= 1.0  
 lat: 47.124N lon: 17.991E h= 0.0 km  
 erh= 2.6km erz= 784km  
 nr= 10 gap=151 rms=0.62  
 Locality: Sóly  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	15.3	12	ePg	10:06:03.16			-0.86
			eSg	06:06.40			0.25
TIH	26.0	197	ePg	10:06:04.74			-1.18
			eSg	06:10.16			0.61
CSKK	33.5	38	ePg	10:06:07.36			0.10
			eSg	06:12.64			0.71
MPLH	34.6	278	ePg	10:06:07.96			0.50
			eSg	06:12.38			0.10
PKSG	42.4	46	ePg	10:06:08.57			-0.29
			eSg	06:15.40			0.63

65.

2015-02-13 time: 7:30:34.43 UTC ML= 0.8  
 lat: 47.354N lon: 18.163E h= 7.2 km  
 erh= 1.1km erz= 0.4km  
 nr= 6 gap=213 rms=0.02  
 Locality: Nagyveleg  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	7.4	82	ePgC	7:30:36.30			0.02
			eSg	30:37.70			-0.02
PKST	14.3	223	ePgD	7:30:37.30			0.00
			eSg	30:39.54			0.01
PKSG	17.7	76	ePgC	7:30:37.82			-0.02
			eSg	30:40.52			0.02

66.

2015-02-13 time: 7:37:56.47 UTC ML= 0.8  
 lat: 47.378N lon: 18.145E h= 6.2 km  
 erh= 1.9km erz= 1.7km  
 nr= 6 gap=233 rms=0.03  
 Locality: Nagyveleg  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	8.9	101	ePg	7:37:58.44			0.05
			eSg	37:59.86			-0.04
PKST	15.6	212	ePgD	7:37:59.44			-0.03
			eSg	38:01.84			0.03
PKSG	18.6	85	ePgC	7:37:59.96			-0.01
			eSg	38:02.71			0.01

67.

2015-02-13 time: 12:02:04.17 UTC ML= 0.5  
 lat: 47.393N lon: 18.644E h= 10.0 km  
 erh= 4.9km erz= 4.5km  
 nr= 6 gap=343 rms=0.26  
 Locality: Tabajd  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSG	19.1	270	ePgD	12:02:08.23			0.21
			eSg	02:11.12			0.09
CSKK	29.2	263	ePg	12:02:09.39			-0.28
			eSg	02:13.40			-0.56
PKST	48.4	252	ePg	12:02:13.10			0.10
			eSg	02:20.08			0.19

68.

2015-02-16 time: 8:24:05.01 UTC ML= 0.7  
 lat: 47.361N lon: 18.444E h= 0.0 km  
 erh= 1.1km erz= 128km  
 nr= 5 gap=300 rms=0.06  
 Locality: Gánt  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	5.3	310	ePgC	8:24:06.02			0.07
			eSg	24:06.62			-0.06
CSKK	13.9	271	ePgD	8:24:07.42			-0.06
			eSg	24:09.43			0.02
PKST	33.0	250	eSg	8:24:15.53			0.03

69.

2015-02-16 time: 8:24:39.50 UTC ML= 0.8  
 lat: 47.437N lon: 18.392E h= 0.0 km  
 erh= 0.2km erz= 19.9km  
 nr= 5 gap=307 rms=0.01  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	5.0	181	ePgC	8:24:40.41			0.01
			eSg	24:41.10			0.00
CSKK	12.9	230	ePgD	8:24:41.79			-0.01
			eSg	24:43.59			0.00
PKST	33.5	234	eSg	8:24:50.16			0.02

70.

2015-02-16 time: 10:29:57.20 UTC ML= 1.6  
 lat: 48.577N lon: 20.782E h= 0.0 km  
 erh= 2.5km erz= 2.8km  
 nr= 7 gap=152 rms=0.23  
 Locality: Tornanádaska  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
KECS	24.3	245	ePg	10:30:01.30			-0.23
			eSg	30:05.20			0.29
CRVS	61.7	54	ePg	10:30:08.10			-0.11
PSZ	98.5	222	ePg	10:30:14.86			0.07
			eSg	30:28.64			0.12
KOLS	116.6	70	eSg	10:30:34.70			0.45
VYHS	144.0	266	ePn	10:30:21.90			-0.29

71.

2015-02-16 time: 17:51:42.99 UTC ML= 1.3  
 lat: 47.743N lon: 16.143E h= 3.9 km  
 erh= 2.6km erz= 2.8km  
 nr= 20 gap=113 rms=0.95  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CONA	29.5	314	Pg	17:51:48.52			0.22
			Sg	51:53.00			0.56
SOP	31.9	102	ePgD	17:51:49.66			0.93
			eSg	51:53.90			0.70
ARSA	71.9	220	Pg	17:51:55.34			-0.51
			Sg	52:04.44			-1.45



## Földrengés paraméterek

## Hypocenter Parameters

ZST	87.6	55	ePg	17:51:58.30	-0.36
			eSg	52:09.60	-1.27
MODS	109.9	50	ePg	17:52:01.80	-0.83
			eSg	52:16.00	-1.94
SMOL	128.5	48	ePn	17:52:06.10	0.55
			eSn	52:22.60	-0.55
MOA	141.1	275	Pn	17:52:07.34	0.22
			Sn	52:24.42	-1.52
SOKA	145.2	215	Pn	17:52:07.91	0.28
TREC	179.3	344	ePn	17:52:12.30	0.42
			eSg	52:33.10	-1.31
OBKA	182.8	221	Pn	17:52:14.77	2.45
KHC	244.6	309	ePn	17:52:22.70	2.67
			eSn	52:51.30	2.38

72.

2015-02-17 time: 12:32:18.77 UTC ML= 0.4  
 lat: 47.217N lon: 18.263E h= 0.0 km  
 erh= 3.2km erz= 437km  
 nr= 6 gap=258 rms=0.27  
 Locality: Iszkkaszentgyörgy  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	16.2	359	ePg	12:32:21.19	-0.47
			eSg	32:23.78	-0.14
PKST	17.9	285	ePg	12:32:22.06	0.10
			eSg	32:24.41	-0.04
PKSG	21.7	27	ePg	12:32:22.85	0.21
			eSg	32:26.03	0.37

73.

2015-02-17 time: 22:39:09.44 UTC ML= 0.8  
 lat: 45.874N lon: 17.855E h= 7.5 km  
 erh= 1.2km erz= 1.2km  
 nr= 7 gap=275 rms=0.18  
 Locality: Sellye  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSV	30.9	87	ePgD	22:39:15.08	-0.04
			eSg	39:19.95	0.40
PKSM	71.6	58	ePg	22:39:22.16	-0.13
			eSg	39:32.23	-0.08
MORH	72.0	58	ePg	22:39:22.27	-0.09
			eSg	39:32.32	-0.12
TIH	114.1	1	eSn	22:39:45.91	0.34

74.

2015-02-18 time: 8:34:28.10 UTC ML= 0.8  
 lat: 47.355N lon: 18.434E h= 0.0 km  
 erh= 1.6km erz= 202km  
 nr= 6 gap=289 rms=0.12  
 Locality: Gánt  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.2	322	ePgC	8:34:29.13	0.11
			eSg	34:29.71	-0.04
CSKK	13.1	274	ePgC	8:34:30.37	-0.06
			eSg	34:32.04	-0.22
PKST	32.0	250	ePg	8:34:33.78	-0.03
			eSg	34:38.51	0.24

75.

2015-02-18 time: 8:34:59.40 UTC ML= 0.6  
 lat: 47.332N lon: 18.422E h= 0.0 km  
 erh= 4.9km erz= 651km  
 nr= 6 gap=274 rms=0.38  
 Locality: Zámoly

Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	7.1	341	ePgC	8:35:00.67	0.00
			eSg	35:01.36	-0.30
CSKK	12.7	286	ePgC	8:35:01.98	0.31
			eSg	35:03.87	0.43
PKST	30.4	255	ePg	8:35:04.76	-0.08
			eSg	35:07.97	-1.10

76.

2015-02-18 time: 8:42:36.79 UTC ML= 0.5  
 lat: 47.430N lon: 18.353E h= 0.0 km  
 erh= 5.4km erz= 629km  
 nr= 6 gap=275 rms=0.38  
 Locality: Oroszlány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.1	146	ePgC	8:42:37.60	-0.11
			eSg	42:38.15	-0.27
CSKK	10.2	223	ePgC	8:42:38.82	0.20
			eSg	42:40.71	0.67
PKST	30.7	232	ePg	8:42:42.35	0.08
			eSg	42:45.67	-0.88

77.

2015-02-23 time: 6:42:44.33 UTC ML= 0.5  
 lat: 47.147N lon: 18.219E h= 0.0 km  
 erh= 2.3km erz= 291km  
 nr= 6 gap=286 rms=0.17  
 Locality: Ősi  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	18.7	312	ePgC	6:42:47.83	0.15
			eSg	42:50.17	-0.12
CSKK	24.3	8	ePgD	6:42:48.58	-0.09
			eSg	42:51.84	-0.21
PKSG	30.2	26	ePg	6:42:49.68	-0.05
			eSg	42:54.36	0.42

78.

2015-02-23 time: 10:15:28.76 UTC ML= 1.6  
 lat: 48.628N lon: 20.738E h= 0.0 km  
 erh= 2.0km erz= 3.6km  
 nr= 11 gap=145 rms=0.51  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	24.6	229	ePg	10:15:33.00	-0.15
			eSg	15:37.00	0.42
CRVS	61.3	60	ePg	10:15:40.00	0.29
			eSg	15:48.00	-0.25
PSZ	100.7	218	ePg	10:15:47.29	0.55
			eSg	15:59.82	-0.95
LANS	109.8	302	ePg	10:15:48.70	0.34
			eSg	16:03.40	-0.25
KOLS	117.8	73	eSg	10:16:05.70	-0.51
VYHS	141.2	264	ePn	10:15:53.80	0.41
			eSn	16:11.10	-1.51

79.

2015-02-23 time: 11:13:38.36 UTC ML= 0.5  
 lat: 47.184N lon: 18.294E h= 0.0 km  
 erh= 2.2km erz= 298km  
 nr= 6 gap=275 rms=0.18  
 Locality: Sárkeszi  
 Comments: probably explosion

## Hypocenter Parameters

## Földrengés paraméterek

sta	dist	azm	phase	hr mn sec	res
CSKK	20.1	353	ePg	11:13:41.68	-0.26
			eSg	13:44.82	0.09
PKST	21.3	293	ePg	11:13:42.27	0.11
			eSg	13:45.08	-0.05
PKSG	24.2	18	ePg	11:13:42.93	0.25
			eSg	13:45.89	-0.17

80.

2015-02-23 time: 11:41:58.29 UTC ML= 0.8  
 lat: 47.243N lon: 18.262E h= 10.0 km  
 erh= 3.9km erz= 3.9km  
 nr= 10 gap=135 rms=0.11  
 Locality: Iszkaszentgyörgy  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	13.3	360	ePg	11:42:01.11	-0.15
			eSg	42:03.51	-0.07
PKST	17.3	276	ePg	11:42:01.79	-0.07
			eSg	42:04.80	0.16
PKSG	19.2	31	ePg	11:42:02.11	-0.04
			eSg	42:05.45	0.29
MORH	117.9	166	ePn	11:42:18.82	0.08
			eSn	42:34.72	0.02
PKSM	118.3	166	ePn	11:42:18.84	0.05
			eSn	42:34.69	-0.09

81.

2015-02-23 time: 19:09:16.78 UTC ML= 1.6  
 lat: 46.259N lon: 19.835E h= 3.0 km  
 erh= 1.8km erz= 2.4km  
 nr= 14 gap=170 rms=0.46  
 Locality: Zákányszék  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKS6	43.2	331	ePg	19:09:24.77	0.26
			eSg	09:30.90	0.35
PKS2	54.4	298	ePg	19:09:26.86	0.35
			eSg	09:38.46	-0.39
AMBH	69.4	82	ePg	19:09:29.16	-0.02
			eSg	09:38.46	-0.39
MORH	92.0	267	ePg	19:09:32.84	-0.37
			eSg	09:46.09	0.06
PKSM	92.2	267	ePg	19:09:33.23	-0.03
			eSg	09:45.70	-0.41
PKS7	101.7	330	ePg	19:09:35.13	0.18
			eSg	09:48.42	-0.70
PKS9	125.1	287	ePn	19:09:41.15	2.13
			eSn	09:55.55	-0.82
PKSV	129.2	251	ePn	19:09:40.03	0.49

82.

2015-02-26 time: 9:55:23.34 UTC ML= 0.9  
 lat: 47.434N lon: 18.410E h= 0.0 km  
 erh= 2.0km erz= 235km  
 nr= 6 gap=321 rms=0.14  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	4.9	197	ePg	9:55:24.31	0.09
			eSg	55:24.88	-0.03
CSKK	13.8	235	ePgD	9:55:25.71	-0.09
			eSg	55:27.48	-0.23
PKST	34.4	235	ePg	9:55:29.51	0.03
			eSg	55:34.57	0.29

83.

2015-02-26 time: 9:55:38.52 UTC ML= 0.8  
 lat: 47.444N lon: 18.419E h= 0.0 km  
 erh= 2.7km erz= 311km  
 nr= 6 gap=326 rms=0.19  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.2	200	ePg	9:55:39.76	0.13
			eSg	55:40.53	0.03
CSKK	15.0	233	ePg	9:55:41.18	-0.02
			eSg	55:42.84	-0.45
PKST	35.6	235	ePg	9:55:44.80	-0.08
			eSg	55:50.12	0.27

84.

2015-02-27 time: 9:42:27.87 UTC ML= 0.7  
 lat: 47.442N lon: 18.417E h= 0.0 km  
 erh= 3.7km erz= 415km  
 nr= 6 gap=325 rms=0.24  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.9	199	ePgC	9:42:29.10	0.17
			eSg	42:29.56	-0.19
CSKK	14.7	233	ePgD	9:42:30.50	0.01
			eSg	42:32.25	-0.29
PKST	35.3	235	ePg	9:42:33.98	-0.20
			eSg	42:39.67	0.57

85.

2015-02-27 time: 9:43:05.82 UTC ML= 0.5  
 lat: 47.374N lon: 18.429E h= 0.0 km  
 erh= 1.9km erz= 250km  
 nr= 6 gap=302 rms=0.14  
 Locality: Gánt  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	3.5	305	ePg	9:43:06.45	0.00
			eSg	43:06.91	-0.03
CSKK	12.8	265	ePg	9:43:07.93	-0.17
			eSg	43:10.05	0.17
PKST	32.4	247	ePg	9:43:11.80	0.19
			eSg	43:15.95	-0.18

86.

2015-02-27 time: 10:00:38.23 UTC ML= 0.8  
 lat: 47.447N lon: 18.400E h= 0.0 km  
 erh= 2.2km erz= 260km  
 nr= 6 gap=314 rms=0.15  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.1	187	ePgC	10:00:39.45	0.12
			eSg	00:40.09	-0.09
CSKK	14.1	229	ePgC	10:00:40.70	-0.04
			eSg	00:42.47	-0.23
PKST	34.6	233	ePg	10:00:44.34	-0.08
			eSg	00:49.59	0.35

87.

2015-03-02 time: 11:00:22.08 UTC ML= 0.4  
 lat: 47.472N lon: 18.037E h= 0.0 km  
 erh= 6.4km erz= 848km  
 nr= 6 gap=288 rms=0.51

## Földrengés paraméterek

## Hypocenter Parameters

Locality: Kisbér  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	20.8	126	ePg	11:00:26.64	0.85
			eSg	00:28.86	0.18
PKST	23.7	180	ePg	11:00:26.29	-0.02
			eSg	00:29.56	-0.05
PKSG	28.1	108	ePg	11:00:26.82	-0.29
			eSg	00:30.11	-0.92

88.

2015-03-02 time: 11:07:21.44 UTC ML= 1.6  
lat: 47.896N lon: 19.125E h= 0.0 km  
erh= 4.1km erz= 6.4km  
nr= 14 gap=169 rms=1.08  
Locality: Rétság  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	16.6	135	ePg	11:07:23.79	-0.61
			eSg	07:26.06	-0.65
BUD	46.5	189	ePg	11:07:32.71	2.98
PSZ	57.6	88	ePg	11:07:31.56	-0.17
			eSg	07:39.00	-0.75
PKSG	78.6	225	eSg	11:07:46.00	-0.43
CSKK	87.9	228	ePg	11:07:37.24	0.10
			eSg	07:51.51	2.13
PKST	108.4	229	eSg	11:07:54.98	-0.91
KECS	120.4	57	ePg	11:07:43.40	0.45
			eSg	08:00.10	0.38
MPLH	144.1	236	ePn	11:07:46.88	0.44
			eSn	08:04.50	-1.44
EGYH	144.8	248	eSn	11:08:02.93	-3.17

89.

2015-03-03 time: 8:50:03.84 UTC ML= 0.7  
lat: 47.458N lon: 18.464E h= 0.0 km  
erh= 8.8km erz= 669km  
nr= 6 gap=341 rms=0.45  
Locality: Bodmér  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	9.2	217	ePgC	8:50:05.50	0.03
			eSg	50:06.03	-0.72
CSKK	18.6	236	ePgC	8:50:06.77	-0.39
			eSg	50:09.82	0.07
PKST	39.3	236	ePgC	8:50:11.60	0.75
			eSg	50:16.26	-0.06

90.

2015-03-03 time: 8:50:32.08 UTC ML= 0.8  
lat: 47.442N lon: 18.416E h= 0.0 km  
erh= 1.6km erz= 179km  
nr= 6 gap=324 rms=0.10  
Locality: Várgesztes  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.9	199	ePgC	8:50:33.25	0.12
			eSg	50:33.82	-0.13
CSKK	14.6	233	ePgC	8:50:34.57	-0.12
			eSg	50:36.70	-0.03
PKST	35.3	235	ePgC	8:50:38.39	0.01
			eSg	50:43.44	0.15

91.

2015-03-03 time: 8:50:57.98 UTC ML= 0.8  
lat: 47.320N lon: 18.454E h= 0.0 km  
erh= 4.7km erz= 589km  
nr= 6 gap=289 rms=0.35  
Locality: Pátka  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	9.3	329	ePgC	8:50:59.62	-0.01
			eSg	51:00.13	-0.80
CSKK	15.4	288	ePgC	8:51:00.94	0.21
			eSg	51:03.55	0.68
PKST	32.5	258	ePgC	8:51:03.74	-0.04
			eSg	51:08.00	-0.31

92.

2015-03-03 time: 10:34:03.87 UTC ML= 1.6  
lat: 48.583N lon: 20.782E h= 0.0 km  
erh= 6.9km erz= 769km  
nr= 7 gap=172 rms=0.50  
Locality: Slovakia  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	24.6	243	ePg	10:34:08.10	-0.15
			eSg	34:12.00	0.33
CRVS	61.3	55	ePg	10:34:15.20	0.39
			eSg	34:22.00	-1.34
PSZ	99.1	222	ePg	10:34:21.67	0.11
			eSg	34:34.85	-0.51
KOLS	116.3	70	eSg	10:34:41.40	0.55

93.

2015-03-03 time: 11:14:19.89 UTC ML= 1.7  
lat: 48.437N lon: 19.317E h= 0.0 km  
erh= 1.8km erz= 3.4km  
nr= 7 gap=124 rms=1.41  
Locality: Slovakia  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PSZ	71.9	143	ePg	11:14:34.08	1.35
			eSg	14:42.98	0.23
LANS	80.1	8	ePg	11:14:35.60	1.40
			eSg	14:45.30	-0.06
KECS	86.6	87	ePg	11:14:35.10	-0.26
			eSg	14:45.20	-2.22
MODS	151.2	267	eSn	11:15:02.80	-3.17

94.

2015-03-03 time: 12:15:16.78 UTC ML= 0.6  
lat: 47.484N lon: 18.042E h= 0.0 km  
erh= 3.8km erz= 503km  
nr= 6 gap=290 rms=0.29  
Locality: Kisbér  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	21.3	129	ePg	12:15:21.05	0.47
			eSg	15:23.76	0.22
PKST	25.0	181	ePg	12:15:21.16	-0.08
			eSg	15:24.56	-0.16
PKSG	28.2	111	ePg	12:15:21.73	-0.09
			eSg	15:25.25	-0.50

## Hypocenter Parameters

## Földrengés paraméterek

95.  
 2015-03-04 time: 6:33:10.93 UTC ML= 0.4  
 lat: 47.454N lon: 18.216E h= 0.0 km  
 erh= 2.6km erz= 390km  
 nr= 6 gap=266 rms=0.23  
 Locality: Bokod  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	10.7	162	ePg	6:33:13.21			0.37
			eSg		33:14.44		0.12
PKSG	14.9	118	ePg	6:33:13.51			-0.08
			eSg		33:15.26		-0.40
PKST	25.7	212	ePg	6:33:15.54			0.02
			eSg		33:18.92		-0.18

96.  
 2015-03-04 time: 9:35:06.34 UTC ML= 0.7  
 lat: 47.126N lon: 18.115E h= 0.0 km  
 erh= 1.4km erz= 427km  
 nr= 8 gap=136 rms=0.31  
 Locality: Berhida  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	16.0	338	ePg	9:35:08.84			-0.36
			eSg		35:10.80		-0.63
CSKK	28.6	23	ePg	9:35:11.65			0.20
			eSg		35:15.54		0.11
MPLH	43.9	276	ePg	9:35:14.63			0.45
			eSg		35:20.50		0.20
MORH	109.0	158	ePg	9:35:25.86			0.06
PKSM	109.3	158	ePg	9:35:25.65			-0.21

97.  
 2015-03-04 time: 11:59:03.96 UTC ML= 0.7  
 lat: 47.477N lon: 18.048E h= 0.0 km  
 erh= 2.9km erz= 380km  
 nr= 6 gap=288 rms=0.23  
 Locality: Vérteskethely  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	20.4	128	ePg	11:59:07.80			0.20
			eSg		59:10.68		0.24
PKST	24.2	183	ePg	11:59:08.34			0.05
			eSg		59:11.45		-0.22
PKSG	27.5	110	ePg	11:59:08.88			0.01
			eSg		59:12.17		-0.53

98.  
 2015-03-04 time: 12:21:08.18 UTC ML= 2.0  
 lat: 48.539N lon: 19.350E h= 0.0 km  
 erh= 3.3km erz= 4.7km  
 nr= 11 gap=172 rms=0.66  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
VYHS	38.3	262	ePg	12:21:15.30			0.28
			eSg		21:20.10		-0.26
PSZ	80.0	150	ePg	12:21:22.95			0.48
			eSg		21:32.83		-0.79
PENC	83.4	183	ePg	12:21:23.71			0.63
			eSg		21:34.07		-0.63
KECS	84.1	94	ePg	12:21:23.00			-0.21
			eSg		21:33.70		-1.23
MODS	154.4	263	ePn	12:21:33.30			-1.17
			eSn		21:51.40		-3.57*
CRVS	160.5	75	ePn	12:21:35.80			0.57

99.  
 2015-03-06 time: 7:21:49.95 UTC ML= 0.8  
 lat: 47.384N lon: 18.484E h= 0.0 km  
 erh= 3.8km erz= 368km  
 nr= 6 gap=331 rms=0.22  
 Locality: Csákvár  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	7.1	277	ePgC	7:21:51.55			0.33
			eSg		21:51.93		-0.28
CSKK	17.1	262	ePg	7:21:52.92			-0.08
			eSg		21:55.42		0.05
PKST	36.8	248	ePg	7:21:56.28			-0.23
			eSg		22:01.71		0.07

100.  
 2015-03-06 time: 11:08:14.93 UTC ML= 0.3  
 lat: 47.445N lon: 18.107E h= 0.0 km  
 erh= 3.4km erz= 452km  
 nr= 6 gap=270 rms=0.28  
 Locality: Bakonysárkány  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	14.7	128	ePg	11:08:17.90			0.34
			eSg		08:19.55		-0.06
PKST	21.3	195	ePg	11:08:18.54			-0.20
			eSg		08:21.69		-0.02
PKSG	22.2	105	ePg	11:08:19.11			0.22
			eSg		08:21.44		-0.55

101.  
 2015-03-08 time: 22:17:35.92 UTC ML= 2.2  
 lat: 47.917N lon: 20.793E h= 0.9 km  
 erh= 2.3km erz= 2.6km  
 nr= 30 gap= 85 rms=1.19  
 Locality: Emőd  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
KECS	66.9	340	ePg	22:17:48.30			0.43
			eSg		17:57.30		0.11
PSZ	67.2	270	ePg	22:17:47.45			-0.46
			eSg		17:56.57		-0.70
BSZH	79.3	210	ePg	22:17:49.63			-0.44
			eSg		18:00.30		-0.81
LTVH	102.1	125	ePg	22:17:53.13			-1.03
			eSg		18:07.27		-1.11
PENC	114.0	263	ePg	22:17:55.28			-0.99
			eSg		18:10.34		-1.81
CRVS	120.2	24	ePg	22:17:56.90			-0.47
			eSg		18:12.40		-1.71
PKS7	156.5	232	eSn	22:18:20.78			-2.19
			ePn	22:18:03.10			0.64
KOLS	157.3	44	eSn	18:23.50			0.34
			ePn	22:18:02.80			0.14
VYHS	159.0	294	eSn	18:22.10			-1.42
			ePn	22:18:05.00			1.15
LANS	168.5	324	eSn	18:25.20			-0.43
			ePn	22:18:06.05			1.58
PKS6	173.5	212	eSn	18:26.73			-0.02
			ePn	22:18:05.60			-0.89
PKSG	189.7	252	ePn	22:18:09.38			1.78
			eSn	18:34.42			2.10
PKS2	198.6	217	ePn	22:18:12.66			2.38
			eSn	22:18:16.21			3.31
PKST	220.1	251	eSn	18:45.58			3.84
			ePn	22:18:17.14			3.14
PKS9	241.1	232	eSn	18:45.58			3.84
			ePn	22:18:17.14			3.14
MORH	249.9	221	ePn	22:18:17.14			3.14
			eSn	18:45.58			3.84

## Földrengés paraméterek

PKSM 250.4 221 ePn 22:18:16.33 2.27  
 MPLH 258.7 251 ePn 22:18:09.78 -5.31\*  
 KOVH 288.6 225 ePn 22:18:23.02 4.19

102.

2015-03-08 time: 22:21:06.86 UTC ML= 1.8  
 lat: 47.895N lon: 20.763E h= 1.7 km  
 erh= 1.8km erz= 2.4km  
 nr= 23 gap= 86 rms=0.85  
 Locality: Vatta  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PSZ	65.0	272	ePg	22:21:18.44	-0.03
			eSg	21:27.59	0.07
KECS	68.6	343	ePg	22:21:19.10	-0.02
			eSg	21:28.40	-0.28
BSZH	75.9	209	ePgD	22:21:20.57	0.15
			eSg	21:31.38	0.38
LTVH	102.6	124	ePgC	22:21:24.35	-0.83
			eSg	21:38.22	-1.25
PENC	111.5	264	ePgD	22:21:26.42	-0.35
			eSg	21:40.62	-1.68
CRVS	123.4	25	ePg	22:21:28.30	-0.60
			eSg	21:45.40	-0.69
PKS7	153.2	232	ePn	22:21:32.63	-0.14
			eSn	21:52.41	-0.58
VYHS	158.0	295	ePn	22:21:35.30	1.92
			eSn	21:52.50	-1.56
KOLS	160.7	44	ePn	22:21:34.90	1.18
			eSn	21:54.40	-0.27
LANS	169.3	326	ePn	22:21:36.30	1.52
			eSn	21:56.60	0.04
PKSG	186.8	253	ePn	22:21:38.19	1.22
MORH	246.5	221	ePn	22:21:45.64	1.23
			eSn	22:08.05	-5.65*
PKSM	247.0	221	ePn	22:21:45.71	1.24
			eSn	22:08.03	-5.77*

103.

2015-03-09 time: 8:18:12.07 UTC ML= 0.7  
 lat: 47.433N lon: 18.382E h= 0.0 km  
 erh= 1.1km erz= 137km  
 nr= 6 gap=299 rms=0.08  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	4.6	172	ePgC	8:18:12.96	0.06
			eSg	18:13.50	-0.05
CSKK	12.1	230	ePgC	8:18:14.27	0.04
			eSg	18:15.74	-0.17
PKST	32.7	234	ePgC	8:18:17.84	-0.07
			eSg	18:22.58	0.12

104.

2015-03-09 time: 8:18:43.13 UTC ML= 0.6  
 lat: 47.439N lon: 18.371E h= 0.0 km  
 erh= 1.2km erz= 124km  
 nr= 5 gap=292 rms=0.06  
 Locality: Oroszlány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.4	164	ePgC	8:18:44.04	-0.06
			eSg	18:44.91	0.05
CSKK	11.8	225	ePgC	8:18:45.32	0.08
			eSg	18:46.84	-0.05
PKST	32.3	232	ePgC	8:18:48.89	-0.02

## Hypocenter Parameters

105.

2015-03-09 time: 9:55:43.59 UTC ML= 2.3  
 lat: 47.886N lon: 20.799E h= 1.2 km  
 erh= 2.5km erz= 3.2km  
 nr= 22 gap= 81 rms=1.03  
 Locality: Vatta  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PSZ	67.7	273	ePgC	9:55:55.49	-0.19
			eSg	56:04.58	-0.54
KECS	70.3	341	ePg	9:55:56.30	0.15
			eSg	56:05.40	-0.55
BSZH	76.5	212	ePgD	9:55:57.83	0.58
			eSg	56:08.43	0.52
LTVH	99.8	124	ePg	9:56:01.46	0.05
			eSg	56:15.27	-0.04
PENC	114.1	265	ePg	9:56:03.56	-0.40
			eSg	56:17.64	-2.22
CRVS	123.2	23	ePg	9:56:04.90	-0.68
			eSg	56:20.40	-2.33
PKS7	154.8	233	ePn	9:56:10.18	0.41
			eSn	56:29.23	-0.96
KOLS	159.6	43	ePn	9:56:11.20	0.83
			eSn	56:31.20	-0.06
VYHS	160.8	295	ePn	9:56:12.10	1.57
			eSn	56:30.20	-1.34
LANS	171.6	325	ePn	9:56:15.10	3.24
			eSn	56:33.70	-0.22
DRGR	188.9	130	PnD	9:56:12.03	-2.00
PKSM	248.1	221	ePn	9:56:25.63	4.23
			eSn	56:55.95	5.05*
GZR	315.8	151	PnD	9:56:28.48	-1.37*

106.

2015-03-10 time: 8:50:07.60 UTC ML= 0.7  
 lat: 47.440N lon: 18.382E h= 0.0 km  
 erh= 3.3km erz= 395km  
 nr= 6 gap=300 rms=0.23  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.4	173	ePgC	8:50:08.53	-0.04
			eSg	50:09.20	-0.13
CSKK	12.6	227	ePgC	8:50:09.87	0.03
			eSg	50:12.10	0.51
PKST	33.1	232	ePgC	8:50:13.59	0.08
			eSg	50:17.55	-0.57

107.

2015-03-10 time: 8:50:37.48 UTC ML= 0.6  
 lat: 47.448N lon: 18.384E h= 0.0 km  
 erh= 4.3km erz= 495km  
 nr= 5 gap=304 rms=0.23  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.2	175	ePgC	8:50:38.57	-0.02
			eSg	50:39.25	-0.20
CSKK	13.2	225	ePgC	8:50:39.93	0.09
			eSg	50:42.16	0.48
PKST	33.7	232	eSg	8:50:47.84	-0.36

108.

2015-03-10 time: 8:51:09.83 UTC ML= 0.7  
 lat: 47.435N lon: 18.377E h= 0.0 km  
 erh= 0.9km erz=99.2km  
 nr= 5 gap=295 rms=0.05

## Hypocenter Parameters

## Földrengés paraméterek

Locality: Várgesztes  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	4.9	168	ePgC	8:51:10.73	0.02
			eSg	51:11.33	-0.06
CSKK	11.9	228	ePgC	8:51:11.94	-0.01
			eSg	51:13.70	0.09
PKST	32.5	233	eSg	8:51:20.11	-0.04

109.

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2015-03-10 time: 8:54:24.29 UTC ML= 0.7  
lat: 47.455N lon: 18.374E h= 0.0 km  
erh= 2.6km erz= 335km  
nr= 6 gap=300 rms=0.19  
Locality: Várgesztes  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	7.1	170	ePgC	8:54:25.63	0.06
			eSg	54:26.39	-0.17
CSKK	13.3	220	ePg	8:54:27.02	0.35
			eSg	54:28.61	0.09
PKST	33.6	230	ePgC	8:54:30.07	-0.23
			eSg	54:34.93	-0.06

110.

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2015-03-10 time: 12:46:40.49 UTC ML= 0.5  
lat: 47.465N lon: 18.039E h= 0.0 km  
erh= 1.2km erz= 140km  
nr= 5 gap=286 rms=0.06  
Locality: Vérteskethely  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	20.2	124	ePg	12:46:44.18	0.08
			eSg	46:46.95	0.04
PKST	23.0	181	ePgC	12:46:44.60	0.01
			eSg	46:47.76	-0.02
PKSG	27.8	107	ePg	12:46:45.34	-0.11

111.

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2015-03-11 time: 9:54:24.08 UTC ML= 0.4  
lat: 46.161N lon: 18.285E h= 0.0 km  
erh= 2.3km erz= 443km  
nr= 8 gap=197 rms=0.32  
Locality: Zobákpuszta  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	16.4	241	ePg	9:54:26.86	-0.15
			eSg	54:29.71	0.42
PKSM	28.1	78	ePgC	9:54:28.86	-0.23
			eSg	54:33.59	0.58
MORH	28.4	78	ePgC	9:54:28.82	-0.33
			eSg	54:33.62	0.52
PKSV	30.4	185	ePgC	9:54:29.36	-0.14
			eSg	54:33.96	0.23

112.

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2015-03-11 time: 12:16:06.54 UTC ML= 0.5  
lat: 47.454N lon: 18.071E h= 0.0 km  
erh= 2.2km erz= 291km  
nr= 6 gap=279 rms=0.17  
Locality: Bakonysárkány  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	17.5	125	ePg	12:16:09.88	0.22
			eSg	16:12.30	0.20

PKST	21.8	187	ePg	12:16:10.48	0.05
			eSg	16:13.30	-0.17
PKSG	25.1	106	ePg	12:16:10.88	-0.14
			eSg	16:14.31	-0.21

113.

---

2015-03-12 time: 7:52:53.95 UTC ML= 0.5  
lat: 47.418N lon: 18.403E h= 0.0 km  
erh= 6.6km erz= 799km  
nr= 6 gap=318 rms=0.46  
Locality: Gánt  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	3.1	198	ePgC	7:52:54.49	-0.01
			eSg	52:54.97	0.03
CSKK	12.4	240	ePg	7:52:55.74	-0.43
			eSg	52:57.04	-0.86
PKST	33.1	238	ePg	7:53:00.38	0.53
			eSg	53:05.07	0.61

114.

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2015-03-12 time: 7:53:06.54 UTC ML= 0.8  
lat: 47.442N lon: 18.394E h= 0.0 km  
erh= 6.3km erz= 791km  
nr= 6 gap=310 rms=0.49  
Locality: Várgesztes  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.6	183	ePgC	7:53:07.41	-0.13
			eSg	53:08.26	-0.06
CSKK	13.4	229	ePg	7:53:08.67	-0.26
			eSg	53:09.96	-0.84
PKST	34.0	233	ePg	7:53:13.45	0.84
			eSg	53:17.70	0.36

115.

---

2015-03-12 time: 8:23:17.99 UTC ML= 0.6  
lat: 46.174N lon: 18.295E h= 0.0 km  
erh= 1.1km erz= 206km  
nr= 7 gap=202 rms=0.14  
Locality: Zobákpuszta  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	17.7	235	ePg	8:23:20.87	-0.21
			eSg	23:23.87	0.12
PKSM	27.5	82	ePgC	8:23:22.86	0.12
			eSg	23:26.56	-0.15
MORH	27.8	81	ePg	8:23:22.83	0.04
			eSg	23:26.80	0.00
PKSV	32.4	185	eSg	8:23:28.22	0.01

116.

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2015-03-12 time: 19:11:56.42 UTC ML= 1.4  
lat: 46.114N lon: 16.646E h= 10.0 km  
erh= 4.1km erz= 5.2km  
nr= 13 gap=147 rms=0.68  
Locality: Croatia  
Comments:

sta	dist	azm	phase	hr mn sec	res
KOGS	48.0	321	iPg	19:12:05.22	0.03
			iSg	12:11.95	-0.07
GCIS	83.5	251	ePg	19:12:11.06	-0.39
CRES	97.5	251	iPg	19:12:13.75	-0.18
			eSg	12:27.49	-0.10
LEGS	104.4	260	eP*	19:12:14.77	-0.35
KOVH	112.5	91	ePn	19:12:14.84	-1.37

## Földrengés paraméterek

## Hypocenter Parameters

eSn 12:28.62 -3.01\*  
 BOJS 127.8 238 iPn 19:12:19.00 0.89  
 PKSM 154.5 86 ePn 19:12:22.72 1.27  
 eSn 12:40.61 -0.36  
 MORH 154.8 86 ePn 19:12:22.31 0.83  
 eSn 12:40.84 -0.18

PKST 32.7 232 ePg 8:32:42.68 -0.28  
 eSg 32:48.23 0.72

117.

2015-03-17 time: 8:03:00.85 UTC ML= 1.2  
 lat: 45.857N lon: 18.411E h= 0.0 km  
 erh= 2.1km erz= 326km  
 nr= 9 gap=262 rms=0.24  
 Locality: Nagyharsány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	12.8	286	ePg	8:03:02.86	-0.27
			eSg	03:05.18	0.26
KOVH	35.2	317	ePgC	8:03:07.12	-0.02
			eSg	03:11.96	-0.09
PKSM	43.3	24	ePgC	8:03:08.57	-0.01
			eSg	03:14.50	-0.11
MORH	43.8	24	ePgC	8:03:08.63	-0.04
			eSg	03:14.64	-0.13
PKS9	81.8	353	ePg	8:03:16.28	0.83

118.

2015-03-17 time: 12:15:12.10 UTC ML= 0.5  
 lat: 47.473N lon: 18.050E h= 0.0 km  
 erh= 5.1km erz= 588km  
 nr= 5 gap=286 rms=0.27  
 Locality: Vérteskethely  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	20.0	128	ePg	12:15:15.66	-0.02
			eSg	15:18.91	0.44
PKST	23.8	183	ePgC	12:15:16.55	0.19
			eSg	15:19.25	-0.42
PKSG	27.2	109	ePg	12:15:16.73	-0.24

119.

2015-03-18 time: 12:20:38.74 UTC ML= 0.4  
 lat: 47.445N lon: 18.086E h= 0.0 km  
 erh= 1.2km erz= 163km  
 nr= 6 gap=274 rms=0.09  
 Locality: Bakonysárkány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	16.0	125	ePg	12:20:41.61	0.02
			eSg	20:43.95	0.13
PKST	21.0	191	ePg	12:20:42.46	-0.03
			eSg	20:45.39	-0.04
PKSG	23.7	104	ePg	12:20:43.04	0.07
			eSg	20:46.05	-0.22

120.

2015-03-19 time: 8:32:37.13 UTC ML= 0.8  
 lat: 47.441N lon: 18.374E h= 0.0 km  
 erh= 3.5km erz= 435km  
 nr= 6 gap=295 rms=0.26  
 Locality: Oroszlány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.6	167	ePgC	8:32:38.14	0.02
			eSg	32:38.76	-0.14
CSKK	12.2	225	ePgC	8:32:39.44	0.14
			eSg	32:40.79	-0.20

121.

2015-03-19 time: 8:38:19.34 UTC ML= 1.0  
 lat: 47.449N lon: 18.447E h= 0.0 km  
 erh= 6.2km erz= 522km  
 nr= 5 gap=338 rms=0.26  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	7.6	214	ePgC	8:38:20.96	0.25
			eSg	38:21.48	-0.29
CSKK	17.0	236	ePgC	8:38:22.32	-0.06
			eSg	38:24.35	-0.40
PKST	37.7	236	eSg	8:38:31.62	0.30

122.

2015-03-19 time: 8:38:49.36 UTC ML= 0.7  
 lat: 47.439N lon: 18.408E h= 0.0 km  
 erh= 1.4km erz= 170km  
 nr= 6 gap=319 rms=0.10  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.4	194	ePgC	8:38:50.40	0.08
			eSg	38:50.96	-0.11
CSKK	14.0	233	ePgC	8:38:51.74	-0.11
			eSg	38:53.93	0.14
PKST	34.6	235	ePg	8:38:55.61	0.07
			eSg	39:00.27	-0.08

123.

2015-03-19 time: 11:43:29.26 UTC ML= 1.9  
 lat: 48.559N lon: 19.347E h= 0.0 km  
 erh= 2.5km erz= 6.4km  
 nr= 11 gap=105 rms=0.79  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
VYHS	38.4	259	ePg	11:43:36.60	0.48
			eSg	43:41.50	0.03
LANS	66.4	8	ePg	11:43:41.80	0.69
			eSg	43:49.60	-0.76
PSZ	82.1	150	ePgD	11:43:44.43	0.51
			eSg	43:54.76	-0.59
KECS	84.6	96	ePg	11:43:44.40	0.03
			eSg	43:55.00	-1.15
SRO	113.0	223	eSg	11:44:04.20	-1.00
MODS	154.4	262	ePn	11:43:56.80	1.25
			eSn	44:13.70	-2.35

124.

2015-03-20 time: 15:52:48.08 UTC ML= 0.5  
 lat: 47.375N lon: 18.037E h= 8.9 km  
 erh= 1.3km erz= 1.5km  
 nr= 5 gap=265 rms=0.05  
 Locality: Súr  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKST	13.0	181	ePgC	15:52:50.89	0.00
			eSg	52:53.07	-0.01
CSKK	17.0	95	ePg	15:52:51.45	-0.05
			eSg	52:54.14	-0.03
PKSG	26.8	86	eSg	15:52:57.15	0.10

## Hypocenter Parameters

## Földrengés paraméterek

125.

2015-03-21 time: 12:13:30.12 UTC ML= 1.5  
 lat: 48.370N lon: 19.834E h= 0.0 km  
 erh= 1.3km erz= 362km  
 nr= 6 gap=155 rms=0.21  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	49.9	75	ePg	12:13:38.80	-0.22
			eSg	13:46.00	0.04
PSZ	50.4	175	ePgD	12:13:39.29	0.17
			eSg	13:45.96	-0.18
VYHS	75.1	281	ePg	12:13:43.80	0.27
			eSg	13:53.70	-0.29

126.

2015-03-21 time: 20:07:22.73 UTC ML= 0.2  
 lat: 47.319N lon: 18.178E h= 9.2 km  
 erh= 2.6km erz= 0.8km  
 nr= 6 gap=176 rms=0.04  
 Locality: Balinka  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	8.0	51	ePg	20:07:24.94	0.04
			eSg	07:26.55	-0.05
PKST	12.7	239	ePgD	20:07:25.48	-0.05
			eSg	07:27.79	0.07
PKSG	18.0	63	ePg	20:07:26.36	0.02
			eSg	07:29.16	0.00

127.

2015-03-24 time: 18:45:50.66 UTC ML= 1.4  
 lat: 47.551N lon: 18.900E h= 10.0 km  
 erh= 1.9km erz= 1.5km  
 nr= 27 gap= 67 rms=0.74  
 Locality: Nagykovácsi  
 Comments:

sta	dist	azm	phase	hr mn sec	res
BUD	11.9	129	ePgC	18:45:53.31	-0.13
			eSg	45:54.89	-0.72
PENC	39.2	47	ePg	18:45:58.02	0.15
			eSg	46:03.66	0.16
PKSG	42.3	245	ePg	18:45:58.68	0.27
			eSg	46:04.33	-0.13
CSKK	52.5	247	ePg	18:46:07.27	7.06*
			ePg	18:46:03.68	-0.13
PKST	72.9	244	eSg	46:14.03	-0.03
			ePg	18:46:06.07	0.12
PSZ	85.1	61	eSg	46:17.81	-0.07
			eP*	18:46:09.70	0.26
VYHS	105.0	357	eS*	46:21.10	-2.99
			eP*	18:46:08.88	-0.58
TIH	105.1	227	eS*	46:24.40	0.28
			ePn	18:46:10.49	0.22
MPLH	111.1	248	eSn	46:25.30	-0.27
			ePn	18:46:10.57	-0.44
PKS9	117.1	204	eSn	46:26.15	-0.73
			eSn	18:46:27.65	0.10
PKS2	120.1	169	ePnC	18:46:14.63	-0.45
			eSn	46:33.70	-0.42
MORH	149.7	187	ePnC	18:46:14.63	-0.50
			eSn	46:33.25	-0.97
MODS	151.9	307	ePn	18:46:17.00	1.65
			eSn	46:34.60	-0.01
KOVH	173.7	201	ePn	18:46:21.00	2.93
			eSn	46:39.97	0.53

128.

2015-03-25 time: 8:12:28.06 UTC ML= 0.8  
 lat: 47.433N lon: 18.364E h= 0.0 km  
 erh= 7.3km erz= 861km  
 nr= 6 gap=284 rms=0.52  
 Locality: Oroszlány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.1	156	ePgC	8:12:28.79	-0.17
			eSg	12:29.34	-0.33
CSKK	11.0	225	ePgC	8:12:30.07	0.04
			eSg	12:32.63	1.06
PKST	31.6	232	ePgC	8:12:33.99	0.29
			eSg	12:36.91	-1.18

129.

2015-03-25 time: 10:16:26.05 UTC ML= 0.6  
 lat: 46.175N lon: 18.283E h= 0.0 km  
 erh= 1.7km erz= 313km  
 nr= 8 gap=205 rms=0.23  
 Locality: Zobákpuszta  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	17.1	236	ePgC	10:16:29.04	-0.06
			eSg	16:32.00	0.51
PKSM	28.0	82	ePgC	10:16:31.02	-0.02
			eSg	16:34.73	-0.21
MORH	28.3	81	ePgC	10:16:30.95	-0.14
			eSg	16:35.74	0.71
PKSV	32.0	184	ePgC	10:16:31.66	-0.09
			eSg	16:36.27	0.07

130.

2015-03-26 time: 6:10:41.85 UTC ML= 0.6  
 lat: 47.409N lon: 18.228E h= 0.2 km  
 erh= 5.0km erz= 106km  
 nr= 6 gap=237 rms=0.09  
 Locality: Pusztavám  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	5.6	154	ePg	6:10:43.00	0.14
			eSg	10:43.54	-0.10
PKSG	12.4	99	ePgD	6:10:44.00	-0.07
			eSg	10:45.84	0.05
PKST	22.2	221	ePg	6:10:45.87	0.06
			eSg	10:48.80	-0.11

131.

2015-03-26 time: 12:36:49.46 UTC ML= 1.3  
 lat: 47.109N lon: 17.976E h= 10.0 km  
 erh= 2.0km erz= 1.5km  
 nr= 19 gap=108 rms=0.61  
 Locality: Kádárta  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKST	17.2	15	ePgD	12:36:52.33	-0.69
			eSg	36:55.00	-0.79
TIH	24.1	195	ePg	12:36:54.52	0.40
			eSg	36:59.25	1.49
MPLH	33.8	282	ePg	12:36:55.75	-0.01
			eSg	37:00.02	-0.65
CSKK	35.5	37	ePgD	12:36:55.59	-0.46
			eSg	37:01.29	0.11
PKSG	44.4	45	ePg	12:36:58.08	0.49
			eSg	37:04.52	0.59
MORH	111.7	153	ePn	12:37:09.25	0.10



## Földrengés paraméterek

## Hypocenter Parameters

	eSn	37:23.57	-0.93
PKSM 112.0 153	ePn	12:37:09.05	-0.13
	eSn	37:22.91	-1.66
KOVH 113.9 175	ePn	12:37:09.79	0.37
	eSn	37:24.24	-0.74
MODS 150.0 340	eSn	12:37:33.20	0.19
VYHS 166.9 23	ePn	12:37:17.40	1.37
	eSn	37:38.00	1.25

132.

2015-03-27 time: 2:53:40.88 UTC ML=-0.4  
 lat: 47.411N lon: 18.238E h= 10.0 km  
 erh= 0.1km erz= ---km  
 nr= 6 gap=238 rms=0.07  
 Locality: Pusztavám  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	5.6	162	ePgD	2:53:43.01	0.09
			eSg	53:44.56	0.05
PKSG	11.7	100	ePg	2:53:43.62	-0.01
			eSg	53:45.64	-0.14
PKST	22.8	222	ePgD	2:53:45.34	0.01
			eSg	53:48.70	-0.10

133.

2015-03-27 time: 11:22:53.58 UTC ML= 0.5  
 lat: 46.009N lon: 18.361E h= 0.0 km  
 erh= 2.7km erz= 246km  
 nr= 6 gap=250 rms=0.14  
 Locality: Lothárd  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	22.1	293	ePg	11:22:57.49	-0.03
			eSg	23:00.55	-0.04
PKSM	31.2	44	ePg	11:22:59.21	0.06
			eSg	23:03.79	0.29
MORH	31.7	44	ePg	11:22:59.24	0.00
			eSg	23:03.35	-0.30

134.

2015-03-27 time: 12:13:29.12 UTC ML= 1.9  
 lat: 48.647N lon: 20.732E h= 0.0 km  
 erh= 2.2km erz= 3.5km  
 nr= 12 gap=143 rms=0.62  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	25.8	225	ePg	12:13:33.50	-0.22
			eSg	13:37.70	0.39
CRVS	60.6	62	ePg	12:13:40.40	0.45
			eSg	13:47.60	-0.80
PSZ	102.1	217	ePg	12:13:47.55	0.19
			eSg	14:00.46	-1.13
LANS	108.3	301	ePg	12:13:49.20	0.74
			eSg	14:03.60	0.06
KOLS	117.6	74	ePg	12:13:50.60	0.47
			eSg	14:05.30	-1.21
VYHS	141.0	263	ePn	12:13:54.20	0.47
			eSn	14:12.10	-0.83

135.

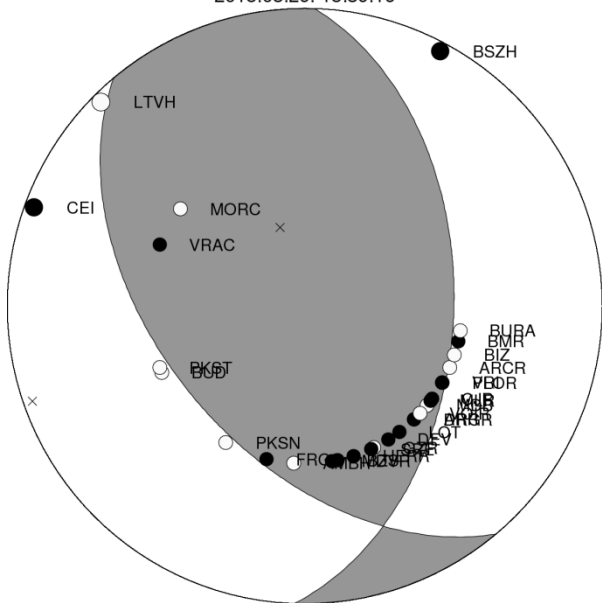
2015-03-29 time: 15:39:16.66 UTC ML= 3.1  
 lat: 48.073N lon: 20.886E h= 0.5 km  
 erh= 2.0km erz= 2.1km  
 nr= 57 gap= 66 rms=1.24  
 Locality: Alsózsolca  
 Comments: felt 5 EMS

sta	dist	azm	phase	hr mn sec	res
PSZ	76.0	257	ePg	15:39:29.71	-0.52
			eSg	39:39.31	-1.50
BSZH	97.7	208	PgC	15:39:34.38	0.27
			Sg	39:45.00	-2.72
CRVS	101.6	25	ePg	15:39:35.30	0.51
			eSg	39:48.10	-0.83
LTVH	107.9	135	ePgD	15:39:36.34	0.42
			eSg	39:50.94	-0.01
PENC	124.0	255	ePg	15:39:38.01	-0.78
			eSg	39:54.93	-1.13
CBI	125.2	110	PgC	15:39:39.94	0.92
			Sg	39:55.20	-1.26
KOLS	140.2	47	eSn	15:39:58.80	-1.37
PKSN	151.6	210	ePnD	15:39:43.46	0.94
			eSn	40:03.39	0.69
BUD	154.2	245	ePnD	15:39:42.13	-0.72
			eSn	40:02.73	-0.55
LANS	159.1	319	ePn	15:39:44.20	0.74
			eSn	40:04.40	0.04
VYHS	159.2	287	ePn	15:39:42.60	-0.87
			eSn	40:02.40	-1.99
PKS7	172.8	229	ePn	15:39:46.20	1.03
			eSn	40:08.02	0.61
SRO2	189.5	260	ePn	15:39:49.90	2.66
			eSn	40:13.80	2.70
PKS6	191.8	211	ePn	15:39:49.10	1.56
			eSn	40:14.09	2.46
AMBH	191.9	184	ePnD	15:39:48.10	0.55
			eSn	40:13.87	2.23
SRO	194.4	261	ePn	15:39:50.20	2.34
			eSn	40:15.50	3.30
DRGR	198.1	136	PnC	15:39:47.30	-1.02
BMR	200.3	103	PnC	15:39:47.96	-0.63
			Sn	40:12.50	-1.00
PKSG	202.0	248	ePn	15:39:48.65	-0.15
			eSn	40:12.46	-1.41
CSKK	212.3	248	ePn	15:39:50.32	0.24
			eSn	40:15.50	-0.66
PKS2	216.6	216	ePn	15:39:56.91	6.28*
PKST	232.5	247	ePnD	15:39:52.35	-0.27
			eSn	40:17.76	-2.90
CJR	254.5	126	PnC	15:39:54.76	-0.59
			Sn	40:24.00	-1.53
PKS9	257.2	230	ePn	15:40:00.35	4.66
TIH	260.6	240	ePn	15:40:00.69	4.58
MORH	267.5	219	ePn	15:40:02.11	5.14
PKSM	268.0	219	ePn	15:40:01.79	4.76
MODS	270.3	277	ePn	15:39:57.80	0.48
			eSn	40:29.00	-0.04
MPLH	270.9	248	ePn	15:39:57.54	0.14
EGYH	276.4	255	ePn	15:39:55.71	-2.37
			eSn	40:24.31	-6.08*
BZS	278.7	168	PnC	15:39:57.64	-0.72
			Sn	40:29.20	-1.70
ZST	282.0	273	ePn	15:39:59.20	0.42
			eSn	40:30.30	-1.34
ARCR	283.0	113	PnD	15:39:58.37	-0.54
			Sn	40:29.80	-2.06
DEV	287.7	148	PnC	15:39:58.85	-0.65
BANR	299.7	176	Sn	15:40:32.90	-2.66*
KOVH	305.7	224	ePn	15:39:59.95	-1.79*
MORC	309.8	308	PnD	15:40:02.25	0.00*
PKSV	314.9	220	ePn	15:40:01.91	-0.97*
SOP	326.7	262	ePn	15:40:04.41	0.06*
BURA	328.1	99	PnD	15:40:04.13	-0.40*
			Sn	40:41.70	-0.17*
GZR	331.0	154	PnD	15:40:04.61	-0.29*
			Sn	40:40.60	-1.93*
FRGS	336.8	194	PnC	15:40:04.98	-0.63*
MDB	341.2	129	PnD	15:40:06.07	-0.09*
VRAC	344.7	293	PnC	15:40:05.55	-1.04*
LOT	365.6	143	PnC	15:40:09.07	-0.13*
MDVR	371.3	170	PnC	15:40:08.73	-1.19*

### Hypocenter Parameters

KRLC	373.6	307	ePn	15:40:10.50	0.30*
HERR	373.7	162	PnC	15:40:09.38	-0.84*
CONA	375.3	268	Pn	15:40:10.13	-0.29*
BIZ	412.8	108	PnD	15:40:14.76	-0.33*
ARSA	413.1	257	Pn	15:40:14.95	-0.18*
			Sn	40:58.44	-2.30*
ARR	415.3	136	PnC	15:40:15.33	-0.08*
			Sn	40:59.00	-2.24*
DPC	418.0	307	ePn	15:40:17.00	1.25*
			eSn	41:20.60	18.76*
SRE	419.0	155	PnC	15:40:15.61	-0.25*
VOIR	432.5	133	PnD	15:40:17.42	-0.12*
UPC	446.2	307	ePn	15:40:31.70	12.45*
			eSn	41:28.80	20.72*
SOKA	468.5	251	Pn	15:40:21.96	-0.08*
MLR	481.3	127	PnC	15:40:23.76	0.13*
MOA	495.1	267	Pn	15:40:25.18	-0.17*
PLOR	503.4	119	PnD	15:40:26.53	0.14*
VRI	507.7	119	PnC	15:40:27.30	0.38*
OBKA	510.0	250	Pn	15:40:27.99	0.78*
KHC	551.7	282	ePn	15:40:31.30	-1.11*
			eSn	41:26.60	-4.91*
KBA	578.1	259	Pn	15:40:36.42	0.72*

2015.03.29. 15:39:16



### 136.

2015-03-30 time: 7:54:40.28 UTC ML= 1.2  
 lat: 47.360N lon: 18.429E h= 0.0 km  
 erh= 3.0km erz= 543km  
 nr= 8 gap=236 rms=0.38  
 Locality: Gánt  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	4.6	321	ePgC	7:54:41.12	0.01
			eSg	54:41.72	-0.03
CSKK	12.8	272	ePg	7:54:42.40	-0.16
			eSg	54:44.50	0.16
PKST	31.9	249	ePgC	7:54:45.65	-0.33
			eSg	54:50.76	0.33
VYHS	129.7	14	ePg	7:55:04.50	1.05
			eSg	55:21.00	-0.52

### 137.

2015-03-30 time: 8:10:43.05 UTC ML= 1.0  
 lat: 47.459N lon: 18.390E h= 0.0 km  
 erh= 3.5km erz= 430km  
 nr= 6 gap=309 rms=0.26  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	7.5	180	ePgC	8:10:44.49	0.11
			eSg	10:45.04	-0.39
CSKK	14.5	222	ePgD	8:10:45.89	0.26
			eSg	10:47.78	0.13
PKST	34.9	230	ePg	8:10:48.87	-0.41
			eSg	10:54.20	0.06

### 138.

2015-03-30 time: 9:36:26.49 UTC ML= 2.0  
 lat: 48.548N lon: 19.331E h= 0.0 km  
 erh= 2.2km erz= 3.6km  
 nr= 11 gap=106 rms=0.67  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
VYHS	37.1	261	ePg	9:36:33.70	0.59
			eSg	36:38.40	0.13
LANS	67.8	8	ePg	9:36:39.00	0.41
			eSg	36:47.30	-0.72
PSZ	81.5	149	ePg	9:36:41.49	0.44
			eSg	36:51.95	-0.46
PENC	84.3	183	eSg	9:36:53.04	-0.24
KECS	85.6	95	ePg	9:36:41.50	-0.27
			eSg	36:52.00	-1.69
MODS	153.2	263	eSn	9:37:10.80	-2.20
CRVS	161.6	76	eSn	9:37:15.40	0.53

### 139.

2015-03-31 time: 9:17:29.82 UTC ML= 0.6  
 lat: 45.870N lon: 18.410E h= 0.0 km  
 erh= 0.9km erz= 84.4km  
 nr= 5 gap=254 rms=0.04  
 Locality: Villány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	12.4	279	ePg	9:17:32.07	0.03
			eSg	17:33.75	-0.02
PKSM	42.0	25	ePgC	9:17:37.29	-0.02
			eSg	17:43.23	0.07
MORH	42.5	25	eSg	9:17:43.28	-0.04

### 140.

2015-03-31 time: 9:22:04.43 UTC ML= 0.8  
 lat: 45.836N lon: 18.429E h= 0.0 km  
 erh= 2.6km erz= 292km  
 nr= 6 gap=272 rms=0.17  
 Locality: Nagyarsány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	14.9	293	ePg	9:22:07.13	0.03
			eSg	22:09.11	-0.06
PKSM	44.9	21	ePgC	9:22:12.66	0.21
			eSg	22:18.70	-0.01
MORH	45.4	22	ePg	9:22:12.22	-0.32
			eSg	22:18.90	0.03

## Földrengés paraméterek

## Hypocenter Parameters

141.

2015-04-01 time: 0:34:34.70 UTC ML= 2.0  
 lat: 48.014N lon: 20.837E h= 10.0 km  
 erh= 3.6km erz= 3.6km  
 nr= 13 gap= 85 rms=0.69  
 Locality: Mályi  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PSZ	71.2	261	ePg	0:34:47.54	0.00
			eSg	34:56.64	-0.91
BSZH	90.3	208	ePgC	0:34:51.40	0.48
			eP*	0:34:53.30	-0.37
LTVH	106.2	131	eS*	35:08.61	0.15
			ePn	0:34:53.25	-2.03
PENC	118.9	258	eSn	35:12.26	0.92
			ePn	0:34:58.90	0.07
KOLS	147.4	46	eSn	35:17.20	-0.45
			ePn	0:35:00.60	0.46
VYHS	157.9	290	eSn	35:19.90	-0.08
			ePn	0:35:01.40	0.78
LANS	161.7	321	eSn	35:20.70	-0.14

142.

2015-04-01 time: 5:30:17.68 UTC ML= 0.5  
 lat: 47.296N lon: 18.341E h= 0.0 km  
 erh= 1.5km erz= 252km  
 nr= 6 gap=241 rms=0.15  
 Locality: Magyaralmás  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	9.7	321	ePg	5:30:19.30	-0.11
			eSg	30:20.69	-0.07
PKSG	11.3	19	ePgC	5:30:19.68	-0.02
			eSg	30:21.58	0.30
PKST	23.6	260	ePgD	5:30:21.80	-0.10
			eSg	30:25.44	0.26

143.

2015-04-01 time: 6:37:09.63 UTC ML= 0.5  
 lat: 47.175N lon: 18.229E h= 0.0 km  
 erh= 0.8km erz=99.6km  
 nr= 5 gap=275 rms=0.05  
 Locality: Csór  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	17.4	302	ePg	6:37:12.74	0.00
			eSg	37:15.18	0.01
CSKK	21.1	7	ePg	6:37:13.31	-0.08
			eSg	37:16.36	0.04
PKSG	27.1	27	ePg	6:37:14.50	0.04

144.

2015-04-01 time: 6:42:46.35 UTC ML= 0.4  
 lat: 47.210N lon: 18.179E h= 0.0 km  
 erh= 8.6km erz= 956km  
 nr= 5 gap=258 rms=0.43  
 Locality: Bakonykúti  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	12.2	296	ePgC	6:42:48.39	-0.15
			eSg	42:50.61	0.36
CSKK	18.1	20	ePgD	6:42:49.09	-0.49
			eSg	42:52.02	-0.08
PKSG	25.7	38	ePg	6:42:51.67	0.72

145.

2015-04-01 time: 9:21:52.60 UTC ML= 0.6  
 lat: 47.329N lon: 18.320E h= 5.7 km  
 erh= 1.8km erz= 1.9km  
 nr= 6 gap=213 rms=0.17  
 Locality: Söréd  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	5.9	309	ePg	9:21:53.88	-0.18
			eSg	21:54.97	-0.24
PKSG	8.7	37	ePgC	9:21:54.49	0.03
			eSg	21:56.14	0.23
PKST	23.0	250	ePgC	9:21:56.82	-0.02
			eSg	22:00.43	0.29

146.

2015-04-01 time: 9:25:52.67 UTC ML= 1.2  
 lat: 47.352N lon: 18.290E h= 4.2 km  
 erh= 4.0km erz= 1.6km  
 nr= 9 gap=182 rms=0.41  
 Locality: Csákberény  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	2.6	299	ePg	9:25:53.41	-0.14
			eSg	25:54.62	0.38
PKSG	8.8	60	ePg	9:25:54.04	-0.37
			eSg	25:55.85	0.08
PKST	21.9	242	ePgD	9:25:56.27	-0.39
			eSg	25:59.77	0.00
MPLH	60.3	250	ePgC	9:26:03.96	0.50
VYHS	133.4	18	ePn	9:26:16.30	0.50
			eSn	26:32.90	-0.94

147.

2015-04-01 time: 10:56:21.16 UTC ML= 0.6  
 lat: 46.020N lon: 18.054E h= 0.0 km  
 erh= ---km erz= ---km  
 nr= 4 gap=320 rms=0.07  
 Locality: Bicsérd  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	8.4	25	ePg	10:56:22.64	-0.02
			eSg	56:23.78	-0.05
PKSM	50.2	65	ePg	10:56:30.05	-0.07
MORH	50.6	64	ePg	10:56:30.30	0.11

148.

2015-04-01 time: 14:39:23.26 UTC ML= 1.2  
 lat: 47.493N lon: 18.705E h= 1.4 km  
 erh= 2.2km erz=37.4km  
 nr= 12 gap=152 rms=0.45  
 Locality: Herceghalom  
 Comments:

sta	dist	azm	phase	hr mn sec	res
BUD	24.1	92	ePg	14:39:27.21	-0.35
			eSg	39:30.98	0.06
PKSG	26.2	245	ePg	14:39:27.39	-0.56
			eSg	39:31.46	-0.15
CSKK	36.5	247	ePg	14:39:29.36	-0.42
			eSg	39:35.48	0.61
MPLH	95.1	248	ePg	14:39:40.72	0.48
			eSg	39:55.19	1.70
PSZ	101.1	62	ePg	14:39:41.90	0.59
			eSg	39:55.78	0.40
VYHS	111.8	5	ePg	14:39:43.10	-0.12
			eSg	39:58.70	-0.09

## Hypocenter Parameters

## Földrengés paraméterek

149.

2015-04-02 time: 7:56:32.57 UTC ML= 0.8  
 lat: 47.448N lon: 18.419E h= 0.0 km  
 erh= 4.6km erz= 520km  
 nr= 6 gap=325 rms=0.30  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.6	199	ePgC	7:56:33.92	0.18
			eSg	56:34.52	-0.13
CSKK	15.2	232	ePg	7:56:35.25	-0.03
			eSg	56:36.98	-0.42
PKST	35.8	234	ePg	7:56:38.77	-0.20
			eSg	56:44.71	0.75

150.

2015-04-02 time: 11:08:48.31 UTC ML= 0.5  
 lat: 47.194N lon: 18.296E h= 0.0 km  
 erh= 2.6km erz= 240km  
 nr= 5 gap=272 rms=0.11  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	19.0	352	ePg	11:08:51.54	-0.16
PKST	21.1	290	ePg	11:08:52.22	0.15
			eSg	08:54.92	-0.08
PKSG	23.2	18	ePg	11:08:52.45	0.01
			eSg	08:55.74	0.07

151.

2015-04-02 time: 17:10:20.54 UTC ML= 1.7  
 lat: 46.151N lon: 16.785E h= 10.0 km  
 erh= 2.8km erz= 1.9km  
 nr= 20 gap=146 rms=0.66  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
KOGS	52.8	309	Pg	17:10:30.50	0.37
			eSg	10:36.40	-1.22
KOVH	101.9	94	ePgD	17:10:39.24	0.42
			eSg	10:51.20	-1.89
CRES	109.0	251	Pn	17:10:40.00	0.11
			eSn	10:54.30	-0.68
PKSV	117.3	104	ePn	17:10:40.78	-0.14
			eSn	10:54.87	-1.95
MPLH	127.2	27	ePn	17:10:42.50	0.34
			eSn	10:59.72	0.70
PKSM	143.5	87	ePn	17:10:44.89	0.70
			eSn	11:03.62	0.98
MORH	143.8	87	ePn	17:10:43.36	-0.86
			eSn	11:02.75	0.06
SOKA	146.9	294	Pn	17:10:44.69	0.08
			Sn	11:03.70	0.31
ARSA	155.7	322	Pn	17:10:45.89	0.18
			Sn	11:03.01	-2.34
OBKA	176.7	283	Sn	17:11:13.41	3.41*
MOA	269.0	315	Pn	17:10:59.97	0.14
			Sn	11:30.25	-0.24

152.

2015-04-08 time: 9:25:39.37 UTC ML= 1.9  
 lat: 48.892N lon: 20.511E h= 0.0 km  
 erh= 2.5km erz= 6.0km  
 nr= 8 gap=158 rms=0.54  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	45.5	182	ePg	9:25:47.70	0.20
			eSg	25:53.10	-0.74
CRVS	69.7	89	ePg	9:25:52.40	0.59
			eSg	26:00.70	-0.82
LANS	81.5	291	eSg	9:26:05.20	-0.08
PSZ	117.5	203	ePg	9:26:01.05	0.70
			eSg	26:16.59	-0.13
VYHS	131.0	250	ePn	9:26:02.40	-0.34
			eSn	26:17.20	-3.76*

153.

2015-04-09 time: 8:48:56.11 UTC ML= 0.6  
 lat: 46.171N lon: 18.297E h= 0.0 km  
 erh= 0.8km erz= 166km  
 nr= 8 gap=200 rms=0.13  
 Locality: Zobákpusztá  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	17.8	239	ePg	8:48:59.12	-0.17
			eSg	49:01.76	-0.01
PKSM	27.0	80	ePg	8:49:00.98	0.05
			eSg	49:04.43	-0.25
MORH	27.2	79	ePg	8:49:00.96	-0.02
			eSg	49:04.89	0.11
PKSV	31.5	186	ePg	8:49:01.93	0.19
			eSg	49:06.17	0.03

154.

2015-04-09 time: 10:18:29.72 UTC ML= 0.2  
 lat: 47.191N lon: 18.310E h= 0.0 km  
 erh= 2.1km erz= 280km  
 nr= 6 gap=275 rms=0.16  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	19.5	349	ePg	10:18:33.34	0.15
			eSg	18:36.13	0.22
PKST	22.2	290	ePg	10:18:33.68	0.00
			eSg	18:36.60	-0.17
PKSG	23.1	15	ePg	10:18:33.85	0.01
			eSg	18:36.75	-0.31

155.

2015-04-09 time: 11:09:20.98 UTC ML= 0.7  
 lat: 46.135N lon: 18.053E h= 12.2 km  
 erh= 1.7km erz= 1.5km  
 nr= 8 gap=288 rms=0.55  
 Locality: Hetvehely  
 Comments:

sta	dist	azm	phase	hr mn sec	res
KOVH	6.3	146	ePg	11:09:22.73	-0.71
			eSg	09:24.02	-1.34
PKSV	31.5	151	ePg	11:09:27.24	0.23
			eSg	09:31.45	-0.26
PKSM	46.2	79	ePgD	11:09:29.97	0.46
			eSg	09:36.41	0.24
MORH	46.5	79	ePgD	11:09:30.07	0.51
			eSg	09:35.96	-0.30

156.

2015-04-10 time: 8:56:58.19 UTC ML= 0.4  
 lat: 45.978N lon: 18.628E h= 0.0 km  
 erh= 1.9km erz= 176km  
 nr= 6 gap=248 rms=0.10  
 Locality: Mohács

## Földrengés paraméterek

## Hypocenter Parameters

Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSM	26.0	2	ePg	8:57:02.77			-0.07
			eSg	57:06.47			0.01
MORH	26.5	3	ePgD	8:57:03.05			0.13
			eSg	57:06.45			-0.16
PKSV	30.8	251	ePg	8:57:03.60			-0.08
			eSg	57:08.07			0.11

157.

2015-04-11 time: 8:55:16.67 UTC ML= 1.0  
 lat: 45.528N lon: 17.961E h= 13.5 km  
 erh= 2.5km erz= 1.0km  
 nr= 8 gap=335 rms=0.14  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSV	46.0	30	ePg	8:55:25.54			0.31
			eSg	55:31.81			-0.10
KOVH	63.2	10	ePg	8:55:28.11			-0.10
			eSg	55:37.28			0.07
PKSM	92.5	35	eP*	8:55:33.18			-0.05
			eS*	55:46.06			-0.09
MORH	93.0	35	eP*	8:55:33.19			-0.12
			eS*	55:46.44			0.16

158.

2015-04-13 time: 9:38:30.17 UTC ML= 0.4  
 lat: 47.402N lon: 18.034E h= 0.0 km  
 erh= 2.4km erz= 257km  
 nr= 5 gap=273 rms=0.12  
 Locality: Aka  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	15.9	180	ePg	9:38:32.89			-0.12
			eSg	38:35.29			0.06
CSKK	17.6	104	ePg	9:38:33.50			0.18
			eSg	38:35.68			-0.10
PKSG	27.0	92	eSg	9:38:38.71			-0.03

159.

2015-04-14 time: 9:56:59.38 UTC ML= 1.7  
 lat: 48.646N lon: 20.732E h= 0.0 km  
 erh= 3.1km erz= 4.7km  
 nr= 10 gap=156 rms=0.71  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
KECS	25.6	225	ePg	9:57:03.60			-0.36
			eSg	57:07.60			0.07
CRVS	60.7	62	ePg	9:57:10.70			0.47
			eSg	57:17.60			-1.09
PSZ	102.0	218	ePg	9:57:18.25			0.65
			eSg	57:30.93			-0.87
LANS	108.3	301	ePg	9:57:19.30			0.57
			eSg	57:33.40			-0.42
VYHS	140.9	263	ePn	9:57:25.00			1.01
			eSn	57:41.90			-1.28

160.

2015-04-15 time: 7:14:54.94 UTC ML= 0.4  
 lat: 47.180N lon: 18.206E h= 0.0 km  
 erh= 8.4km erz= 906km  
 nr= 5 gap=273 rms=0.43  
 Locality: Csór  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	15.7	304	ePgC	7:14:57.87			0.13
			eSg	14:59.97			0.05
CSKK	20.8	12	ePg	7:14:58.48			-0.17
			eSg	15:00.71			-0.83
PKSG	27.4	31	eSg	7:15:04.40			0.75

161.

2015-04-15 time: 7:18:00.10 UTC ML= 0.4  
 lat: 47.158N lon: 18.243E h= 0.0 km  
 erh= 2.1km erz= 274km  
 nr= 6 gap=282 rms=0.16  
 Locality: Nádasdladány  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	19.4	305	ePg	7:18:03.50			-0.07
			eSg	18:06.19			-0.08
CSKK	22.9	3	ePgD	7:18:04.20			0.02
			eSg	18:07.49			0.13
PKSG	28.3	23	ePg	7:18:05.34			0.19
			eSg	18:08.65			-0.44

162.

2015-04-15 time: 9:51:07.31 UTC ML= 0.9  
 lat: 45.799N lon: 18.630E h= 0.0 km  
 erh= 2.1km erz= 253km  
 nr= 6 gap=287 rms=0.15  
 Locality: Croatia  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSV	31.0	289	ePgD	9:51:12.71			-0.13
			eSg	51:17.32			0.16
PKSM	45.9	1	ePgD	9:51:15.61			0.10
			eSg	51:21.59			-0.32
MORH	46.4	1	ePgD	9:51:15.68			0.09
			eSg	51:22.09			0.04
PKS9	91.7	343	ePg	9:51:17.39			-6.30*

163.

2015-04-15 time: 12:41:32.85 UTC ML= 1.0  
 lat: 47.085N lon: 18.008E h= 0.0 km  
 erh= 2.1km erz= 769km  
 nr= 10 gap=131 rms=0.60  
 Locality: Litér  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	19.4	6	ePg	12:41:35.80			-0.51
			eSg	41:38.60			-0.42
CSKK	36.3	32	ePg	12:41:40.06			0.72
			eSg	41:44.72			0.32
MPLH	36.8	285	ePg	12:41:40.06			0.65
			eSg	41:43.67			-0.86
PKSG	44.7	40	eSg	12:41:46.73			-0.34
MORH	108.2	153	eSg	12:42:07.01			-0.24
PKSM	108.5	153	ePg	12:41:52.91			0.68
			eSg	42:06.55			-0.80

164.

2015-04-16 time: 21:38:59.08 UTC ML=-0.3  
 lat: 47.380N lon: 18.230E h= 8.5 km  
 erh= 4.5km erz= 1.3km  
 nr= 6 gap=216 rms=0.08  
 Locality: Mór  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
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## Hypocenter Parameters

CSKK 2.9 129 ePg 21:39:00.73 0.05  
 eSg 39:01.84 -0.09  
 PKSG 12.2 84 ePg 21:39:01.77 0.04  
 eSg 39:03.78 -0.02  
 PKST 20.0 228 ePgD 21:39:02.88 -0.08  
 eSg 39:06.14 0.15

165.

2015-04-18 time: 1:19:06.25 UTC ML= 0.8  
 lat: 47.322N lon: 18.204E h= 9.2 km  
 erh= 2.5km erz= 1.2km  
 nr= 11 gap=145 rms=0.28  
 Locality: Bodajk  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	6.3	43	ePgC	1:19:08.24	0.00
			eSg	19:09.95	0.16
PKST	14.6	241	ePgC	1:19:09.10	-0.23
			eSg	19:11.49	-0.23
PKSG	16.1	61	ePgD	1:19:09.46	-0.10
			eSg	19:12.28	0.13
TIH	52.5	207	ePg	1:19:16.04	0.28
MPLH	53.0	251	ePgD	1:19:15.56	-0.30
			eSg	19:24.14	0.79
VYHS	138.6	20	ePn	1:19:29.50	0.10
			eSn	19:45.40	-2.05*

166.

2015-04-21 time: 19:25:21.66 UTC ML= 0.9  
 lat: 46.994N lon: 17.496E h= 13.8 km  
 erh= 2.9km erz= 2.1km  
 nr= 12 gap=235 rms=0.43  
 Locality: Nyirád  
 Comments:

sta	dist	azm	phase	hr mn sec	res
MPLH	19.8	10	ePgD	19:25:25.81	-0.16
			eSg	25:29.13	-0.20
TIH	32.0	109	ePg	19:25:28.02	0.14
			eSg	25:32.17	-0.57
PKST	50.4	54	ePg	19:25:31.06	0.08
			eSg	25:39.27	1.01
PKS9	75.0	127	ePg	19:25:38.02	2.74*
PKSG	81.0	57	ePgD	19:25:36.29	-0.03
			eSg	25:48.26	0.50
MORH	123.4	135	ePn	19:25:42.45	0.13
			eSn	25:57.13	-1.31
PKSM	123.6	135	ePn	19:25:42.70	0.36
			eSn	25:56.88	-1.59

167.

2015-04-23 time: 11:28:17.36 UTC ML= 0.5  
 lat: 47.181N lon: 18.305E h= 0.0 km  
 erh= 2.5km erz= 332km  
 nr= 6 gap=278 rms=0.20  
 Locality: Sárkeszi  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	20.6	351	ePg	11:28:20.90	-0.13
			eSg	28:23.49	-0.40
PKST	22.2	293	ePg	11:28:21.36	0.03
			eSg	28:24.56	0.13
PKSG	24.4	16	ePg	11:28:21.73	0.02
			eSg	28:25.44	0.34

## Földrengés paraméterek

168.

2015-04-28 time: 6:28:24.44 UTC ML= 0.8  
 lat: 47.332N lon: 18.497E h= 0.0 km  
 erh= 3.2km erz= 402km  
 nr= 6 gap=307 rms=0.23  
 Locality: Lovasberény  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	10.5	310	ePg	6:28:26.40	0.09
			eSg	28:27.48	-0.29
CSKK	18.2	281	ePg	6:28:27.55	-0.15
			eSg	28:30.74	0.50
PKST	35.9	257	ePg	6:28:30.99	0.13
			eSg	28:35.64	-0.22

169.

2015-04-29 time: 10:08:41.64 UTC ML= 0.5  
 lat: 47.223N lon: 18.277E h= 0.0 km  
 erh= 3.1km erz= 425km  
 nr= 6 gap=258 rms=0.25  
 Locality: Iszkaszentgyörgy  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	15.6	355	ePg	10:08:44.92	0.50
			eSg	08:46.36	-0.23
PKST	18.8	282	ePg	10:08:44.77	-0.22
			eSg	08:47.74	0.13
PKSG	20.6	25	ePgC	10:08:45.23	-0.09
			eSg	08:48.18	-0.01

170.

2015-04-29 time: 10:46:25.63 UTC ML= 0.7  
 lat: 46.119N lon: 18.088E h= 0.0 km  
 erh= 1.8km erz= 227km  
 nr= 8 gap=271 rms=0.16  
 Locality: Abaliget  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	3.5	165	ePgC	10:46:26.14	-0.12
			eSg	46:26.77	0.02
PKSV	28.6	154	ePgD	10:46:30.86	0.12
			eSg	46:34.67	-0.05
PKSM	43.9	76	ePgC	10:46:33.47	-0.01
			eSg	46:39.96	0.36
MORH	44.3	76	ePgC	10:46:33.53	-0.01
			eSg	46:39.16	-0.54

171.

2015-04-30 time: 10:31:45.22 UTC ML= 1.3  
 lat: 46.959N lon: 17.761E h= 0.0 km  
 erh= 6.2km erz= 851km  
 nr= 7 gap=280 rms=0.56  
 Locality: Pécsely  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
MPLH	28.9	324	ePg	10:31:50.63	0.25
			eSg	31:53.91	-0.49
PKST	39.3	32	ePg	10:31:53.00	0.77
			eSg	31:57.66	-0.04
CSKK	58.7	40	ePg	10:31:55.98	0.27
			eSg	32:03.93	0.03
PKSG	67.8	45	ePg	10:31:56.25	-1.07

## Földrengés paraméterek

## Hypocenter Parameters

172.

2015-05-04 time: 7:04:18.04 UTC ML= 0.5  
 lat: 47.463N lon: 18.405E h= 0.0 km  
 erh= 0.6km erz=56.8km  
 nr= 5 gap=317 rms=0.03  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	8.0	188	ePgC	7:04:19.50	0.02
			eSg	04:20.55	-0.04
CSKK	15.6	224	ePg	7:04:20.80	-0.03
			eSg	04:23.03	0.03
PKST	36.1	231	ePgC	7:04:24.49	0.00

173.

2015-05-04 time: 9:10:12.24 UTC ML= 1.1  
 lat: 47.868N lon: 19.422E h= 0.0 km  
 erh= 4.5km erz= \*\*\*km  
 nr= 6 gap=150 rms=0.75  
 Locality: Bercel  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	13.6	231	ePg	9:10:14.54	-0.12
			eSg	10:17.09	0.55
PSZ	35.8	81	ePg	9:10:18.00	-0.63
			eSg	10:24.12	0.51
VYHS	82.1	328	ePg	9:10:27.80	0.89
			eSg	10:36.90	-1.45

174.

2015-05-05 time: 9:30:34.59 UTC ML= 1.9  
 lat: 48.552N lon: 19.382E h= 0.0 km  
 erh= 1.9km erz= 723km  
 nr= 10 gap=104 rms=0.58  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
VYHS	40.8	261	ePg	9:30:42.00	0.12
			eSg	30:46.90	-0.67
LANS	66.9	5	ePg	9:30:47.30	0.77
			eSg	30:54.90	-0.95
PSZ	80.1	152	ePg	9:30:49.85	0.97
			eSg	30:59.82	-0.21
KECS	81.9	95	ePg	9:30:49.50	0.29
			eSg	31:00.40	-0.22
PENC	85.0	185	ePg	9:30:49.37	-0.39
			eSg	31:01.09	-0.50

175.

2015-05-05 time: 10:12:05.20 UTC ML= 0.3  
 lat: 47.222N lon: 18.280E h= 0.0 km  
 erh= 0.8km erz= 106km  
 nr= 6 gap=258 rms=0.06  
 Locality: Iszkaszentgyörgy  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	15.7	355	ePgC	10:12:08.01	0.01
			eSg	12:10.06	-0.13
PKST	19.0	282	ePgD	10:12:08.56	-0.03
			eSg	12:11.32	0.08
PKSG	20.6	24	ePg	10:12:08.88	0.00
			eSg	12:11.84	0.09

176.

2015-05-06 time: 11:41:01.18 UTC ML= 1.6  
 lat: 48.357N lon: 19.840E h= 0.0 km  
 erh= 1.9km erz= 709km  
 nr= 10 gap=102 rms=0.55  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PSZ	48.9	175	ePgD	11:41:10.52	0.60
			eSg	41:17.17	0.44
KECS	49.8	74	ePg	11:41:10.00	-0.07
			eSg	41:16.10	-0.91
PENC	75.5	213	ePg	11:41:14.39	-0.27
			eSg	41:24.06	-1.11
VYHS	75.9	282	ePg	11:41:15.20	0.47
			eSg	41:24.90	-0.39
LANS	92.4	343	ePg	11:41:18.20	0.52
			eSg	41:30.10	-0.45

177.

2015-05-07 time: 9:22:10.25 UTC ML= 1.6  
 lat: 48.632N lon: 20.584E h= 0.0 km  
 erh= 5.9km erz= 753km  
 nr= 6 gap=300 rms=0.47  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	18.1	204	ePg	9:22:13.30	-0.19
			eSg	22:17.30	1.29
PSZ	94.5	213	ePg	9:22:26.71	-0.41
			eSg	22:40.26	-0.02
VYHS	129.9	263	ePg	9:22:33.70	0.25
			eSg	22:51.30	-0.25

178.

2015-05-07 time: 10:07:46.93 UTC ML= 1.2  
 lat: 48.456N lon: 19.534E h= 20.2 km  
 erh= 2.3km erz= 651km  
 nr= 8 gap=119 rms=0.46  
 Locality: Slovakia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
VYHS	51.7	275	ePg	10:07:57.00	0.33
			eSg	08:03.60	-0.67
PSZ	65.6	156	ePg	10:07:58.77	0.00
			eSg	08:08.01	0.00
KECS	70.5	88	ePg	10:07:59.60	0.08
			eSg	08:08.90	-0.44
LANS	77.4	356	ePg	10:08:01.40	0.83
			eSg	08:10.50	-0.71

179.

2015-05-07 time: 12:37:24.77 UTC ML= 0.9  
 lat: 47.119N lon: 17.931E h= 10.0 km  
 erh= 1.7km erz= 4.9km  
 nr= 10 gap=138 rms=0.39  
 Locality: Kádárta  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKST	17.4	27	ePgC	12:37:28.11	-0.25
			eSg	37:31.06	-0.10
TIH	24.5	187	ePg	12:37:29.39	-0.11
			eSg	37:33.21	0.03
MPLH	30.2	281	ePg	12:37:30.22	-0.24
			eSg	37:35.38	0.48
CSKK	36.9	43	ePg	12:37:31.44	-0.16

### Hypocenter Parameters

eSg 37:37.34 0.42  
 PKSG 46.2 49 ePg 12:37:34.12 0.91  
 eSg 37:39.20 -0.59

180.

2015-05-08 time: 8:57:28.86 UTC ML= 0.4  
 lat: 46.147N lon: 18.309E h= 0.0 km  
 erh= 1.2km erz= 245km  
 nr= 7 gap=186 rms=0.16  
 Locality: Vasas  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	17.5	248	ePgC	8:57:31.71	-0.26
			eSg	57:34.75	0.34
PKSM	26.6	74	ePgD	8:57:33.67	0.06
			eSg	57:37.37	0.05
MORH	27.0	74	ePg	8:57:33.70	0.03
PKSV	29.1	189	ePg	8:57:33.96	-0.09
			eSg	57:38.24	0.14

181.

2015-05-09 time: 8:51:23.04 UTC ML= 0.6  
 lat: 46.184N lon: 18.283E h= 10.0 km  
 erh= 1.4km erz= 3.2km  
 nr= 8 gap=210 rms=0.18  
 Locality: Zobákpuszta  
 Comments:

sta	dist	azm	phase	hr mn sec	res
KOVH	17.7	233	ePgC	8:51:26.56	-0.10
			eSg	51:29.66	0.17
PKSM	27.8	84	ePgD	8:51:28.49	0.17
			eSg	51:31.77	-0.67
MORH	28.1	83	ePgC	8:51:28.49	0.13
			eSg	51:32.40	-0.12
PKSV	32.9	184	ePg	8:51:29.04	-0.14
			eSg	51:34.00	0.03

182.

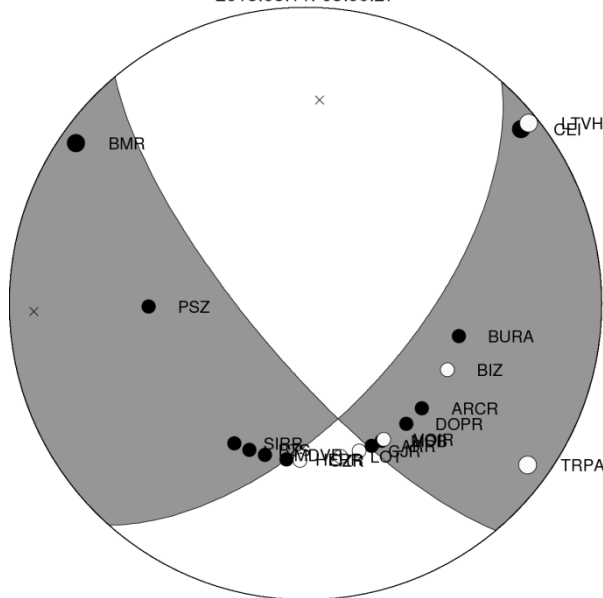
2015-05-11 time: 5:00:27.11 UTC ML= 3.2  
 lat: 47.942N lon: 22.928E h= 5.2 km  
 erh= 2.1km erz= 2.1km  
 nr= 27 gap=107 rms=0.78  
 Locality: Garbolc  
 Comments: felt 5 EMS

sta	dist	azm	phase	hr mn sec	res
TRPA	35.8	306	ePgD	5:00:33.43	-0.13
			eSg	00:39.65	1.05
CEI	45.3	231	PgC	5:00:35.57	0.33
			Sg	00:41.90	0.31
BMR	52.1	125	PgC	5:00:36.32	-0.13
			Sg	00:42.90	-0.84
LTVH	98.9	231	PgD	5:00:44.98	0.19
			Sg	00:58.30	-0.29
DRGR	128.9	187	Pn	5:00:48.40	-1.14
ARCR	143.5	132	PnC	5:00:51.41	0.04
			Sn	01:09.80	-0.49
CJR	145.6	160	PnD	5:00:52.37	0.74
CRVS	152.3	315	ePn	5:00:52.00	-0.46
			eSn	01:13.60	1.36
BURA	175.4	102	PnC	5:00:55.73	0.39
KWP	188.6	355	Pn	5:00:56.80	-0.19
KECS	191.2	288	ePn	5:00:56.10	-1.22
			eSn	01:21.60	0.72
SIRR	209.5	207	PnC	5:01:01.99	2.39
PSZ	226.7	269	ePnC	5:01:00.02	-1.72
			eSn	01:37.73	8.98*
MDB	228.5	151	PnC	5:01:02.87	0.90
AMBH	243.3	223	ePn	5:01:03.44	-0.37

### Földrengés paraméterek

sta	dist	azm	phase	hr mn sec	res
BIZ	264.3	115	eSn	01:39.35	6.91*
			PnD	5:01:07.00	0.58
BZS	277.2	201	PnC	5:01:09.42	1.39
GZR	283.5	182	PnD	5:01:10.19	1.37
LOT	284.6	167	PnD	5:01:10.20	1.24
DOPR	288.6	140	PnC	5:01:11.30	1.85
VYHS	310.2	281	ePn	5:01:11.30	-0.85*
ARR	314.5	155	PnC	5:01:13.42	0.73*
VOIR	322.3	150	PnD	5:01:15.64	1.99*
HERR	342.5	187	PnC	5:01:18.24	2.07*
PKSG	346.2	260	ePn	5:01:21.42	4.78*
MDVR	363.5	195	PnC	5:01:20.45	1.65*
PKST	375.7	258	ePn	5:01:26.29	5.97*
KRLC	508.4	298	ePn	5:01:36.20	-0.67*
CONA	528.0	270	Pn	5:01:37.26	-2.05*
DPC	551.4	299	ePn	5:01:41.40	-0.82*
ARSA	562.2	262	Pn	5:01:41.95	-1.62*
MOA	647.8	269	Pn	5:01:54.55	0.30*
KHC	703.0	281	ePn	5:02:00.20	-0.93*
KBA	728.3	262	Pn	5:02:03.62	-0.66*

2015.05.11. 05:00:27



183.

2015-05-11 time: 11:35:09.76 UTC ML= 1.1  
 lat: 47.201N lon: 18.292E h= 1.5 km  
 erh= 2.5km erz= 4.7km  
 nr= 15 gap=147 rms=0.77  
 Locality: Székesfehérvár  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	18.2	353	ePg	11:35:12.86	-0.16
			eSg	35:14.82	-0.74
PKST	20.6	288	ePgC	11:35:13.46	0.02
			eSg	35:16.08	-0.23
PKSG	22.5	19	ePgC	11:35:13.91	0.12
			eSg	35:17.00	0.07
MPLH	57.1	267	ePg	11:35:21.14	1.18
			eSg	35:30.16	2.24
EGYH	76.5	288	ePg	11:35:22.16	-1.26
			eSg	35:31.05	-3.02
MORH	112.8	166	ePg	11:35:30.66	0.76
			eSg	35:45.55	-0.05
PKSM	113.1	166	eSg	11:35:44.62	-1.10
VYHS	149.4	16	ePn	11:35:35.40	0.17
			eSn	35:54.80	-0.30



## Földrengés paraméterek

## Hypocenter Parameters

184.

2015-05-13 time: 6:52:00.91 UTC ML= 1.2  
 lat: 47.354N lon: 18.433E h= 0.0 km  
 erh= 2.2km erz= 281km  
 nr= 6 gap=288 rms=0.17  
 Locality: Gánt  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	5.3	323	ePgC	6:52:01.96			0.11
			eSg		52:02.47		-0.11
CSKK	13.1	274	ePgC	6:52:03.25			0.01
			eSg		52:04.76		-0.30
PKST	31.9	251	ePg	6:52:06.52			-0.09
			eSg		52:11.45		0.39

185.

2015-05-13 time: 6:52:16.61 UTC ML= 1.2  
 lat: 47.452N lon: 18.420E h= 0.0 km  
 erh= 3.0km erz= 331km  
 nr= 6 gap=325 rms=0.19  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	7.0	198	ePgC	6:52:18.07			0.20
			eSg		52:18.65		-0.20
CSKK	15.6	231	ePgD	6:52:19.36			-0.03
			eSg		52:21.40		-0.16
PKST	36.2	234	ePg	6:52:22.89			-0.18
			eSg		52:28.47		0.36

186.

2015-05-13 time: 23:33:58.41 UTC ML= 0.0  
 lat: 47.361N lon: 18.217E h= 5.1 km  
 erh= 4.4km erz= 1.0km  
 nr= 6 gap=205 rms=0.07  
 Locality: Mór  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	3.3	87	ePgD	23:33:59.51			0.02
			eSg		34:00.26		-0.07
PKSG	13.6	76	ePgD	23:34:01.03			0.03
			eSg		34:03.00		-0.01
PKST	17.9	230	ePgD	23:34:01.64			-0.09
			eSg		34:04.48		0.16

187.

2015-05-14 time: 6:43:08.06 UTC ML= 0.4  
 lat: 47.164N lon: 18.226E h= 0.0 km  
 erh= 5.0km erz= 641km  
 nr= 6 gap=280 rms=0.38  
 Locality: Ősi  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	17.9	306	ePgC	6:43:11.19			-0.07
			eSg		43:13.72		-0.04
CSKK	22.3	7	ePgD	6:43:11.89			-0.14
			eSg		43:15.36		0.23
PKSG	28.2	26	ePg	6:43:13.74			0.65
			eSg		43:16.20		-0.82

188.

2015-05-14 time: 6:46:33.06 UTC ML= 0.2  
 lat: 47.180N lon: 18.228E h= 0.0 km  
 erh= 1.0km erz= 112km  
 nr= 5 gap=273 rms=0.05

Locality: Csór  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	17.1	301	ePgC	6:46:36.10			-0.01
			eSg		46:38.51		0.02
CSKK	20.5	7	ePgD	6:46:36.80			0.07
			eSg		46:39.56		-0.03
PKSG	26.6	28	ePg	6:46:37.74			-0.07

189.

2015-05-14 time: 19:21:40.94 UTC ML= 0.1  
 lat: 47.361N lon: 18.125E h= 6.8 km  
 erh= 6.2km erz= 4.5km  
 nr= 6 gap=229 rms=0.10  
 Locality: Nagyveleg  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	10.2	89	ePgD	19:21:43.12			0.00
			eSg		21:44.73		-0.10
PKST	13.3	211	ePgD	19:21:43.68			0.07
			eSg		21:45.67		-0.02
PKSG	20.3	80	ePg	19:21:44.63			-0.13
			eSg		21:47.97		0.23

190.

2015-05-15 time: 11:12:16.04 UTC ML= 1.2  
 lat: 48.485N lon: 19.574E h= 0.2 km  
 erh= 2.2km erz= 505km  
 nr= 6 gap=179 rms=0.38  
 Locality: Slovakia  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
VYHS	54.6	271	ePg	11:12:26.00			0.21
			eSg		12:32.80		-0.59
PSZ	67.4	159	ePg	11:12:28.51			0.44
			eSg		12:36.95		-0.50
KECS	67.4	90	ePg	11:12:28.30			0.22
			eSg		12:37.20		-0.26

191.

2015-05-15 time: 23:46:35.28 UTC ML=-0.1  
 lat: 47.291N lon: 18.167E h= 8.6 km  
 erh= 4.8km erz= 2.3km  
 nr= 6 gap=195 rms=0.09  
 Locality: Balinka  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKST	10.6	251	ePgD	23:46:37.76			0.03
			eSg		46:39.63		-0.01
CSKK	10.7	41	ePgD	23:46:37.69			-0.05
			eSg		46:39.61		-0.05
PKSG	20.3	56	ePg	23:46:39.20			-0.02
			eSg		46:42.68		0.38

192.

2015-05-17 time: 23:17:45.36 UTC ML=-0.6  
 lat: 47.370N lon: 18.237E h= 7.3 km  
 erh= 9.3km erz= 1.8km  
 nr= 6 gap=207 rms=0.16  
 Locality: Mór  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	1.9	114	ePgC	23:17:46.70			-0.01
			eSg		17:47.82		0.06
PKSG	11.8	78	ePgC	23:17:47.98			0.14

## Hypocenter Parameters

## Földrengés paraméterek

eSg 17:49.56 -0.22  
 PKST 19.7 231 ePg 23:17:48.88 -0.23  
 eSg 17:52.27 0.23

193.

2015-05-17 time: 23:38:41.43 UTC ML=-0.2  
 lat: 47.309N lon: 18.290E h= 7.4 km  
 erh= 7.7km erz= 7.7km  
 nr= 6 gap=214 rms=0.15  
 Locality: Söréd  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	6.4	340	ePgC	23:38:43.13	-0.05
			eSg	38:44.45	-0.08
PKSG	11.9	40	ePgD	23:38:44.07	0.13
			eSg	38:45.83	-0.06
PKST	20.1	254	ePg	23:38:45.06	-0.20
			eSg	38:48.58	0.33

194.

2015-05-19 time: 5:46:41.80 UTC ML= 0.5  
 lat: 47.130N lon: 18.215E h= 0.0 km  
 erh= 2.3km erz= 296km  
 nr= 6 gap=292 rms=0.18  
 Locality: Ósi  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	19.8	316	ePg	5:46:45.47	0.13
			eSg	46:48.09	-0.01
CSKK	26.1	8	ePgC	5:46:46.23	-0.23
			eSg	46:49.90	-0.20
PKSG	32.0	25	ePg	5:46:47.73	0.22
			eSg	46:52.08	0.12

195.

2015-05-19 time: 10:03:14.82 UTC ML= 0.7  
 lat: 47.186N lon: 18.324E h= 0.0 km  
 erh= 3.6km erz= 553km  
 nr= 8 gap=256 rms=0.42  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	20.3	346	ePgD	10:03:18.24	-0.20
			eSg	03:20.94	-0.33
PKST	23.4	290	ePgD	10:03:18.66	-0.34
			eSg	03:21.73	-0.53
PKSG	23.4	12	ePg	10:03:19.02	0.01
			eSg	03:22.81	0.54
MPLH	59.5	268	ePg	10:03:25.91	0.46
			eSg	03:34.58	0.85

196.

2015-05-19 time: 10:04:30.16 UTC ML= 1.1  
 lat: 45.508N lon: 18.001E h= 10.0 km  
 erh= 8.0km erz=38.9km  
 nr= 7 gap=334 rms=0.79  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSV	46.6	25	ePg	10:04:40.31	1.63
KOVH	65.0	7	ePg	10:04:41.65	-0.26
			eSg	04:50.03	-1.04
PKSM	92.7	32	ePg	10:04:46.57	-0.25
			eSg	04:59.45	-0.36
MORH	93.2	32	ePg	10:04:46.48	-0.43
			eSg	05:00.74	0.77

197.

2015-05-20 time: 6:32:36.20 UTC ML= 0.5  
 lat: 47.444N lon: 18.432E h= 0.0 km  
 erh= 7.0km erz= 666km  
 nr= 5 gap=333 rms=0.30  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.6	208	ePgC	6:32:37.43	0.05
			eSg	32:38.17	-0.12
CSKK	15.8	235	ePg	6:32:38.85	-0.17
			eSg	32:40.93	-0.28
PKST	36.4	236	eSg	6:32:48.57	0.80

198.

2015-05-22 time: 8:42:14.54 UTC ML= 1.1  
 lat: 47.102N lon: 18.010E h= 10.0 km  
 erh= 2.3km erz= 2.3km  
 nr= 13 gap=112 rms=0.48  
 Locality: Litér  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKST	17.5	6	ePgD	8:42:17.46	-0.68
			eSg	42:20.39	-0.55
TIH	24.2	202	ePg	8:42:18.89	-0.32
			eSg	42:23.28	0.42
CSKK	34.6	33	ePg	8:42:21.36	0.39
			eSg	42:26.40	0.41
MPLH	36.5	282	ePg	8:42:21.66	0.37
			eSg	42:26.71	0.15
PKSG	43.2	42	eSg	8:42:28.89	0.26
MORH	109.9	154	ePn	8:42:33.97	-0.02
			eSn	42:48.18	-0.98
PKSM	110.2	154	ePn	8:42:34.69	0.66
			eSn	42:48.48	-0.75

199.

2015-05-24 time: 13:05:51.00 UTC ML= 0.6  
 lat: 47.138N lon: 18.219E h= 0.0 km  
 erh= 6.7km erz= 839km  
 nr= 6 gap=289 rms=0.51  
 Locality: Ósi  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	19.4	314	ePgC	13:05:54.66	0.20
			eSg	05:57.16	0.00
CSKK	25.2	7	ePg	13:05:55.07	-0.43
			eSg	05:57.67	-1.34
PKSG	31.0	25	ePgC	13:05:56.74	0.19
			eSg	06:01.62	0.75

200.

2015-05-24 time: 14:30:53.19 UTC ML= 1.2  
 lat: 47.531N lon: 18.118E h= 1.6 km  
 erh= 4.9km erz=77.0km  
 nr= 9 gap=229 rms=0.68  
 Locality: Ete  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	21.5	150	ePgC	14:30:57.06	0.02
			eSg	30:59.39	-0.66
PKSG	25.7	127	ePgD	14:30:57.80	0.01
			eSg	31:00.52	-0.86
PKST	30.9	192	ePg	14:30:58.43	-0.28
			eSg	31:02.36	-0.65

## Földrengés paraméterek

## Hypocenter Parameters

MPLH 59.3 227 ePg 14:31:05.03 1.25  
 eSg 31:13.57 1.53  
 EGYH 60.6 258 eSg 14:31:11.62 -0.83

201.

2015-05-26 time: 7:05:31.97 UTC ML= 1.1  
 lat: 47.435N lon: 18.390E h= 0.0 km  
 erh= 4.7km erz= 585km  
 nr= 6 gap=305 rms=0.34  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	4.8	179	ePgC	7:05:32.98	0.16
			eSg	05:33.45	-0.04
CSKK	12.6	231	ePg	7:05:34.33	0.11
			eSg	05:35.32	-0.66
PKST	33.2	234	ePgC	7:05:37.68	-0.22
			eSg	05:43.26	0.73

202.

2015-05-26 time: 9:09:30.77 UTC ML= 0.8  
 lat: 47.188N lon: 18.330E h= 0.0 km  
 erh= 6.3km erz= 797km  
 nr= 6 gap=257 rms=0.49  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	23.2	11	ePg	9:09:34.97	0.07
			eSg	09:38.26	0.13
PKST	23.7	290	ePg	9:09:34.55	-0.45
			eSg	09:37.59	-0.72
MPLH	59.9	268	ePg	9:09:41.67	0.20
			eSg	09:50.85	1.03

203.

2015-05-26 time: 10:20:34.16 UTC ML= 0.4  
 lat: 46.001N lon: 18.365E h= 0.0 km  
 erh= 4.8km erz= 433km  
 nr= 6 gap=253 rms=0.26  
 Locality: Lothárd  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	22.7	295	ePgC	10:20:38.23	0.01
			eSg	20:41.15	-0.23
PKSM	31.7	42	ePgC	10:20:39.98	0.15
			eSg	20:43.41	-0.84
MORH	32.2	42	ePgC	10:20:39.89	-0.02
			eSg	20:44.79	0.39

204.

2015-05-27 time: 7:53:01.57 UTC ML= 0.6  
 lat: 45.866N lon: 18.401E h= 0.0 km  
 erh= 0.7km erz=94.9km  
 nr= 8 gap=256 rms=0.07  
 Locality: Kisharsány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	11.8	282	ePg	7:53:03.58	-0.10
			eSg	53:05.36	0.04
KOVH	34.0	317	ePgC	7:53:07.73	0.09
			eSg	53:12.24	-0.13
PKSM	42.7	26	ePgC	7:53:09.21	0.01
			eSg	53:15.13	-0.02
MORH	43.2	26	ePgC	7:53:09.30	0.01
			eSg	53:15.24	-0.07
PKS9	80.7	353	ePg	7:53:13.28	-2.70*

205.

2015-05-27 time: 12:18:39.80 UTC ML= 1.1  
 lat: 47.057N lon: 18.021E h= 0.0 km  
 erh= 1.7km erz= 483km  
 nr= 9 gap=172 rms=0.37  
 Locality: Balatonfűzfő  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
TIH	20.0	209	ePg	12:18:42.85	-0.52
			eSg	18:46.53	0.38
PKST	22.5	3	ePg	12:18:43.36	-0.46
			eSg	18:46.98	0.03
CSKK	38.6	28	eSg	12:18:52.31	0.24
MPLH	38.6	289	ePg	12:18:46.72	0.02
			eSg	18:52.35	0.27
PKSG	46.6	37	ePg	12:18:48.02	-0.10
			eSg	18:55.38	0.77

206.

2015-05-28 time: 4:22:07.47 UTC ML= 2.4  
 lat: 48.797N lon: 21.984E h= 1.6 km  
 erh= 7.7km erz= 3.7km  
 nr= 14 gap=241 rms=0.97  
 Locality: Slovakia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
TRPA	84.8	151	ePgD	4:22:22.65	0.04
			eSg	22:33.86	-0.56
LTVH	157.2	182	ePn	4:22:36.38	2.48
			eSn	22:55.47	0.95
BMR	168.1	138	PnD	4:22:34.82	-0.45
			Sn	22:56.80	-0.15
PSZ	183.1	238	ePn	4:22:35.71	-1.42
			eSn	23:00.37	0.10
DRGR	229.6	166	PnD	4:22:43.28	0.35
			Sn	23:10.00	-0.59
CJR	261.4	152	PnC	4:22:47.27	0.37
			Sn	23:16.20	-1.46
BURA	273.9	119	PnC	4:22:48.56	0.10
SIRR	282.3	185	PnC	4:22:48.79	-0.72
MORC	341.0	289	PnC	4:22:54.70	-2.12*

207.

2015-05-28 time: 6:50:34.21 UTC ML= 0.6  
 lat: 47.443N lon: 18.466E h= 0.0 km  
 erh= 6.6km erz= 414km  
 nr= 6 gap=345 rms=0.26  
 Locality: Bodmér  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	8.0	225	ePgC	6:50:35.96	0.32
			eSg	50:36.56	-0.20
CSKK	17.8	240	ePgC	6:50:37.31	-0.09
			eSg	50:39.50	-0.38
PKST	38.5	238	ePg	6:50:40.93	-0.15
			eSg	50:46.81	0.37

208.

2015-05-28 time: 6:51:28.89 UTC ML= 0.6  
 lat: 47.444N lon: 18.379E h= 0.0 km  
 erh= 2.8km erz= 348km  
 nr= 6 gap=300 rms=0.20  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
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## Hypocenter Parameters

PKSG 5.8 171 ePgC 6:51:29.90 -0.02  
 eSg 51:30.79 0.06  
 CSKK 12.7 225 ePgC 6:51:31.20 0.06  
 eSg 51:32.40 -0.51  
 PKST 33.2 232 ePg 6:51:34.73 -0.08  
 eSg 51:39.82 0.39

209.

2015-05-28 time: 11:27:56.37 UTC ML= 0.3  
 lat: 47.185N lon: 18.261E h= 0.0 km  
 erh= 1.5km erz= 199km  
 nr= 6 gap=273 rms=0.12  
 Locality: Csór  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	19.0	296	ePg	11:27:59.88	0.11
			eSg	28:02.23	-0.19
CSKK	19.9	360	ePg	11:28:00.03	0.11
			eSg	28:02.62	-0.06
PKSG	25.0	23	ePgC	11:28:00.74	-0.11
			eSg	28:04.46	0.13

210.

2015-05-29 time: 11:45:14.98 UTC ML= 0.5  
 lat: 47.210N lon: 18.203E h= 0.0 km  
 erh= 2.0km erz= 240km  
 nr= 6 gap=258 rms=0.14  
 Locality: Csór  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	13.9	293	ePgC	11:45:17.35	-0.12
			eSg	45:19.79	0.38
CSKK	17.6	14	ePg	11:45:18.05	-0.07
			eSg	45:20.57	0.00
PKSG	24.7	35	ePg	11:45:19.52	0.13
			eSg	45:22.75	-0.08

211.

2015-05-30 time: 17:18:00.87 UTC ML= 1.9  
 lat: 47.685N lon: 16.177E h= 4.0 km  
 erh= 3.2km erz= 3.0km  
 nr= 26 gap=131 rms=1.27  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr mn sec	res
SOP	28.6	90	ePgC	17:18:07.20	1.17
			eSg	18:11.03	0.97
CONA	35.9	319	Pg	17:18:07.40	0.08
			Sg	18:11.67	-0.69
ARSA	69.0	226	Pg	17:18:13.57	0.37
			Sg	18:22.44	-0.39
EGYH	91.9	109	ePg	17:18:14.39	-2.90
			eSg	18:26.56	-3.54
MPLH	117.7	119	ePg	17:18:21.35	-0.54
			eSg	18:39.22	0.94
SOKA	141.6	218	Pn	17:18:25.06	0.01
BEHE	142.5	161	ePn	17:18:27.34	2.18
			eSn	18:45.12	1.02
MOA	144.4	277	Pn	17:18:24.99	-0.41
			Sn	18:42.31	-2.23
PKST	147.8	109	ePn	17:18:27.58	1.76
			eSn	18:44.03	-1.26
PKSG	169.8	101	eSn	17:18:50.61	0.43
KBA	224.2	253	Pn	17:18:35.38	0.03
			Sn	19:02.83	0.58
KOVH	230.2	140	ePn	17:18:35.81	-0.28
PKSM	249.0	131	ePnD	17:18:37.87	-0.57
			eSn	19:03.97	-3.78

## Földrengés paraméterek

KHC 250.8 310 ePn 17:18:39.30 0.64  
 eSn 19:10.20 2.06  
 PKSV 254.9 142 ePn 17:18:38.35 -0.83

212.

2015-05-31 time: 6:50:58.70 UTC ML= 0.4  
 lat: 47.351N lon: 18.140E h= 7.9 km  
 erh= 3.9km erz= 1.8km  
 nr= 6 gap=219 rms=0.06  
 Locality: Nagyveleg  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	9.2	82	ePg	6:51:00.92	0.05
			eSg	51:02.51	-0.05
PKST	13.0	218	ePgD	6:51:01.46	0.04
			eSg	51:03.50	-0.04
PKSG	19.4	77	ePg	6:51:02.36	-0.09
			eSg	51:05.46	0.08

213.

2015-06-02 time: 9:22:50.15 UTC ML= 0.9  
 lat: 47.556N lon: 18.481E h= 0.0 km  
 erh= 4.8km erz= 746km  
 nr= 8 gap=186 rms=0.55  
 Locality: Tatabánya  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	19.4	201	ePg	9:22:53.56	-0.06
SRO2	23.9	344	eSg	9:22:57.60	-0.16
CSKK	27.1	218	ePg	9:22:55.21	0.22
			eSg	22:59.21	0.44
PKST	47.2	226	ePg	9:22:57.86	-0.71
			eSg	23:05.23	0.09
VYHS	107.6	14	ePg	9:23:10.20	0.83
			eSg	23:23.00	-1.37

214.

2015-06-04 time: 6:26:06.54 UTC ML= 0.6  
 lat: 47.470N lon: 18.436E h= 0.0 km  
 erh= 6.9km erz= 701km  
 nr= 6 gap=329 rms=0.42  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	9.3	202	ePgC	6:26:08.40	0.20
			eSg	26:09.18	-0.31
CSKK	17.8	228	ePgD	6:26:09.72	0.01
			eSg	26:11.31	-0.87
PKST	38.3	232	ePg	6:26:13.32	-0.06
			eSg	26:19.61	0.89

215.

2015-06-04 time: 7:13:55.35 UTC ML= 1.5  
 lat: 46.036N lon: 19.118E h= 10.0 km  
 erh= 6.5km erz= 22.4km  
 nr= 9 gap=303 rms=0.62  
 Locality: Gara  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSM	41.7	298	ePgD	7:14:02.71	-0.30
			eSg	14:09.21	0.23
MORH	41.7	299	ePg	7:14:02.69	-0.32
			eSg	14:09.30	0.32
PKSV	69.1	256	ePg	7:14:08.81	0.99
			eSg	14:18.49	0.95
KOVH	79.0	274	ePg	7:14:08.94	-0.63

## Földrengés paraméterek

## Hypocenter Parameters

eSg 14:19.56 -1.10  
 PKS9 89.0 313 eSg 7:14:23.99 0.16

216.

2015-06-05 time: 7:35:02.32 UTC ML= 0.8  
 lat: 45.853N lon: 18.412E h= 0.0 km  
 erh= 0.6km erz=90.3km  
 nr= 8 gap=264 rms=0.07  
 Locality: Nagyharsány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	13.0	288	ePg	7:35:04.57	-0.08
			eSg	35:06.54	0.08
KOVH	35.6	317	ePg	7:35:08.76	0.08
			eSg	35:13.56	-0.09
PKSM	43.6	24	ePgC	7:35:10.19	0.08
			eSg	35:16.17	-0.02
MORH	44.1	24	ePgC	7:35:10.17	-0.03
			eSg	35:16.30	-0.05

217.

2015-06-05 time: 14:04:50.26 UTC ML= 2.1  
 lat: 46.652N lon: 22.489E h= 10.4 km  
 erh= 2.3km erz= 2.6km  
 nr= 6 gap=163 rms=0.30  
 Locality: Romania  
 Comments:

sta	dist	azm	phase	hr mn sec	res
DRGR	23.0	47	PgD	14:04:54.72	-0.06
			Sg	04:58.20	-0.10
SIRR	76.7	236	PgD	14:05:04.62	0.54
			Sg	05:14.40	-0.47
LTVH	93.0	331	Sg	14:05:20.00	0.00
BZS	133.3	210	Sn	14:05:29.90	-0.11

218.

2015-06-08 time: 6:18:40.94 UTC ML= 1.4  
 lat: 47.981N lon: 19.987E h= 0.0 km  
 erh= 3.3km erz= 741km  
 nr= 6 gap=191 rms=0.44  
 Locality: Mátramindszent  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PSZ	9.8	224	ePgC	6:18:42.27	-0.42
			eSg	18:44.12	0.06
PENC	56.8	248	eSg	6:19:00.15	1.14
KECS	67.0	34	eSg	6:19:02.50	0.26
VYHS	102.7	304	ePg	6:18:59.10	-0.19
			eSg	19:13.60	0.01

219.

2015-06-08 time: 6:56:28.71 UTC ML= 1.0  
 lat: 47.330N lon: 18.416E h= 0.0 km  
 erh= 2.3km erz= 585km  
 nr= 8 gap=187 rms=0.42  
 Locality: Zámoly  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	7.2	345	ePgC	6:56:29.79	-0.20
			eSg	56:30.59	-0.40
CSKK	12.3	288	ePgD	6:56:31.11	0.20
			eSg	56:32.37	-0.26
PKST	29.9	255	ePg	6:56:34.63	0.58
			eSg	56:37.91	-0.31
PKSM	125.5	172	ePg	6:56:51.71	0.60
			eSg	57:07.79	-0.80

220.

2015-06-08 time: 6:56:46.21 UTC ML= 1.0  
 lat: 47.449N lon: 18.412E h= 0.0 km  
 erh= 3.8km erz= 436km  
 nr= 6 gap=321 rms=0.25  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.5	194	ePgD	6:56:47.56	0.19
			eSg	56:48.13	-0.15
CSKK	14.9	230	ePgD	6:56:48.87	0.01
			eSg	56:50.60	-0.33
PKST	35.5	234	ePg	6:56:52.31	-0.23
			eSg	56:58.06	0.58

221.

2015-06-10 time: 7:03:18.80 UTC ML= 0.5  
 lat: 47.158N lon: 18.231E h= 0.0 km  
 erh= 1.4km erz= 180km  
 nr= 6 gap=282 rms=0.11  
 Locality: Ősi  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	18.7	307	ePgC	7:03:22.16	0.03
			eSg	03:24.56	-0.18
CSKK	22.9	6	ePgC	7:03:22.86	-0.03
			eSg	03:26.27	0.19
PKSG	28.7	25	ePgC	7:03:24.00	0.08
			eSg	03:27.73	-0.18

222.

2015-06-12 time: 5:58:05.52 UTC ML= 0.5  
 lat: 47.287N lon: 18.355E h= 0.0 km  
 erh= 1.7km erz= 259km  
 nr= 6 gap=249 rms=0.15  
 Locality: Magyaralmás  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	11.0	320	ePg	5:58:07.44	-0.05
			eSg	58:08.84	-0.19
PKSG	11.9	13	ePg	5:58:07.76	0.11
			eSg	58:09.39	0.07
PKST	24.4	263	ePgD	5:58:09.77	-0.12
			eSg	58:13.65	0.36

223.

2015-06-13 time: 17:46:35.51 UTC ML= 2.0  
 lat: 48.089N lon: 21.664E h= 10.0 km  
 erh= 3.0km erz= 2.9km  
 nr= 12 gap=142 rms=0.57  
 Locality: Buj  
 Comments:

sta	dist	azm	phase	hr mn sec	res
LTVH	80.3	167	ePg	17:46:50.00	0.04
			eSg	47:00.79	-0.44
CRVS	91.6	351	ePg	17:46:52.30	0.33
			eSg	47:03.90	-0.91
KOLS	104.1	26	eP*	17:46:54.00	-0.15
			eS*	47:07.20	-1.49
PSZ	133.4	262	ePnD	17:46:57.79	-0.11
			eSn	47:15.10	-0.26
STHS	150.8	348	ePn	17:47:01.20	1.13
			eSn	47:21.50	2.27
PENC	181.1	259	ePn	17:47:03.93	0.09
			eSn	47:24.96	-0.98

## Hypocenter Parameters

## Földrengés paraméterek

224.

2015-06-14 time: 5:13:03.59 UTC ML= 0.6  
 lat: 47.116N lon: 17.683E h= 0.0 km  
 erh= 1.0km erz= 306km  
 nr= 8 gap=153 rms=0.22  
 Locality: Városlőd  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
MPLH	12.5	299	ePgC	5:13:05.56			-0.26
			eSg	13:08.08			0.52
TIH	28.8	146	ePgC	5:13:08.69			-0.04
			eSg	13:13.03			0.30
PKST	31.0	59	ePg	5:13:09.02			-0.11
			eSg	13:13.69			0.24
CSKK	51.7	58	ePg	5:13:12.67			-0.14
			eSg	13:20.07			0.06

225.

2015-06-15 time: 9:24:30.47 UTC ML= 1.5  
 lat: 47.884N lon: 19.212E h= 0.0 km  
 erh= 8.8km erz= \*\*\*km  
 nr= 6 gap=184 rms=1.16  
 Locality: Felsőpetény  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PENC	11.7	153	ePg	9:24:31.39			-1.16
			eSg	24:35.70			1.52
PSZ	51.2	86	ePg	9:24:38.88			-0.73
			eSg	24:47.02			0.28
VYHS	73.3	338	ePg	9:24:45.10			1.54
			eSg	24:52.60			-1.17

226.

2015-06-15 time: 9:39:42.34 UTC ML= 2.1  
 lat: 48.432N lon: 17.240E h= 5.7 km  
 erh= 3.8km erz= 1.9km  
 nr= 21 gap=175 rms=1.04  
 Locality: Slovakia  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
MODS	7.0	157	ePg	9:39:43.20			-0.75
			eSg	39:44.80			-0.41
SMOL	16.6	57	ePg	9:39:45.80			0.32
			eSg	39:49.30			1.37
ZST	28.1	201	ePg	9:39:47.40			-0.07
			eSg	39:51.30			-0.16
SOP	97.5	211	ePg	9:39:59.39			-0.40
			eSg	40:14.94			1.55
EGYH	113.0	177	ePg	9:39:59.70			-2.85
			eSg	40:14.37			-3.94
CONA	116.8	241	Pn	9:40:02.94			-0.28
			Sn	40:17.14			-2.36
VYHS	118.2	87	ePn	9:40:02.80			-0.59
			eSn	40:19.80			-0.01
CSKK	141.2	147	eSn	9:40:25.25			0.34
MPLH	142.1	171	ePn	9:40:06.46			0.10
			eSn	40:26.85			1.75
PKST	143.3	156	ePn	9:40:06.38			-0.14
			eSn	40:24.40			-0.98
ARSA	183.8	224	Pn	9:40:13.44			1.87
			Sn	40:37.12			2.76

227.

2015-06-16 time: 11:22:42.81 UTC ML= 1.2  
 lat: 47.143N lon: 17.959E h= 13.6 km  
 erh= 2.4km erz= 1.9km  
 nr= 17 gap=103 rms=0.75  
 Locality: Gyulafirátót  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKST	14.1	24	ePg	11:22:45.52			-0.79
			eSg	22:48.87			-0.16
TIH	27.5	191	ePg	11:22:47.28			-1.01
			eSg	22:52.23			-0.34
MPLH	32.0	275	ePgD	11:22:49.16			0.14
			eSg	22:54.43			0.58
CSKK	33.4	43	ePg	11:22:49.19			-0.07
			eSg	22:54.35			0.06
PKSG	42.8	50	ePgD	11:22:50.70			-0.13
			eSg	22:58.07			0.99
PKS9	66.5	158	ePgD	11:22:56.34			1.41
MORH	115.7	153	ePnD	11:23:02.09			-0.44
			eSn	23:16.75			-1.15
PKSM	116.0	153	ePn	11:23:02.59			0.03
			eSn	23:17.18			-0.79
MODS	146.0	340	eSn	11:23:26.00			1.35
VYHS	163.9	24	ePn	11:23:12.30			3.76

228.

2015-06-16 time: 23:16:39.78 UTC ML= 0.9  
 lat: 47.416N lon: 18.219E h= 7.7 km  
 erh= 1.6km erz= 1.1km  
 nr= 15 gap=111 rms=0.37  
 Locality: Pusztavám  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	6.6	152	ePgC	23:16:41.68			0.09
			eSg	16:43.08			0.08
PKSG	13.2	102	ePgC	23:16:42.46			-0.04
			eSg	16:44.30			-0.33
PKST	22.4	219	ePgD	23:16:43.83			-0.17
			eSg	16:47.26			-0.03
MPLH	58.2	242	ePg	23:16:50.78			0.51
			eSg	17:00.70			2.25*
EGYH	67.0	270	ePg	23:16:51.30			-0.52
			eSg	17:00.98			-0.23
VYHS	128.4	21	ePn	23:17:02.30			0.45
			eSn	17:17.20			-1.86
MORH	137.3	166	ePn	23:17:02.90			-0.05
			eSn	17:18.98			-2.05
PKSM	137.7	166	ePnD	23:17:03.20			0.20

229.

2015-06-16 time: 23:28:03.63 UTC ML=-0.1  
 lat: 47.335N lon: 18.279E h= 10.0 km  
 erh= 3.1km erz= 1.4km  
 nr= 6 gap=192 rms=0.09  
 Locality: Csákberény  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	3.4	336	ePgC	23:28:05.48			-0.03
			eSg	28:06.83			-0.15
PKSG	10.5	53	ePgC	23:28:06.25			0.03
			eSg	28:08.34			0.10
PKST	20.3	245	ePgD	23:28:07.62			-0.06
			eSg	28:11.01			0.18

## Földrengés paraméterek

## Hypocenter Parameters

230.

2015-06-17 time: 0:05:32.47 UTC ML=-0.6  
 lat: 47.340N lon: 18.271E h= 10.0 km  
 erh= 3.6km erz= 1.5km  
 nr= 6 gap=186 rms=0.10  
 Locality: Csákberény  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	2.7	342	ePgC	0:05:34.26			-0.06
			eSg	05:35.64			-0.13
PKSG	10.7	57	ePg	0:05:35.17			0.08
			eSg	05:37.17			0.04
PKST	20.1	243	ePg	0:05:36.41			-0.06
			eSg	05:39.82			0.23

231.

2015-06-17 time: 2:15:13.38 UTC ML= 0.0  
 lat: 47.344N lon: 18.274E h= 9.5 km  
 erh= 4.2km erz= 1.6km  
 nr= 6 gap=184 rms=0.09  
 Locality: Csákberény  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	2.4	334	ePgC	2:15:15.16			0.03
			eSg	15:16.38			-0.12
PKSG	10.3	59	ePg	2:15:15.93			0.05
			eSg	15:17.90			0.07
PKST	20.5	243	ePgD	2:15:17.30			-0.11
			eSg	15:20.68			0.13

232.

2015-06-17 time: 2:31:57.29 UTC ML=-0.2  
 lat: 47.361N lon: 18.256E h= 9.4 km  
 erh= 3.4km erz= 0.8km  
 nr= 5 gap=185 rms=0.06  
 Locality: Csókakő  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	0.4	60	ePgC	2:31:58.98			0.02
			eSg	32:00.20			-0.07
PKSG	10.7	72	ePgD	2:31:59.78			-0.05
			eSg	32:01.90			0.08
PKST	20.3	236	eSg	2:32:04.44			0.06

233.

2015-06-18 time: 9:05:01.32 UTC ML= 0.7  
 lat: 45.964N lon: 18.644E h= 0.0 km  
 erh= 0.6km erz=57.3km  
 nr= 6 gap=255 rms=0.04  
 Locality: Mohács  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSM	27.6	360	ePgD	9:05:06.28			0.04
			eSg	05:10.11			0.02
MORH	28.0	0	ePgD	9:05:06.29			-0.03
			eSg	05:10.19			-0.04
PKSV	31.5	255	ePg	9:05:06.92			-0.03
			eSg	05:11.39			0.05

234.

2015-06-18 time: 10:45:25.25 UTC ML= 0.2  
 lat: 47.207N lon: 18.288E h= 0.0 km  
 erh= 3.3km erz= 437km  
 nr= 6 gap=266 rms=0.26  
 Locality: Iszkaszentgyörgy

Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	17.5	353	ePg	10:45:28.26			-0.12
			eSg	45:30.43			-0.39
PKST	20.0	287	ePg	10:45:28.76			-0.07
			eSg	45:32.01			0.39
PKSG	22.0	21	ePg	10:45:29.12			-0.06
			eSg	45:32.67			0.42

235.

2015-06-18 time: 20:46:26.77 UTC ML= 0.4  
 lat: 47.334N lon: 18.278E h= 9.6 km  
 erh= 2.4km erz= 1.1km  
 nr= 6 gap=193 rms=0.07  
 Locality: Söréd  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	3.5	338	ePgC	20:46:28.58			-0.01
			eSg	46:29.92			-0.10
PKSG	10.7	53	ePgC	20:46:29.35			0.02
			eSg	46:31.45			0.12
PKST	20.2	246	ePgD	20:46:30.70			-0.06
			eSg	46:33.98			0.10

236.

2015-06-18 time: 23:28:25.36 UTC ML= 0.2  
 lat: 47.333N lon: 18.282E h= 10.0 km  
 erh= 3.5km erz= 1.7km  
 nr= 6 gap=195 rms=0.10  
 Locality: Söréd  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	3.7	334	ePgC	23:28:27.23			-0.04
			eSg	28:28.59			-0.16
PKSG	10.5	52	ePg	23:28:28.02			0.07
			eSg	28:30.07			0.10
PKST	20.4	246	ePgD	23:28:29.36			-0.07
			eSg	28:32.78			0.18

237.

2015-06-20 time: 21:51:00.64 UTC ML= 0.4  
 lat: 47.305N lon: 18.161E h= 8.4 km  
 erh= 3.0km erz= 1.0km  
 nr= 6 gap=181 rms=0.06  
 Locality: Balinka  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	9.9	49	ePg	21:51:02.94			-0.02
			eSg	51:04.70			-0.06
PKST	10.9	242	ePg	21:51:03.13			0.05
			eSg	51:04.98			-0.01
PKSG	19.9	61	ePgC	21:51:04.44			-0.05
			eSg	51:07.61			0.12

238.

2015-06-22 time: 21:18:07.56 UTC ML= 0.4  
 lat: 47.318N lon: 18.469E h= 0.1 km  
 erh= 3.6km erz= 660km  
 nr= 6 gap=294 rms=0.23  
 Locality: Pátka  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSG	10.1	324	ePgC	21:18:09.50			0.14
			eSg	18:10.93			0.16
CSKK	16.5	288	ePg	21:18:10.16			-0.35

## Hypocenter Parameters

PKST 33.5 259 eSg 18:12.49 -0.32  
 ePg 21:18:13.58 0.04  
 eSg 18:18.50 0.29

239.

2015-06-22 time: 21:18:25.01 UTC ML= 0.3  
 lat: 47.317N lon: 18.468E h= 0.0 km  
 erh= 3.3km erz= 440km  
 nr= 6 gap=294 rms=0.25  
 Locality: Pátka  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	10.2	325	ePgC	21:18:27.01	0.17
			eSg	18:28.44	0.17
CSKK	16.5	288	ePgD	21:18:27.61	-0.36
			eSg	18:29.98	-0.29
PKST	33.4	259	ePg	21:18:31.09	0.10
			eSg	18:35.95	0.30

240.

2015-06-23 time: 6:31:40.03 UTC ML= 1.0  
 lat: 47.466N lon: 18.439E h= 0.0 km  
 erh= 5.7km erz= 574km  
 nr= 6 gap=331 rms=0.35  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	9.0	204	ePgC	6:31:42.00	0.36
			eSg	31:42.57	-0.33
CSKK	17.7	230	ePg	6:31:43.26	0.07
			eSg	31:44.95	-0.70
PKST	38.3	233	ePgC	6:31:46.69	-0.18
			eSg	31:52.66	0.47

241.

2015-06-23 time: 9:10:30.69 UTC ML= 0.8  
 lat: 45.789N lon: 18.481E h= 0.0 km  
 erh= 2.7km erz= 325km  
 nr= 6 gap=287 rms=0.21  
 Locality: Croatia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	20.9	302	ePgC	9:10:34.49	0.07
			eSg	10:37.14	-0.19
PKSM	48.6	15	ePg	9:10:39.80	0.44
			eSg	10:46.11	-0.02
MORH	49.1	15	ePgC	9:10:39.28	-0.17
			eSg	10:46.16	-0.13

242.

2015-06-23 time: 10:33:23.20 UTC ML= 0.0  
 lat: 47.226N lon: 18.288E h= 0.0 km  
 erh= 1.7km erz= 237km  
 nr= 6 gap=258 rms=0.14  
 Locality: Iszkaszentgyörgy  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	15.4	352	ePg	10:33:26.14	0.19
			eSg	33:27.99	-0.11
PKST	19.6	281	ePg	10:33:26.51	-0.19
			eSg	33:29.55	0.12
PKSG	20.0	23	ePg	10:33:26.82	0.05
			eSg	33:29.47	-0.09

## Földrengés paraméterek

243.

2015-06-23 time: 10:34:16.31 UTC ML= 0.2  
 lat: 47.202N lon: 18.283E h= 0.0 km  
 erh= 1.5km erz= 190km  
 nr= 5 gap=268 rms=0.09  
 Locality: Csór  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	18.0	355	ePg	10:34:19.52	-0.01
			eSg	34:21.96	-0.08
PKST	19.9	289	ePg	10:34:19.76	-0.10
			eSg	34:22.74	0.12
PKSG	22.7	21	ePg	10:34:20.45	0.09

244.

2015-06-24 time: 6:03:50.16 UTC ML= 0.5  
 lat: 47.130N lon: 18.226E h= 0.0 km  
 erh= 1.9km erz= 255km  
 nr= 6 gap=291 rms=0.15  
 Locality: Nádasdladány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	20.4	315	ePg	6:03:54.01	0.20
			eSg	03:56.53	-0.12
CSKK	26.1	6	ePg	6:03:54.65	-0.17
			eSg	03:58.29	-0.16
PKSG	31.7	23	ePg	6:03:55.84	0.02
			eSg	04:00.43	0.20

245.

2015-06-24 time: 10:55:56.31 UTC ML= 1.5  
 lat: 47.019N lon: 17.778E h= 0.0 km  
 erh= 2.2km erz= 736km  
 nr= 12 gap=166 rms=0.60  
 Locality: Tótvázsöny  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
TIH	15.9	146	ePgC	10:55:59.66	0.52
			eSg	56:03.13	1.78
MPLH	24.7	313	ePg	10:56:00.58	-0.14
			eSg	56:04.13	-0.03
PKST	33.0	36	ePg	10:56:01.61	-0.59
			eSg	56:06.67	-0.13
CSKK	52.9	44	ePg	10:56:05.76	0.00
			eSg	56:13.53	0.40
MORH	111.2	143	ePg	10:56:16.52	0.35
			eSg	56:30.73	-0.94
PKSM	111.5	144	ePg	10:56:16.38	0.17
			eSg	56:30.30	-1.44

246.

2015-06-25 time: 5:52:33.51 UTC ML= 0.3  
 lat: 47.159N lon: 18.218E h= 0.0 km  
 erh= 5.8km erz= 741km  
 nr= 6 gap=282 rms=0.45  
 Locality: Ősi  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	17.8	309	ePg	5:52:36.59	-0.10
			eSg	52:39.44	0.27
CSKK	22.9	8	ePgD	5:52:37.26	-0.34
			eSg	52:40.59	-0.21
PKSG	29.0	27	ePg	5:52:39.62	0.94
			eSg	52:42.34	-0.38



## Földrengés paraméterek

## Hypocenter Parameters

247.

2015-06-25 time: 6:09:50.17 UTC ML= 0.8  
 lat: 47.450N lon: 18.396E h= 0.0 km  
 erh= 3.3km erz= 352km  
 nr= 5 gap=312 rms=0.16  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.5	184	ePgC	6:09:51.45	0.12
			eSg	09:51.98	-0.25
CSKK	14.1	227	ePgC	6:09:52.79	0.10
			eSg	09:54.75	0.10
PKST	34.6	232	ePg	6:09:56.13	-0.22

248.

2015-06-25 time: 7:28:52.07 UTC ML= 1.2  
 lat: 47.442N lon: 18.396E h= 0.1 km  
 erh= 6.7km erz= 675km  
 nr= 5 gap=311 rms=0.10  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	5.6	184	ePgC	7:28:53.15	0.08
			eSg	28:53.72	-0.12
CSKK	13.4	229	ePgD	7:28:54.40	-0.07
			eSg	28:56.52	0.18
PKST	34.0	233	eSg	7:29:02.82	-0.07

249.

2015-06-25 time: 10:04:55.80 UTC ML= 0.4  
 lat: 47.164N lon: 18.312E h= 0.0 km  
 erh= 1.6km erz= 218km  
 nr= 6 gap=284 rms=0.13  
 Locality: Sárkeszi  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	22.5	350	ePg	10:04:59.84	0.02
			eSg	05:02.74	-0.22
PKST	23.5	297	ePg	10:04:59.87	-0.14
			eSg	05:03.47	0.18
PKSG	26.0	13	ePg	10:05:00.55	0.10
			eSg	05:04.13	0.05

250.

2015-06-25 time: 21:16:31.70 UTC ML= 0.4  
 lat: 47.250N lon: 18.231E h= 5.0 km  
 erh= 0.6km erz= 1.3km  
 nr= 6 gap=237 rms=0.04  
 Locality: Kincsesbánya  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	12.8	10	ePg	21:16:34.20	0.05
			eSg	16:36.08	0.02
PKST	14.9	274	ePg	21:16:34.53	0.02
			eSg	16:36.65	-0.06
PKSG	19.8	37	ePg	21:16:35.34	-0.01
			eSg	16:38.16	-0.04

251.

2015-06-25 time: 21:17:32.91 UTC ML= 0.2  
 lat: 47.271N lon: 18.211E h= 10.0 km  
 erh= 5.7km erz= 4.3km  
 nr= 6 gap=219 rms=0.10  
 Locality: Kincsesbánya  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	10.9	20	ePg	21:17:35.59	0.03
			eSg	17:37.52	-0.10
PKST	13.4	264	ePg	21:17:36.00	0.10
			eSg	17:38.13	-0.11
PKSG	19.1	45	ePg	21:17:36.67	-0.09
			eSg	17:39.92	0.15

252.

2015-07-03 time: 8:25:22.22 UTC ML= 1.9  
 lat: 45.503N lon: 17.973E h= 0.0 km  
 erh= 5.5km erz= 675km  
 nr= 10 gap=335 rms=0.53  
 Locality: Croatia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	48.0	27	ePg	8:25:32.68	1.89
			eSg	25:37.31	-0.17
KOVH	65.8	9	ePgC	8:25:34.22	0.26
			eSg	25:42.11	-1.01
PKSM	94.3	33	ePg	8:25:38.74	-0.32
			eSg	25:52.28	0.08
MORH	94.8	33	ePg	8:25:38.55	-0.60
			eSg	25:52.95	0.59
PKS9	122.8	11	ePg	8:25:44.42	0.28
			eSg	26:01.96	0.72

253.

2015-07-06 time: 6:31:42.44 UTC ML= 0.9  
 lat: 47.450N lon: 18.393E h= 0.0 km  
 erh= 2.1km erz= 252km  
 nr= 6 gap=310 rms=0.15  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.4	182	ePgC	6:31:43.65	0.06
			eSg	31:44.37	-0.11
CSKK	13.9	226	ePgD	6:31:44.96	0.04
			eSg	31:46.75	-0.10
PKST	34.4	232	ePg	6:31:48.41	-0.17
			eSg	31:53.77	0.39

254.

2015-07-06 time: 8:11:43.10 UTC ML= 1.4  
 lat: 48.078N lon: 20.663E h= 0.0 km  
 erh= 4.7km erz= 748km  
 nr= 5 gap=220 rms=0.34  
 Locality: Bükkszentlászló  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	46.9	344	ePg	8:11:51.70	0.23
			eSg	11:57.90	-0.10
PSZ	60.1	253	ePg	8:11:54.25	0.43
			eSg	12:01.65	-0.54
CRVS	109.0	33	ePg	8:12:02.30	-0.25

255.

2015-07-06 time: 9:05:38.92 UTC ML= 1.6  
 lat: 48.603N lon: 20.727E h= 0.0 km  
 erh= 2.5km erz= 4.5km  
 nr= 11 gap=147 rms=0.65  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	22.3	233	ePg	9:05:43.20	0.31

## Hypocenter Parameters

		eSg	05:47.10	1.11	
CRVS	63.4	58	ePg	9:05:50.20	-0.04
		eSg	05:58.30	-0.78	
PSZ	98.1	219	ePg	9:05:55.60	-0.83
		eSg	06:10.26	0.17	
LANS	110.7	303	ePg	9:05:58.90	0.22
		eSg	06:13.80	-0.30	
KOLS	119.4	72	eSg	9:06:17.10	0.22
VYHS	140.2	265	ePn	9:06:04.20	0.77
		eSn	06:20.70	-1.85	

256.

2015-07-06 time: 16:01:10.81 UTC ML= 1.1  
 lat: 47.118N lon: 17.952E h= 16.0 km  
 erh= 4.4km erz= 3.2km  
 nr= 16 gap=105 rms=0.97  
 Locality: Kádárta  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKST	16.8	22	ePg	16:01:13.98	-0.98
			eSg	01:17.62	-0.57
TIH	24.7	190	ePg	16:01:16.02	-0.04
			eSg	01:20.70	0.54
MPLH	31.8	280	ePg	16:01:18.01	0.84
			eSg	01:20.41	-1.72
CSKK	35.9	41	ePg	16:01:17.66	-0.16
			eSg	01:23.48	0.19
PKSG	45.0	48	ePg	16:01:20.31	0.97
			eSg	01:26.72	0.72
MORH	113.5	152	ePn	16:01:30.43	0.48
			eSn	01:43.45	-1.43
PKSM	113.8	152	ePn	16:01:28.22	-1.77
			eSn	01:43.43	-1.52
KOVH	115.1	174	ePn	16:01:31.37	1.22
			eSn	01:46.30	1.06

257.

2015-07-07 time: 6:17:43.37 UTC ML= 1.2  
 lat: 47.468N lon: 18.443E h= 0.0 km  
 erh= 8.9km erz= 853km  
 nr= 5 gap=332 rms=0.38  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	9.4	205	ePg	6:17:45.18	0.13
			eSg	17:46.35	-0.01
CSKK	18.1	230	ePg	6:17:46.50	-0.10
			eSg	17:48.41	-0.71
PKST	38.7	233	eSg	6:17:56.31	0.64

258.

2015-07-08 time: 5:40:31.97 UTC ML= 0.4  
 lat: 47.284N lon: 18.360E h= 0.0 km  
 erh= 3.1km erz= 472km  
 nr= 6 gap=253 rms=0.31  
 Locality: Magyaralmás  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	11.6	320	ePg	5:40:33.89	-0.15
			eSg	40:35.13	-0.53
PKSG	12.3	11	ePg	5:40:34.35	0.19
			eSg	40:35.97	0.10
PKST	24.8	264	ePg	5:40:36.27	-0.13
			eSg	40:40.46	0.61

## Földrengés paraméterek

259.

2015-07-08 time: 6:41:05.87 UTC ML= 0.6  
 lat: 47.285N lon: 18.340E h= 0.0 km  
 erh= 1.2km erz= 194km  
 nr= 6 gap=245 rms=0.11  
 Locality: Magyaralmás  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	10.6	325	ePg	6:41:07.75	-0.01
			eSg	41:09.29	0.06
PKSG	12.5	18	ePg	6:41:08.12	0.02
			eSg	41:09.73	-0.11
PKST	23.3	263	ePg	6:41:10.19	0.15
			eSg	41:13.05	-0.24

260.

2015-07-08 time: 7:44:56.18 UTC ML= 1.3  
 lat: 45.857N lon: 18.416E h= 0.0 km  
 erh= 2.8km erz= 427km  
 nr= 9 gap=262 rms=0.33  
 Locality: Nagyharsány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	13.2	285	ePg	7:44:58.36	-0.18
			eSg	45:00.43	0.06
KOVH	35.5	316	ePgC	7:45:02.66	0.13
			eSg	45:07.09	-0.38
PKSM	43.2	24	ePgC	7:45:03.92	0.03
			eSg	45:09.53	-0.37
MORH	43.6	24	ePgC	7:45:03.96	-0.02
			eSg	45:09.92	-0.14
PKS9	81.8	353	ePg	7:45:12.00	1.20

261.

2015-07-08 time: 8:54:33.68 UTC ML= 0.6  
 lat: 47.184N lon: 18.313E h= 0.0 km  
 erh= 2.1km erz= 241km  
 nr= 5 gap=277 rms=0.11  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	20.3	349	ePg	8:54:37.28	-0.04
			eSg	54:39.98	-0.17
PKST	22.7	292	ePg	8:54:37.70	-0.04
			eSg	54:41.02	0.12
PKSG	23.9	14	eSg	8:54:41.43	0.16

262.

2015-07-13 time: 8:22:42.85 UTC ML= 1.2  
 lat: 47.891N lon: 19.395E h= 0.0 km  
 erh= 2.8km erz= 822km  
 nr= 6 gap=132 rms=0.47  
 Locality: Bercel  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	14.0	217	ePg	8:22:45.23	-0.12
			eSg	22:47.34	0.03
PSZ	37.5	85	ePgD	8:22:49.32	-0.23
			eSg	22:54.96	0.19
VYHS	78.9	328	ePg	8:22:57.80	0.87
			eSg	23:07.10	-0.81

263.

2015-07-13 time: 9:07:57.47 UTC ML= 0.9  
 lat: 47.237N lon: 18.578E h= 0.0 km

## Földrengés paraméterek

## Hypocenter Parameters

erh= 7.6km erz= 823km  
 nr= 5 gap=313 rms=0.37  
 Locality: Sukoró  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	22.2	321	ePg	9:08:01.44	0.00
			eSg	08:04.04	-0.50
CSKK	27.8	300	ePg	9:08:02.56	0.13
			eSg	08:07.00	0.71
PKST	41.2	273	eSg	9:08:10.24	-0.33

264.

2015-07-14 time: 6:42:00.83 UTC ML= 0.3  
 lat: 47.232N lon: 18.207E h= 0.0 km  
 erh= 4.3km erz= 934km  
 nr= 8 gap=175 rms=0.67  
 Locality: Bakonykúti  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	13.4	283	ePg	6:42:02.33	-0.89
			eSg	42:04.84	-0.24
CSKK	15.1	16	ePg	6:42:03.02	-0.50
			eSg	42:06.42	0.79
PKSG	22.5	38	ePg	6:42:04.21	-0.64
			eSg	42:08.81	0.82
TIH	44.0	213	ePg	6:42:08.98	0.29
MPLH	51.0	262	ePg	6:42:10.78	0.84

265.

2015-07-15 time: 3:58:55.68 UTC ML= 2.2  
 lat: 48.128N lon: 22.409E h= 2.3 km  
 erh= 2.6km erz= 2.7km  
 nr= 26 gap= 95 rms=1.13  
 Locality: Jánd  
 Comments:

sta	dist	azm	phase	hr mn sec	res
TRPA	9.7	88	ePgD	3:58:58.29	0.83
			eSg	59:00.01	1.16
KOLS	90.1	354	ePg	3:59:11.90	0.13
			eSg	59:24.40	0.08
LTVH	91.0	205	ePg	3:59:11.56	-0.37
			eSg	59:23.23	-1.38
BMR	95.8	122	PgD	3:59:12.48	-0.31
			Sg	59:23.90	-2.24
CRVS	111.0	321	ePg	3:59:15.30	-0.19
			eSg	59:28.90	-2.05
KECS	148.0	285	ePn	3:59:19.80	-1.07
			eSn	59:37.40	-3.13
STHS	167.0	329	eSn	3:59:44.20	-0.53
CJR	181.1	150	PnD	3:59:25.74	0.74
			Sn	59:48.50	0.63
PSZ	189.0	263	ePn	3:59:26.42	0.44
			eSn	59:50.18	0.56
SIRR	214.5	195	Sn	3:59:55.50	0.22
BURA	217.7	105	PnC	3:59:31.27	1.71
			Sn	59:56.00	0.01
PENC	236.6	261	ePn	3:59:34.86	2.95
			eSn	4:00:04.24	4.06
LANS	244.8	298	ePn	3:59:36.60	3.66
			eSn	4:00:05.80	3.80
VYHS	268.1	279	ePn	3:59:35.50	-0.35
			eSn	4:00:11.20	4.02*
LOT	315.5	161	PnC	3:59:43.27	1.51*

266.

2015-07-16 time: 7:10:43.26 UTC ML= 0.7  
 lat: 47.425N lon: 18.397E h= 0.0 km  
 erh= 5.8km erz= 610km  
 nr= 5 gap=311 rms=0.29  
 Locality: Gánt  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	3.7	187	ePgC	7:10:43.92	0.00
			eSg	10:44.24	-0.19
CSKK	12.4	236	ePgC	7:10:45.18	-0.28
			eSg	10:47.03	-0.16
PKST	33.0	236	ePgC	7:10:49.65	0.50

267.

2015-07-16 time: 10:22:32.70 UTC ML= 0.4  
 lat: 47.181N lon: 18.302E h= 0.0 km  
 erh= 3.4km erz= 450km  
 nr= 6 gap=277 rms=0.26  
 Locality: Sárkeszi  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	20.5	351	ePg	10:22:36.30	-0.06
			eSg	22:38.91	-0.30
PKST	22.1	293	ePg	10:22:36.31	-0.33
			eSg	22:40.11	0.40
PKSG	24.4	16	ePgC	10:22:37.32	0.27
			eSg	22:40.39	-0.05

268.

2015-07-17 time: 5:56:04.21 UTC ML= 0.9  
 lat: 45.997N lon: 18.183E h= 0.0 km  
 erh= 1.4km erz= 140km  
 nr= 6 gap=260 rms=0.08  
 Locality: Gyód  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	13.3	156	ePg	5:56:06.56	-0.01
			eSg	56:08.48	0.06
PKSM	42.7	56	ePgC	5:56:11.85	0.01
			eSg	56:17.54	-0.25
MORH	43.2	56	ePgC	5:56:11.89	-0.02
			eSg	56:18.05	0.13

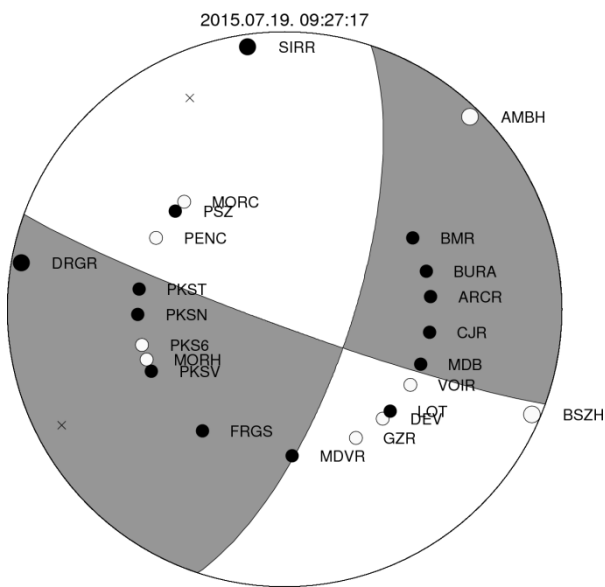
269.

2015-07-19 time: 9:27:17.36 UTC ML= 2.6  
 lat: 46.930N lon: 21.532E h= 5.9 km  
 erh= 2.0km erz= 2.2km  
 nr= 52 gap= 37 rms=1.21  
 Locality: Zsadány  
 Comments:

sta	dist	azm	phase	hr mn sec	res
LTVH	57.7	29	ePg	9:27:27.96	0.24
			eSg	27:36.05	0.24
SIRR	74.3	172	PgC	9:27:30.59	-0.08
			Sg	27:39.60	-1.45
AMBH	89.3	224	ePgD	9:27:33.64	0.30
			eSg	27:45.70	-0.10
DRGR	91.2	100	PgC	9:27:32.81	-0.86
			Sg	27:44.20	-2.20
BSZH	104.5	293	ePgD	9:27:37.21	1.17
			eSg	27:51.25	0.63
PKSN	126.9	268	ePnC	9:27:40.41	0.95
TRPA	153.5	30	ePn	9:27:41.06	-1.71
			Sn	28:02.80	0.21
PKS6	154.8	256	ePnD	9:27:44.32	1.39

### Hypocenter Parameters

		eSn	28:00.90	-1.98	
DEV	157.0	138	PnD	9:27:44.21	1.00
CJR	159.5	99	PnC	9:27:44.36	0.84
		Sn	28:04.10	0.18	
PSZ	165.4	312	ePnC	9:27:42.85	-1.40
		eSn	28:02.08	-3.15	
BMR	170.0	61	PnC	9:27:45.62	0.79
		Sn	28:06.30	0.05	
PKS2	183.9	255	ePn	9:27:47.79	1.22
		eSn	28:08.59	-0.76	
KECS	189.7	336	ePn	9:27:46.60	-0.69
		eSn	28:12.70	2.07	
PENC	195.1	299	ePnD	9:27:47.53	-0.43
		eSn	28:09.08	-2.75	
GZR	196.0	151	PnD	9:27:49.66	1.59
ARCR	215.2	85	PnC	9:27:51.66	1.19
		Sn	28:17.70	1.40	
CRVS	219.3	359	ePn	9:27:50.20	-0.78
		eSn	28:21.10	3.89	
KOLS	229.5	14	ePn	9:27:51.60	-0.65
		eSn	28:24.70	5.24*	
MORH	235.2	250	ePnD	9:27:50.90	-2.06
		eSn	28:16.08	-4.66*	
MDB	235.4	112	PnC	9:27:54.56	1.57
PKSM	235.6	250	ePn	9:27:50.94	-2.07
		eSn	28:15.95	-4.87*	
LOT	238.7	134	PnC	9:27:54.52	1.13
MDVR	239.2	177	PnC	9:27:55.65	2.19
FRGS	240.0	214	PnC	9:27:54.35	0.80
PKSG	243.7	282	ePn	9:27:53.02	-1.00
PKS9	251.5	261	ePn	9:27:53.20	-1.79
		eSn	28:21.03	-3.32	
VYHS	266.8	311	ePn	9:27:56.00	-0.90
		eSn	28:34.10	6.36*	
PKST	268.1	278	ePnC	9:27:56.07	-0.99
PKSV	277.5	245	ePnC	9:27:56.54	-1.70
KOVH	279.6	250	ePn	9:27:57.14	-1.36
		eSn	28:26.84	-3.74*	
BURA	289.0	75	PnC	9:28:00.95	1.28
VOIR	318.2	121	PnD	9:28:04.68	1.37*
MORC	433.2	317	PnD	9:28:17.07	-0.58*
KRLC	495.6	315	ePn	9:28:24.30	-1.12*
		eSn	29:13.50	-5.02*	
DPC	540.5	315	ePn	9:28:30.30	-0.72*
KHC	641.8	292	ePn	9:28:44.10	0.45*
		eSn	29:48.50	-2.46*	



### Földrengés paraméterek

270.  
 2015-07-19 time: 21:46:37.22 UTC ML= 1.8  
 lat: 48.082N lon: 22.352E h= 1.3 km  
 erh= 2.0km erz= 2.3km  
 nr= 24 gap= 72 rms=0.94  
 Locality: Olcsvaapáti  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
TRPA	14.9	69	PgD	21:46:40.09			0.19
			Sg		46:42.30		0.31
LTVH	84.6	204	PgC	21:46:52.15			-0.18
			Sg		47:03.30		-0.81
KOLS	94.8	356	ePg	21:46:54.00			-0.16
			eSg		47:06.30		-1.06
BMR	97.0	118	PgC	21:46:54.09			-0.45
			Sg		47:05.00		-3.05
CRVS	112.5	324	ePg	21:46:57.30			-0.01
			eSg		47:11.50		-1.47
KECS	145.5	288	ePn	21:47:01.20			-1.03
			eSn		47:19.00		-2.74
CJR	178.9	148	PnD	21:47:07.59			1.20
			Sn		47:29.40		0.25
BSZH	179.1	241	Sn	21:47:29.80			0.61
PSZ	184.3	264	PnC	21:47:08.50			1.43
			Sn		47:31.50		1.15
ARCR	187.0	126	PnD	21:47:08.56			1.16
			Sn		47:30.00		-0.94
BURA	220.6	104	PnC	21:47:13.27			1.67
			Sn		47:38.70		0.29
DEV	248.0	170	PnD	21:47:15.76			0.75
			Sn		47:45.20		0.71
BZS	279.7	192	PnD	21:47:20.22			1.25
GZR	300.6	174	PnC	21:47:22.94			1.37*

271.  
 2015-07-20 time: 8:24:08.09 UTC ML= 0.9  
 lat: 47.399N lon: 18.368E h= 0.0 km  
 erh= 3.2km erz= 0.9km  
 nr= 6 gap=231 rms=0.43  
 Locality: Gánt  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	1.9	114	ePgC	8:24:09.15			0.00
			eSg		24:09.44		-0.54
CSKK	9.0	244	ePg	8:24:10.48			0.50
			eSg		24:11.94		0.48
PKST	29.6	238	ePg	8:24:13.49			0.02
			eSg		24:16.83		-0.84

272.  
 2015-07-20 time: 20:11:51.97 UTC ML= 1.2  
 lat: 47.744N lon: 16.194E h= 4.3 km  
 erh= 1.9km erz= 2.1km  
 nr= 24 gap= 94 rms=0.80  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
SOP	28.1	104	ePgD	20:11:58.03			0.97
			eSg		12:01.34		0.31
CONA	32.3	309	Pg	20:11:58.14			0.35
			Sg		12:02.33		0.01
ARSA	74.6	223	Pg	20:12:04.75			-0.57
			Sg		12:14.09		-1.64
ZST	84.4	53	ePg	20:12:06.40			-0.67
			eSg		12:17.90		-0.95
MODS	106.9	49	ePg	20:12:11.10			0.02
			eSg		12:24.50		-1.48
MPLH	119.8	122	ePg	20:12:14.55			1.16

## Földrengés paraméterek

## Hypocenter Parameters

SMOL 125.6 47 ePn 20:12:13.90 -0.21  
 eSn 12:29.40 -1.98  
 MOA 144.9 275 Pn 20:12:17.64 1.12  
 Sn 12:35.28 -0.39  
 SOKA 147.6 217 Pn 20:12:17.02 0.16  
 Sn 12:35.32 -0.94  
 OBKA 185.6 222 Pn 20:12:21.65 0.06  
 Sn 12:44.53 -0.16  
 KBA 227.4 251 Pn 20:12:27.45 0.64  
 Sn 12:54.07 0.09  
 KHC 247.5 309 ePn 20:12:32.10 2.79  
 eSn 13:01.40 2.96\*  
 PRU 277.5 334 eSn 20:13:05.70 0.61

273.

2015-07-21 time: 3:09:25.60 UTC ML= 0.4  
 lat: 45.923N lon: 18.573E h= 2.6 km  
 erh= 0.4km erz= 3.0km  
 nr= 8 gap=252 rms=0.03  
 Locality: Töttös  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSV	25.2	261	ePg	3:09:30.15			0.02
			eSg	09:33.61			-0.05
PKSM	32.5	9	ePg	3:09:31.39			-0.03
			eSg	09:36.04			0.08
MORH	33.0	10	ePg	3:09:31.48			-0.02
			eSg	09:36.11			0.00
KOVH	41.0	297	ePgD	3:09:32.96			0.02
			eSg	09:38.63			-0.03

274.

2015-07-21 time: 9:06:32.02 UTC ML= 0.4  
 lat: 47.173N lon: 18.310E h= 0.0 km  
 erh= 1.1km erz= 147km  
 nr= 6 gap=281 rms=0.09  
 Locality: Sárkeszi  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	21.5	350	ePg	9:06:35.81			-0.05
			eSg	06:38.98			0.12
PKST	23.0	295	ePg	9:06:36.21			0.09
			eSg	06:39.18			-0.14
PKSG	25.1	14	ePg	9:06:36.53			0.02
			eSg	06:39.94			-0.07

275.

2015-07-21 time: 13:36:18.86 UTC ML= 2.1  
 lat: 48.040N lon: 20.861E h= 0.7 km  
 erh= 1.9km erz= 2.4km  
 nr= 16 gap=124 rms=0.60  
 Locality: Kistokaj  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
KECS	56.6	331	ePg	13:36:28.90			-0.07
			eSg	36:36.30			-0.55
PSZ	73.4	259	ePgD	13:36:31.74			-0.23
			eSg	36:42.68			0.48
CRVS	105.6	25	ePg	13:36:37.70			-0.03
			eSg	36:50.10			-2.35
LTVH	106.8	133	ePg	13:36:38.04			0.11
			eSg	36:52.59			-0.21
PENC	121.3	257	ePg	13:36:40.55			0.03
			eSg	36:56.41			-1.00
KOLS	144.1	46	ePn	13:36:44.90			1.13
			eSn	37:01.90			-1.30
VYHS	158.6	289	ePn	13:36:46.00			0.42
			eSn	37:05.00			-1.41

LANS 160.6 320 ePn 13:36:46.60 0.77  
 eSn 37:05.70 -1.17

276.

2015-07-22 time: 22:22:41.63 UTC ML= 0.6  
 lat: 47.338N lon: 17.425E h= 0.9 km  
 erh= 3.9km erz=67.6km  
 nr= 8 gap=166 rms=0.57  
 Locality: Borsosgyőr  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
EGYH	11.3	321	ePgC	22:22:42.70			-0.96
			eSg	22:45.70			0.47
MPLH	20.6	155	ePgC	22:22:45.43			0.12
			eSg	22:47.82			-0.36
PKST	46.9	101	ePgC	22:22:50.51			0.50
			eSg	22:55.82			-0.72
PKSG	73.2	85	ePg	22:22:55.32			0.62
			eSg	23:05.07			0.18

277.

2015-07-24 time: 8:08:15.86 UTC ML= 1.7  
 lat: 48.926N lon: 21.024E h= 0.0 km  
 erh= 3.4km erz= 3.8km  
 nr= 7 gap=158 rms=0.49  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CRVS	32.2	95	ePg	8:08:20.80			-0.81
STHS	56.9	16	eSg	8:08:34.10			0.16
KECS	63.2	219	ePg	8:08:27.50			0.36
			eSg	08:35.50			-0.44
KOLS	91.6	89	ePg	8:08:32.40			0.19
PSZ	139.8	217	ePn	8:08:41.02			0.70
			eSn	08:59.07			-0.33

278.

2015-07-24 time: 8:48:14.83 UTC ML= 1.5  
 lat: 47.854N lon: 19.100E h= 0.0 km  
 erh= 5.9km erz= 841km  
 nr= 6 gap=227 rms=0.52  
 Locality: Szendehely  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PENC	15.3	118	ePgC	8:48:17.12			-0.44
			eSg	48:20.22			0.52
PSZ	59.8	83	ePg	8:48:25.54			0.03
			eSg	48:33.37			-0.48
VYHS	73.8	345	ePg	8:48:28.90			0.89
			eSg	48:37.90			-0.39

279.

2015-07-25 time: 9:12:56.77 UTC ML= 0.5  
 lat: 46.182N lon: 18.295E h= 0.0 km  
 erh= 1.4km erz= 212km  
 nr= 8 gap=207 rms=0.16  
 Locality: Zobákpuszta  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
KOVH	18.3	235	ePgC	9:12:59.88			-0.17
			eSg	13:02.84			0.24
PKSM	26.9	83	ePg	9:13:01.61			0.02
			eSg	13:05.31			-0.03
MORH	27.2	82	ePgC	9:13:01.73			0.10
			eSg	13:05.41			-0.01
PKSV	32.8	186	ePg	9:13:02.73			0.10

## Hypocenter Parameters

## Földrengés paraméterek

eSg 13:06.68 -0.52

eSg 46:12.36 0.07

280.

2015-07-28 time: 9:09:38.24 UTC ML= 1.2  
 lat: 48.613N lon: 20.767E h= 0.0 km  
 erh= 5.6km erz= 5.0km  
 nr= 7 gap=162 rms=0.25  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	25.3	235	ePg	9:09:42.40	-0.36
			eSg	09:46.40	0.12
CRVS	60.3	58	ePg	9:09:49.40	0.39
			eSg	09:57.10	-0.32
PSZ	100.8	220	ePg	9:09:56.31	0.07
			eSg	10:10.36	0.08
VYHS	143.2	265	ePn	9:10:03.10	-0.02
			eSn	10:20.30	-2.23*

281.

2015-07-30 time: 13:28:32.77 UTC ML= 2.0  
 lat: 48.361N lon: 19.846E h= 0.0 km  
 erh= 1.0km erz= 1.7km  
 nr= 8 gap=142 rms=0.29  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	49.3	74	ePg	13:28:41.50	-0.07
			eSg	28:48.10	-0.33
PSZ	49.4	176	ePgD	13:28:41.57	-0.02
			eSg	28:48.25	-0.22
VYHS	76.1	281	ePg	13:28:46.50	0.13
			eSg	28:56.60	-0.37
CRVS	133.4	63	ePn	13:28:57.10	0.66
			eSn	29:15.20	0.30

282.

2015-07-30 time: 15:41:27.51 UTC ML= 0.3  
 lat: 47.390N lon: 18.224E h= 2.2 km  
 erh= 2.1km erz= 3.3km  
 nr= 6 gap=225 rms=0.05  
 Locality: Mór  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	4.1	137	ePg	15:41:28.43	0.09
			eSg	41:28.93	-0.05
PKSG	12.6	89	ePg	15:41:29.77	-0.03
			eSg	41:31.54	-0.04
PKST	20.4	225	ePg	15:41:31.20	0.02
			eSg	41:34.01	-0.03

283.

2015-08-02 time: 11:45:55.20 UTC ML= 0.4  
 lat: 45.852N lon: 18.209E h= 10.8 km  
 erh= 1.5km erz= 1.1km  
 nr= 8 gap=302 rms=0.16  
 Locality: Harkány  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSV	5.3	39	ePg	11:45:57.13	-0.22
			eSg	45:59.27	0.24
KOVH	27.7	342	ePg	11:46:00.73	0.22
			eSg	46:04.45	-0.20
PKSM	52.2	40	ePg	11:46:04.73	0.01
			eSg	46:12.05	-0.09
MORH	52.7	40	ePg	11:46:04.79	-0.01

284.

2015-08-02 time: 23:09:19.73 UTC ML= 1.2  
 lat: 47.450N lon: 18.434E h= 11.5 km  
 erh= 2.7km erz= 1.9km  
 nr= 29 gap= 88 rms=1.02  
 Locality: Várgesztes  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	7.3	207	ePgD	23:09:22.08	-0.08
			eSg	09:23.45	-0.60
CSKK	16.3	234	ePgD	23:09:23.43	0.14
			eSg	09:26.37	0.30
SRO2	34.9	355	ePg	23:09:25.80	-0.49
			eSg	09:30.60	-0.80
PKST	36.9	235	ePg	23:09:26.73	0.09
			eSg	09:32.55	0.52
BUD	44.6	85	ePg	23:09:27.96	0.00
			eSg	09:33.73	-0.65
TIH	73.7	214	ePg	23:09:33.34	0.29
			eSg	09:44.05	0.62
MPLH	74.5	245	ePg	23:09:33.67	0.48
			eSg	09:44.86	1.18
EGYH	83.2	267	ePgC	23:09:31.87	-2.87
			eSg	09:43.05	-3.39
PKS9	96.7	187	eP*	23:09:38.30	1.19
			eS*	09:51.03	0.36
VYHS	119.9	15	ePn	23:09:41.10	0.85
			eSn	09:55.10	-1.15
PSZ	121.4	65	ePn	23:09:41.37	0.94
			eSn	09:56.25	-0.33
MODS	134.2	320	ePn	23:09:44.50	2.46
MORH	138.2	173	ePn	23:09:42.56	0.03
			eSn	09:58.66	-1.65
PKSM	138.6	173	ePnD	23:09:42.58	0.00
			eSn	09:58.52	-1.88
KOVH	153.5	190	ePn	23:09:43.69	-0.75
			eSn	10:01.89	-1.83

285.

2015-08-03 time: 9:17:03.96 UTC ML= 0.5  
 lat: 46.174N lon: 18.292E h= 0.0 km  
 erh= 0.9km erz= 174km  
 nr= 7 gap=203 rms=0.11  
 Locality: Zobákpusztá  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	17.7	237	ePg	9:17:06.91	-0.20
			eSg	17:09.82	0.24
PKSM	27.3	81	ePg	9:17:08.87	0.05
			eSg	17:12.60	-0.02
MORH	27.5	80	ePg	9:17:08.89	0.02
			eSg	17:12.74	0.03
PKSV	31.9	186	eSg	9:17:14.08	-0.02

286.

2015-08-03 time: 13:08:22.45 UTC ML= 0.5  
 lat: 46.005N lon: 18.084E h= 0.0 km  
 erh= 1.2km erz= 159km  
 nr= 6 gap=306 rms=0.09  
 Locality: Aranyosgadány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	9.4	8	ePg	13:08:24.00	-0.12
			eSg	08:25.53	0.10
PKSM	48.9	62	ePg	13:08:31.24	0.07
			eSg	08:38.00	0.02

## Földrengés paraméterek

MORH 49.3 62 ePg 13:08:31.30 0.06  
eSg 08:37.97 -0.13

287.

2015-08-04 time: 5:40:38.17 UTC ML= 0.7  
lat: 47.290N lon: 18.347E h= 0.0 km  
erh= 1.0km erz= 160km  
nr= 6 gap=245 rms=0.10  
Locality: Magyaralmás  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	10.4	321	ePg	5:40:39.94	-0.09
			eSg	40:41.35	-0.13
PKSG	11.8	16	ePgC	5:40:40.34	0.07
			eSg	40:41.98	0.07
PKST	23.9	262	ePgD	5:40:42.37	-0.06
			eSg	40:45.96	0.20

288.

2015-08-04 time: 9:24:12.43 UTC ML= 0.6  
lat: 47.196N lon: 18.287E h= 0.0 km  
erh= 1.9km erz= 245km  
nr= 6 gap=270 rms=0.15  
Locality: Sárkeszi  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	18.7	354	ePg	9:24:15.64	-0.12
			eSg	24:18.03	-0.33
PKST	20.4	290	ePg	9:24:16.08	0.01
			eSg	24:19.05	0.14
PKSG	23.1	20	ePg	9:24:16.63	0.07
			eSg	24:19.95	0.18

289.

2015-08-05 time: 7:06:39.36 UTC ML= 0.9  
lat: 47.456N lon: 18.402E h= 0.0 km  
erh= 2.3km erz= 277km  
nr= 6 gap=315 rms=0.16  
Locality: Várgesztes  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	7.2	187	ePgC	7:06:40.82	0.17
			eSg	06:41.40	-0.25
CSKK	14.9	226	ePgC	7:06:42.06	0.04
			eSg	06:44.20	0.11
PKST	35.4	232	ePg	7:06:45.44	-0.24
			eSg	06:50.65	0.04

290.

2015-08-05 time: 8:39:10.20 UTC ML= 0.9  
lat: 47.837N lon: 19.443E h= 0.0 km  
erh= 3.0km erz= 742km  
nr= 6 gap=172 rms=0.44  
Locality: Vanyarc  
Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	13.1	247	ePgC	8:39:12.20	-0.35
			eSg	39:15.61	1.24
PSZ	35.0	75	ePg	8:39:16.28	-0.17
			eSg	39:21.71	0.39
VYHS	85.9	328	ePg	8:39:25.60	0.06
			eSg	39:37.20	-0.31

## Hypocenter Parameters

291.

2015-08-05 time: 12:17:17.16 UTC ML= 2.5  
lat: 48.059N lon: 20.110E h= 1.4 km  
erh= 4.2km erz= 3.7km  
nr= 37 gap= 89 rms=1.65  
Locality: Váraszó  
Comments: felt 5 EMS

sta	dist	azm	phase	hr mn sec	res
PSZ	22.4	226	ePgD	12:17:21.22	0.05
			eSg	17:24.61	0.32
PENC	68.7	244	ePg	12:17:29.41	-0.02
			eSg	17:37.99	-1.01
BUD	103.5	232	ePg	12:17:34.43	-1.21
			eSg	17:46.70	-3.36
VYHS	106.2	297	ePg	12:17:35.80	-0.33
			eSg	17:49.30	-1.62
LANS	130.3	339	ePn	12:17:40.40	0.14
			eSn	17:56.10	-2.18
PKS7	133.2	212	ePn	12:17:39.73	-0.89
			eSn	17:56.61	-2.31
CRVS	137.1	47	ePn	12:17:41.00	-0.10
			eSn	17:59.00	-0.78
PKSG	148.8	240	ePnD	12:17:42.09	-0.47
			eSn	18:00.19	-2.19
LTVH	153.8	119	ePn	12:17:38.30	-4.89
			eSn	18:02.11	-1.39
CSKK	158.9	241	ePn	12:17:43.63	-0.19
			eSn	18:04.29	-0.33
STHS	172.5	29	e n	12:17:46.80	1.28
PKST	179.5	240	ePn	12:17:45.61	-0.78
			eSn	18:09.29	0.10
TRPA	181.1	87	ePn	12:17:48.40	1.80
			eSn	18:08.78	-0.78
MODS	213.4	279	ePn	12:17:54.40	3.78
			eSn	18:21.30	4.58
PKS9	214.3	220	eSn	12:18:18.75	1.83
MPLH	217.0	243	ePn	12:17:54.41	3.34
			eSn	18:20.72	3.19
ZST	224.4	274	eSn	12:18:22.50	3.34
MORH	233.1	208	ePn	12:17:55.40	2.32
			eSn	18:22.28	1.19
PKSM	233.6	208	ePnD	12:17:55.88	2.74
			eSn	18:22.67	1.47
KOVH	267.0	215	ePn	12:18:01.10	3.80
			eSn	18:32.88	4.26
DPC	375.7	313	ePn	12:18:12.40	1.54*
KHC	496.4	284	ePn	12:18:25.20	-0.70*
			eSn	19:22.30	2.78*

292.

2015-08-06 time: 5:21:24.73 UTC ML= 1.8  
lat: 47.376N lon: 19.947E h= 10.0 km  
erh= 3.5km erz= 2.4km  
nr= 20 gap=168 rms=0.96  
Locality: Portelek  
Comments:

sta	dist	azm	phase	hr mn sec	res
PKSN	53.6	186	ePg	5:21:34.61	0.14
			eSg	21:43.03	0.96
PSZ	60.4	356	ePgC	5:21:34.92	-0.74
			eSg	21:42.66	-1.52
PENC	68.0	313	ePg	5:21:37.69	0.69
			eSg	21:47.27	0.70
PKS7	69.9	238	ePg	5:21:36.91	-0.43
			eSg	21:46.36	-0.81
PKS6	91.1	199	ePg	5:21:40.67	-0.43
			eSg	21:52.94	-0.92
PKSG	117.5	271	ePn	5:21:45.15	0.01
			eSn	21:59.50	-1.56
CSKK	127.4	269	eSn	5:22:02.48	-0.76
KECS	129.5	18	eSn	5:22:03.20	-0.51

## Hypocenter Parameters

VYHS 149.4 326 ePn 5:21:51.10 1.98  
 PKS9 154.3 235 ePn 5:21:51.20 1.47  
 eSn 22:10.07 0.85  
 MORH 162.9 218 ePn 5:21:49.34 -1.46  
 PKSM 163.4 218 ePn 5:21:52.24 1.38  
 eSn 22:12.86 1.62

293.

2015-08-06 time: 6:09:43.84 UTC ML= 1.1  
 lat: 47.427N lon: 18.386E h= 0.0 km  
 erh= 1.6km erz= 189km  
 nr= 5 gap=300 rms=0.09  
 Locality: Gánt  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	3.9	175	ePgC	6:09:44.53	-0.01
			eSg	09:45.01	-0.08
CSKK	11.8	233	ePgD	6:09:45.98	0.03
			eSg	09:47.78	0.18
PKST	32.5	235	eSg	6:09:54.03	-0.13

294.

2015-08-06 time: 7:01:51.60 UTC ML= 0.9  
 lat: 47.445N lon: 18.373E h= 0.0 km  
 erh= 3.9km erz= 492km  
 nr= 6 gap=296 rms=0.30  
 Locality: Oroszlány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	6.0	167	ePgC	7:01:52.70	0.02
			eSg	01:53.20	-0.32
CSKK	12.4	223	ePg	7:01:54.08	0.26
			eSg	01:55.99	0.45
PKST	32.9	231	ePgC	7:01:57.45	-0.02
			eSg	02:01.37	-0.68

295.

2015-08-06 time: 8:16:29.35 UTC ML= 0.8  
 lat: 47.229N lon: 18.289E h= 0.0 km  
 erh= 3.6km erz= 576km  
 nr= 8 gap=240 rms=0.41  
 Locality: Moha  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	15.1	352	ePg	8:16:31.49	-0.55
			eSg	16:34.26	0.12
PKST	19.6	280	ePg	8:16:32.41	-0.44
			eSg	16:35.32	-0.26
PKSG	19.6	23	ePg	8:16:32.86	0.00
			eSg	16:36.19	0.59
MPLH	57.2	263	ePg	8:16:39.89	0.32
			eSg	16:48.14	0.60

296.

2015-08-07 time: 5:33:28.08 UTC ML= 0.6  
 lat: 47.291N lon: 18.350E h= 0.0 km  
 erh= 2.5km erz= 387km  
 nr= 6 gap=246 rms=0.24  
 Locality: Magyaralmás  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	10.5	320	ePg	5:33:29.83	-0.13
			eSg	33:31.07	-0.35
PKSG	11.6	15	ePgC	5:33:30.26	0.10
			eSg	33:31.93	0.15
PKST	24.1	262	ePg	5:33:32.23	-0.16

## Földrengés paraméterek

eSg 33:36.30 0.55

297.

2015-08-07 time: 8:23:56.20 UTC ML= 1.3  
 lat: 47.071N lon: 18.050E h= 0.0 km  
 erh= 2.1km erz= 709km  
 nr= 13 gap=128 rms=0.60  
 Locality: Balatonfűzfő  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	20.9	357	ePg	8:23:59.13	-0.82
			eSg	24:02.87	0.01
TIH	22.4	212	ePg	8:23:59.84	-0.37
CSKK	36.2	26	ePg	8:24:02.96	0.29
			eSg	24:08.25	0.54
MPLH	40.3	286	ePg	8:24:02.90	-0.50
			eSg	24:09.87	0.86
MORH	105.4	154	ePg	8:24:15.52	0.50
			eSg	24:28.64	-1.06
PKSM	105.7	155	ePg	8:24:15.52	0.44
			eSg	24:28.64	-1.16
KOVH	109.3	178	ePg	8:24:16.48	0.76
			eSg	24:30.67	-0.27

298.

2015-08-07 time: 8:40:32.14 UTC ML= 0.7  
 lat: 46.076N lon: 18.337E h= 0.0 km  
 erh= 7.6km erz= 397km  
 nr= 6 gap=217 rms=0.24  
 Locality: Bogád  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	18.4	274	ePg	8:40:35.26	-0.16
			eSg	40:38.30	0.31
PKSM	27.9	57	ePg	8:40:37.32	0.20
			eSg	40:40.46	-0.55
MORH	28.4	57	ePg	8:40:37.24	0.04
			eSg	40:41.15	0.00

299.

2015-08-07 time: 11:26:08.82 UTC ML= 1.2  
 lat: 47.416N lon: 18.702E h= 0.0 km  
 erh= 6.8km erz= 603km  
 nr= 7 gap=246 rms=0.40  
 Locality: Pusztazámor  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	23.7	263	ePg	11:26:13.75	0.71
			eSg	26:16.68	0.34
CSKK	33.9	260	ePg	11:26:14.81	-0.05
			eSg	26:19.13	-0.45
PKST	53.4	251	ePg	11:26:18.38	0.03
			eSg	26:25.30	-0.49
VYHS	120.3	5	ePg	11:26:30.00	-0.29
			eSg	26:42.90	-4.14*

300.

2015-08-10 time: 21:51:04.22 UTC ML= 0.8  
 lat: 47.276N lon: 18.330E h= 0.0 km  
 erh= 3.1km erz= 462km  
 nr= 6 gap=245 rms=0.28  
 Locality: Magyaralmás  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	11.0	332	ePgC	21:51:05.95	-0.23
			eSg	51:07.34	-0.37



## Földrengés paraméterek

## Hypocenter Parameters

PKSG 13.7 20 ePgC 21:51:06.76 0.10  
 eSg 51:09.02 0.46  
 PKST 22.4 265 ePgD 21:51:08.10 -0.12  
 eSg 51:11.84 0.49

301.

2015-08-11 time: 6:33:05.69 UTC ML= 1.5  
 lat: 47.980N lon: 19.958E h= 0.0 km  
 erh= 3.9km erz= 939km  
 nr= 7 gap=180 rms=0.63  
 Locality: Mátramindszent  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PSZ	8.4	215	ePgC	6:33:06.59			-0.60
			eSg	33:08.92			0.56
PENC	54.8	247	ePg	6:33:14.90			-0.58
			eSg	33:24.08			0.96
KECS	68.3	35	eSg	6:33:28.20			0.81
VYHS	101.0	304	ePg	6:33:24.00			0.27
			eSg	33:37.20			-0.61

302.

2015-08-11 time: 8:43:11.44 UTC ML= 0.6  
 lat: 47.186N lon: 18.314E h= 0.0 km  
 erh= 5.5km erz= 684km  
 nr= 5 gap=280 rms=0.32  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	20.1	348	ePg	8:43:14.79			-0.24
			eSg	43:17.98			0.15
PKST	22.7	291	ePg	8:43:15.24			-0.25
			eSg	43:18.50			-0.15
MPLH	58.7	268	ePg	8:43:22.50			0.57

303.

2015-08-11 time: 8:44:28.87 UTC ML= 0.3  
 lat: 47.181N lon: 18.304E h= 0.0 km  
 erh= 0.8km erz= 107km  
 nr= 6 gap=277 rms=0.06  
 Locality: Sárkeszi  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	20.5	351	ePg	8:44:32.64			0.11
			eSg	44:35.41			0.02
PKST	22.2	293	ePg	8:44:32.80			-0.03
			eSg	44:35.89			-0.03
PKSG	24.3	16	ePg	8:44:33.21			-0.01
			eSg	44:36.51			-0.10

304.

2015-08-12 time: 7:57:16.53 UTC ML= 1.0  
 lat: 47.113N lon: 17.963E h= 0.0 km  
 erh= 6.0km erz= 833km  
 nr= 8 gap=235 rms=0.60  
 Locality: Kádárta  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	17.1	18	ePg	7:57:19.25			-0.33
			eSg	57:21.64			-0.33
MPLH	32.8	281	ePg	7:57:23.26			0.88
			eSg	57:26.30			-0.64
CSKK	35.8	39	ePg	7:57:23.10			0.18
			eSg	57:28.02			0.12
PKSG	44.8	46	ePg	7:57:23.79			-0.74
			eSg	57:31.77			1.00

305.

2015-08-12 time: 13:47:36.51 UTC ML= 1.1  
 lat: 47.565N lon: 18.503E h= 7.3 km  
 erh= 4.4km erz= 3.9km  
 nr= 15 gap=190 rms=0.83  
 Locality: Tarján  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSG	21.1	204	ePg	13:47:40.09			-0.40
			eSg	47:43.06			-0.54
SRO2	23.4	340	ePg	13:47:40.00			-0.90
			eSg	47:43.50			-0.82
CSKK	29.0	219	ePg	13:47:41.30			-0.55
			eSg	47:46.55			0.54
SRO	31.1	333	ePg	13:47:42.40			0.19
			eSg	47:47.80			1.15
PKST	49.1	226	ePg	13:47:44.96			-0.42
			eSg	47:52.02			-0.27
MPLH	85.0	239	ePg	13:47:53.98			2.23
			eSg	48:03.67			0.03
VYHS	106.2	14	ePg	13:47:56.50			0.98
			eSg	48:09.70			-0.65
MODS	128.3	314	eSn	13:48:15.70			-0.14

306.

2015-08-13 time: 8:14:39.32 UTC ML= 0.7  
 lat: 46.058N lon: 18.345E h= 0.0 km  
 erh= 2.7km erz= 178km  
 nr= 6 gap=227 rms=0.11  
 Locality: Magyarsarlós  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
KOVH	19.3	280	ePg	8:14:42.63			-0.13
			eSg	14:45.52			0.08
PKSM	28.6	53	ePg	8:14:44.55			0.12
			eSg	14:48.27			-0.14
MORH	29.0	53	ePg	8:14:44.59			0.09
			eSg	14:48.49			-0.06

307.

2015-08-13 time: 9:33:08.29 UTC ML= 2.3  
 lat: 48.886N lon: 20.485E h= 0.0 km  
 erh= 2.7km erz= 3.5km  
 nr= 11 gap=156 rms=0.72  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
KECS	44.8	180	ePg	9:33:16.00			-0.29
			eSg	33:21.50			-1.03
CRVS	71.6	89	ePg	9:33:21.00			-0.08
			eSg	33:31.10			0.04
LANS	80.0	292	eSg	9:33:33.10			-0.63
PSZ	116.1	202	ePg	9:33:29.09			0.06
			eSg	33:43.41			-1.80
VYHS	129.0	250	ePg	9:33:32.50			1.17
KOLS	131.2	88	ePn	9:33:31.70			0.02
			eSn	33:49.40			-0.53
PENC	151.0	216	eSn	9:33:55.98			1.66

308.

2015-08-13 time: 10:14:16.25 UTC ML= 1.5  
 lat: 48.655N lon: 20.858E h= 0.0 km  
 erh= 1.7km erz= 2.2km  
 nr= 9 gap=148 rms=0.37  
 Locality: Slovakia  
 Comments: probably explosion

## Hypocenter Parameters

## Földregés paraméterek

sta	dist	azm	phase	hr	mn	sec	res
KECS	33.5	235	ePg	10:14:22.30			0.07
			eSg	14:27.20			0.31
CRVS	52.1	58	ePg	10:14:25.70			0.14
KOLS	108.5	73	eSg	10:14:50.50			-0.22
PSZ	108.8	221	ePg	10:14:35.93			0.26
			eSg	14:50.19			-0.63
LANS	115.8	298	ePg	10:14:37.20			0.27
			eSg	14:51.80			-1.27
VYHS	150.3	263	eSn	10:15:01.30			-0.82

309.

2015-08-14 time: 2:58:26.18 UTC ML= 1.1  
 lat: 46.140N lon: 19.740E h= 9.6 km  
 erh=10.0km erz= 2.9km  
 nr= 8 gap=334 rms=0.44  
 Locality: Serbia  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
MORH	85.1	276	ePg	2:58:41.46			-0.01
			eSg	58:53.36			-0.03
PKSM	85.3	275	ePg	2:58:41.42			-0.08
			eSg	58:53.48			0.03
PKS9	123.0	294	ePn	2:58:47.80			0.49
			eSn	59:03.24			-0.55
KOVH	127.0	267	ePn	2:58:47.38			-0.43
			eSn	59:06.35			1.67

310.

2015-08-14 time: 6:38:04.32 UTC ML= 0.9  
 lat: 47.573N lon: 18.444E h= 10.0 km  
 erh= 3.3km erz= 2.4km  
 nr= 9 gap=175 rms=0.35  
 Locality: Tatabánya  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSG	20.6	191	ePgD	6:38:08.16			-0.24
			eSg	38:11.96			0.37
SRO2	21.4	350	eSg	6:38:11.90			0.07
CSKK	27.1	211	ePgD	6:38:09.21			-0.27
			eSg	38:13.84			0.33
PKST	46.6	221	ePg	6:38:12.52			-0.32
			eSg	38:19.51			0.03
VYHS	106.5	16	eP*	6:38:24.20			0.87
			eS*	38:38.00			-0.16

311.

2015-08-15 time: 15:33:25.40 UTC ML= 1.9  
 lat: 47.883N lon: 16.384E h= 0.3 km  
 erh= 3.0km erz= 3.9km  
 nr= 26 gap= 56 rms=1.40  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
SOP	25.8	150	ePgD	15:33:31.38			1.38
			eSg	33:35.10			1.51
CONA	39.4	277	Pg	15:33:32.78			0.35
			Sg	33:37.83			-0.08
ZST	63.9	57	ePg	15:33:36.10			-0.70
			eSg	33:43.90			-1.80
MODS	86.0	51	ePg	15:33:40.60			-0.15
			eSg	33:51.80			-0.93
EGYH	88.1	126	ePg	15:33:38.64			-2.48
			eSg	33:50.23			-3.16
ARSA	95.6	223	Pg	15:33:42.39			-0.08
			Sg	33:54.37			-1.42
MPLH	117.7	132	ePg	15:33:46.46			0.04

sta	dist	azm	phase	hr	mn	sec	res
MOA	158.5	269	eSg	34:02.68			-0.13
			Pn	15:33:51.75			-0.41
			Sn	34:11.59			-1.45
KOGS	159.9	184	ePn	15:33:55.16			2.83
			eSn	34:13.68			0.34
SOKA	168.6	217	Pn	15:33:54.64			1.23
			Sn	34:13.53			-1.73
VYHS	194.6	70	ePn	15:33:58.90			2.24
			eSn	34:23.30			2.26
PRU	270.2	330	ePn	15:34:08.70			2.61
			eSn	34:39.40			1.56
DPC	274.4	359	ePn	15:34:09.40			2.79
			eSn	34:41.20			2.44

312.

2015-08-15 time: 15:35:30.90 UTC ML= 1.7  
 lat: 47.873N lon: 16.391E h= 3.1 km  
 erh= 2.9km erz= 3.0km  
 nr= 36 gap= 51 rms=1.52  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
SOP	24.5	149	ePgD	15:35:36.99			1.68
			eSg	35:40.74			1.99
CONA	40.1	279	Pg	15:35:38.32			0.24
			Sg	35:43.63			-0.05
ZST	64.1	56	ePg	15:35:41.80			-0.55
			eSg	35:49.30			-1.99
MODS	86.3	50	ePg	15:35:46.20			-0.12
			eSg	35:57.50			-0.85
EGYH	87.0	126	ePg	15:35:43.77			-2.66
			eSg	35:55.83			-2.72
ARSA	95.2	223	Pg	15:35:48.10			0.20
			Sg	36:00.02			-1.14
MPLH	116.5	132	ePg	15:35:51.83			0.11
			eSg	36:08.25			0.30
PKST	141.2	119	ePn	15:35:53.44			-1.71
			eSn	36:13.77			-0.29
CSKK	151.5	112	ePn	15:35:59.43			3.00
			eSn	36:13.61			-2.74
KOGS	158.8	184	ePn	15:35:59.98			2.65
			eSn	36:19.80			1.85
MOA	159.1	269	Pn	15:35:57.37			0.00
			Sn	36:17.20			-0.82
PKSG	159.5	110	eSn	15:36:15.85			-2.27
SOKA	168.0	218	Pn	15:35:57.66			-0.82
			Sn	36:18.99			-1.01
VYHS	194.5	69	ePn	15:36:04.00			2.21
			eSn	36:29.00			3.12
KOVH	237.2	147	ePn	15:36:07.18			0.07
KHC	250.6	304	ePn	15:36:09.80			1.02
			eSn	36:39.20			0.86
MORH	251.5	137	ePn	15:36:08.55			-0.35
PKSM	251.7	137	ePn	15:36:08.59			-0.33
PRU	271.5	330	ePn	15:36:13.80			2.41
			eSn	36:45.60			2.62
DPC	275.6	359	ePn	15:36:14.80			2.90
			eSn	36:46.70			2.82

313.

2015-08-15 time: 15:36:19.45 UTC ML= 0.7  
 lat: 47.832N lon: 16.303E h= 7.8 km  
 erh= 1.0km erz= 0.8km  
 nr= 9 gap=203 rms=0.16  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
SOP	25.3	131	ePgD	15:36:24.14			-0.04
			eSg	36:27.89			0.03
CONA	34.7	288	Pg	15:36:25.66			-0.14
			Sg	36:30.76			0.00

## Földrengés paraméterek

ARSA 87.4 222 Pg 15:36:35.35 0.24  
 Sg 36:47.25 -0.08  
 MOA 152.5 271 Pn 15:36:44.67 0.16  
 Sn 37:04.25 0.19  
 SOKA 160.4 217 Pn 15:36:45.16 -0.33

314.

2015-08-15 time: 15:37:58.45 UTC ML= 0.5  
 lat: 47.829N lon: 16.292E h= 0.1 km  
 erh= 1.6km erz= 363km  
 nr= 6 gap=200 rms=0.18  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr mn sec	res
SOP	25.7	129	ePg	15:38:02.95	-0.09
			eSg	38:06.65	0.03
CONA	34.0	289	Pg	15:38:04.41	-0.11
			Sg	38:09.36	0.09
ARSA	86.6	222	Pg	15:38:14.19	0.29
			Sg	38:25.73	-0.23
KHC	247.4	306	eSn	15:38:04.00	-61.85*

315.

2015-08-15 time: 15:53:39.22 UTC ML= 0.4  
 lat: 47.835N lon: 16.295E h= 3.6 km  
 erh= 1.0km erz= 1.1km  
 nr= 8 gap=203 rms=0.17  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr mn sec	res
SOP	26.0	131	ePg	15:53:43.73	-0.18
			eSg	53:47.54	-0.02
CONA	34.0	288	Pg	15:53:45.24	-0.09
			Sg	53:50.18	0.08
ARSA	87.2	222	Pg	15:53:55.18	0.37
			Sg	54:06.84	-0.13
MOA	151.9	271	Pn	15:54:04.82	0.09
			Sn	54:24.57	-0.06

316.

2015-08-15 time: 15:57:28.60 UTC ML= 1.7  
 lat: 47.901N lon: 16.396E h= 5.4 km  
 erh= 2.0km erz= 2.1km  
 nr= 32 gap= 64 rms=1.01  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr mn sec	res
SOP	27.1	153	ePgD	15:57:34.65	1.11
			eSg	57:38.37	0.98
CONA	40.1	274	Pg	15:57:36.04	0.21
			Sg	57:41.10	-0.36
ZST	62.0	58	ePg	15:57:39.50	-0.23
			eSg	57:47.20	-1.20
MODS	84.0	51	ePg	15:57:43.90	0.26
			eSg	57:55.10	-0.27
EGYH	88.5	127	ePg	15:57:42.64	-1.80
			eSg	57:53.50	-3.29
ARSA	97.7	222	Pg	15:57:45.86	-0.22
			Sg	57:57.63	-2.08
SMOL	102.6	48	eSg	15:58:00.70	-0.57
MPLH	118.4	133	ePn	15:57:50.21	0.51
PKST	142.4	120	ePn	15:57:54.27	1.57
			eSn	58:12.00	0.50
MOA	159.5	268	Pn	15:57:54.90	0.07
			Sn	58:14.55	-0.73
PKSG	160.2	111	eSn	15:58:14.63	-0.81
SOKA	170.7	217	Pn	15:57:56.86	0.64
			Sn	58:17.12	-0.65

## Hypocenter Parameters

VYHS 193.0 70 ePn 15:57:59.60 0.59  
 eSn 58:26.70 3.98\*  
 KOVH 239.6 147 ePn 15:58:04.87 0.05  
 KHC 249.1 303 ePn 15:58:08.00 2.00  
 eSn 58:33.00 -2.18  
 MORH 253.5 138 ePn 15:58:06.32 -0.23  
 PKSM 253.7 138 ePn 15:58:06.23 -0.35  
 PRU 269.0 330 ePn 15:58:12.00 3.52  
 eSn 58:43.30 3.72\*  
 DPC 272.4 359 ePn 15:58:12.30 3.39  
 eSn 58:44.20 3.85\*

317.

2015-08-15 time: 16:11:15.01 UTC ML= 1.8  
 lat: 47.876N lon: 16.383E h= 2.4 km  
 erh= 2.6km erz= 3.4km  
 nr= 26 gap= 69 rms=1.18  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr mn sec	res
SOP	25.2	149	ePgD	16:11:21.05	1.52
			eSg	11:24.78	1.73
CONA	39.4	278	Pg	16:11:22.44	0.38
			Sg	11:27.39	-0.17
ZST	64.3	56	ePg	16:11:25.80	-0.71
			eSg	11:33.60	-1.88
MODS	86.5	50	ePg	16:11:30.40	-0.07
			eSg	11:41.50	-1.02
EGYH	87.7	126	ePg	16:11:28.79	-1.88
			eSg	11:39.27	-3.62
ARSA	95.1	223	Pg	16:11:32.27	0.28
			Sg	11:44.22	-1.01
MPLH	117.3	132	ePg	16:11:36.00	0.04
			eSg	11:51.95	-0.34
MOA	158.5	269	Pn	16:11:41.40	-0.10
			Sn	12:00.74	-1.42
SOKA	167.9	217	Pn	16:11:43.49	0.81
			Sn	12:03.23	-1.03
VYHS	194.9	69	ePn	16:11:48.20	2.16
			eSn	12:13.10	2.85
KHC	249.9	304	ePn	16:11:53.70	0.80
			eSn	12:23.40	0.95
PRU	270.9	330	ePn	16:11:57.80	2.28
			eSn	12:29.60	2.49
DPC	275.1	359	ePn	16:11:59.90	3.85
			eSn	12:31.20	3.14*

318.

2015-08-15 time: 16:12:25.51 UTC ML= 0.6  
 lat: 47.890N lon: 16.369E h= 2.9 km  
 erh= 2.4km erz= 3.6km  
 nr= 18 gap= 90 rms=0.88  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr mn sec	res
SOP	27.0	148	ePgD	16:12:31.13	0.77
			eSg	12:35.07	0.93
CONA	38.2	276	Pg	16:12:32.55	0.20
			Sg	12:37.66	-0.02
ZST	64.4	58	ePg	16:12:36.90	-0.12
			eSg	12:43.80	-2.20
MODS	86.4	52	ePg	16:12:41.00	0.06
			eSg	12:51.70	-1.28
ARSA	95.4	222	Pg	16:12:42.54	-0.02
			Sg	12:54.19	-1.67
MOA	157.4	268	Pn	16:12:51.79	-0.01
			Sn	13:11.67	-0.63
KHC	248.1	304	ePn	16:13:06.00	2.89
			eSn	13:34.00	1.56
PRU	269.0	330	ePn	16:13:09.00	3.29
			eSn	13:39.60	2.52

## Hypocenter Parameters

DPC 273.6 359 ePn 16:13:09.50 3.21  
eSn 13:41.20 3.11\*

319.

2015-08-15 time: 17:03:07.98 UTC ML= 1.2  
lat: 47.854N lon: 16.360E h= 1.3 km  
erh= 3.4km erz= 8.0km  
nr= 14 gap= 81 rms=1.16  
Locality: Austria  
Comments:

sta	dist	azm	phase	hr mn sec	res
SOP	24.1	142	ePgD	17:03:13.29	1.00
			eSg	03:17.02	1.36
CONA	38.2	282	Pg	17:03:14.79	-0.01
			Sg	03:19.72	-0.41
EGYH	87.7	124	eSg	17:03:31.59	-4.27
MODS	89.4	50	ePg	17:03:24.10	0.15
			eSg	03:33.90	-2.51
ARSA	92.1	223	Pg	17:03:24.60	0.18
			Sg	03:36.32	-0.93
KHC	249.9	305	ePn	17:03:46.80	0.80
			eSn	04:16.20	0.54
PRU	272.2	331	eSn	17:04:21.50	0.89
DPC	277.6	359	ePn	17:03:52.30	2.84
			eSn	04:23.10	1.29

320.

2015-08-15 time: 17:34:44.77 UTC ML= 1.4  
lat: 47.856N lon: 16.422E h= 3.7 km  
erh= 3.3km erz= 4.3km  
nr= 24 gap= 67 rms=1.48  
Locality: Austria  
Comments:

sta	dist	azm	phase	hr mn sec	res
SOP	21.8	152	ePgD	17:34:50.71	2.00
			eSg	34:54.38	2.59
CONA	42.7	281	Pg	17:34:52.10	-0.32
			Sg	34:57.65	-0.74
ZST	63.2	53	ePg	17:34:55.70	-0.38
			eSg	35:05.40	0.50
EGYH	84.0	126	ePg	17:34:57.16	-2.62
			eSg	35:08.66	-2.84
MODS	85.8	48	ePg	17:35:00.60	0.50
			eSg	35:11.70	-0.36
ARSA	95.5	225	Pg	17:35:01.89	0.06
			Sg	35:14.20	-0.95
SMOL	104.6	46	eSg	17:35:17.10	-0.94
MOA	161.4	270	Pn	17:35:11.67	0.21
			Sn	35:31.99	-0.28
SOKA	168.0	219	Pn	17:35:14.54	2.26
			Sn	35:32.21	-1.53
VYHS	193.0	68	ePn	17:35:19.30	3.90
KRLC	248.2	6	ePn	17:35:20.80	-1.48
			eSn	35:50.10	-1.43
KHC	253.5	304	ePn	17:35:22.40	-0.55
			eSn	35:54.30	1.57
DPC	277.4	358	ePn	17:35:27.10	1.18
			eSn	36:02.70	4.67*

321.

2015-08-15 time: 17:35:30.42 UTC ML= 1.6  
lat: 47.904N lon: 16.378E h= 4.8 km  
erh= 2.3km erz= 2.8km  
nr= 16 gap=106 rms=0.78  
Locality: Austria  
Comments:

sta	dist	azm	phase	hr mn sec	res
SOP	28.0	151	ePgD	17:35:36.35	0.86

## Földrengés paraméterek

eSg 35:40.04 0.59  
CONA 38.7 274 Pg 17:35:37.75 0.36

ZST

MODS	84.9	52	ePg	17:35:41.30	-0.41
			eSg	35:49.70	-0.81
ARSA	97.0	222	Pg	17:35:45.80	0.20
			eSg	35:57.10	-0.35
SMOL	103.4	49	Pg	17:35:47.45	-0.32
			Sg	35:59.21	-2.09
MPLH	119.6	133	eSg	17:36:02.40	-0.93
			ePn	17:35:52.47	0.72
			eSn	36:06.59	-1.80
MOA	158.1	268	Pn	17:35:57.23	0.68
			Sn	36:16.47	-0.47
KHC	247.8	303	eSn	17:36:38.70	1.85
PRU	268.0	330	eSn	17:36:45.20	3.87*
DPC	272.1	359	eSn	17:36:46.10	3.87*

322.

2015-08-15 time: 17:40:45.54 UTC ML= 1.6  
lat: 47.917N lon: 16.412E h= 0.7 km  
erh= 2.2km erz= 6.2km  
nr= 17 gap=115 rms=0.91  
Locality: Austria  
Comments:

sta	dist	azm	phase	hr mn sec	res
SOP	28.2	157	ePgD	17:40:51.33	0.75
			eSg	40:54.98	0.47
CONA	41.2	272	Pg	17:40:52.83	-0.06
			Sg	40:57.68	-0.95
ZST	60.1	59	ePg	17:40:56.20	-0.07
			eSg	41:04.70	0.06
MODS	82.0	52	ePg	17:40:59.50	-0.68
			eSg	41:12.20	0.60
EGYH	88.7	129	eSg	17:41:10.24	-3.48
SMOL	100.5	49	eSg	17:41:17.20	-0.30
MPLH	118.7	134	ePg	17:41:07.63	0.88
			eSg	41:22.34	-0.94
KHC	249.1	303	ePn	17:41:24.30	0.76
			eSn	41:53.50	0.31
PRU	268.0	329	eSn	17:41:59.60	2.22
DPC	270.7	359	ePn	17:41:29.60	3.37
			eSn	42:01.40	3.43*

323.

2015-08-15 time: 17:59:50.06 UTC ML= 1.7  
lat: 47.855N lon: 16.378E h= 6.2 km  
erh= 2.6km erz= 2.7km  
nr= 30 gap= 73 rms=1.28  
Locality: Austria  
Comments:

sta	dist	azm	phase	hr mn sec	res
SOP	23.4	145	ePgD	17:59:56.11	1.72
			eSg	59:59.78	2.02
CONA	39.4	282	Pg	17:59:57.25	0.06
			Sg	18:00:02.04	-0.71
ZST	66.1	55	ePg	17:60:01.00	-0.91
			eSg	60:10.00	-1.15
EGYH	86.7	124	ePg	17:60:03.78	-1.80
			eSg	60:14.85	-2.84
MODS	88.4	49	ePg	17:60:05.70	-0.19
			eSg	60:17.20	-1.03
ARSA	93.0	224	Pg	17:60:07.15	0.44
			Sg	60:18.98	-0.72
MPLH	116.0	131	ePn	17:60:11.67	0.90
			eSn	60:24.75	-2.18
MOA	158.0	270	Pn	17:60:16.54	0.53
			Sn	60:35.96	-0.29
SOKA	165.8	218	Pn	17:60:17.22	0.24
			Sn	60:36.94	-1.03
TREC	173.1	338	ePn	17:60:17.70	-0.19

## Földrengés paraméterek

## Hypocenter Parameters

eSn 60:36.90 -2.69  
 VYHS 196.2 69 ePn 17:60:23.40 2.63  
 eSn 60:47.20 2.48  
 KRLC 248.7 7 ePn 17:60:26.50 -0.81  
 eSn 60:53.50 -2.87  
 KHC 250.9 304 ePn 17:60:29.10 1.51  
 eSn 60:59.10 2.24  
 PRU 272.7 330 ePn 17:60:33.30 2.99  
 eSn 18:01:04.40 2.69  
 DPC 277.5 359 ePn 17:60:33.20 2.29  
 eSn 18:01:06.40 3.63\*

324.

2015-08-15 time: 18:43:13.56 UTC ML= 1.3  
 lat: 47.891N lon: 16.374E h= 3.5 km  
 erh= 3.1km erz= 5.1km  
 nr= 17 gap=108 rms=1.09  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
SOP	26.9	149	ePgD	18:43:19.53			1.12
			eSg	43:23.31			1.12
CONA	38.5	276	Pg	18:43:20.86			0.39
			Sg	43:25.74			-0.12
ZST	64.0	58	ePg	18:43:24.50			-0.51
			eSg	43:33.00			-0.95
MODS	86.0	51	ePg	18:43:28.90			-0.04
			eSg	43:40.50			-0.43
EGYH	89.2	126	ePg	18:43:26.63			-2.87
ARSA	95.8	222	Pg	18:43:30.68			0.00
			Sg	43:42.15			-1.87
MPLH	118.8	132	ePg	18:43:36.23			1.44
			eSg	43:50.75			-0.60
MOA	157.8	268	Pn	18:43:39.98			0.16
			Sn	44:00.57			0.27
KHC	248.4	304	ePn	18:43:52.60			1.48
			eSn	44:22.50			2.09

325.

2015-08-15 time: 21:32:44.59 UTC ML= 1.5  
 lat: 47.892N lon: 16.404E h= 0.3 km  
 erh= 2.9km erz= 4.0km  
 nr= 27 gap= 78 rms=1.36  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
SOP	25.9	153	ePgD	21:32:50.67			1.45
			eSg	32:54.39			1.57
CONA	40.7	276	Pg	21:32:52.07			0.20
			Sg	32:57.12			-0.42
ZST	62.1	57	ePg	21:32:55.30			-0.39
			eSg	33:03.20			-1.14
MODS	84.3	50	ePg	21:33:00.10			0.46
			eSg	33:11.20			-0.18
EGYH	87.4	127	ePg	21:32:57.59			-2.62
			eSg	33:08.84			-3.54
ARSA	97.3	223	Pg	21:33:01.84			-0.13
			Sg	33:13.67			-1.86
SMOL	102.9	48	eSg	21:33:16.70			-0.60
MPLH	117.2	133	ePg	21:33:05.57			0.04
			eSg	33:21.98			0.12
PKSG	159.3	110	ePn	21:33:10.80			-0.65
			eSn	33:29.55			-2.85
MOA	160.0	268	Pn	21:33:11.17			-0.37
			Sn	33:31.03			-1.52
KOGS	160.9	184	ePn	21:33:14.17			2.52
SOKA	170.2	218	Pn	21:33:14.24			1.43
VYHS	192.8	70	ePn	21:33:17.70			2.07
			eSn	33:42.10			2.26
KHC	250.2	303	ePn	21:33:24.10			1.32
			eSn	33:52.80			0.24

PRU 270.2 330 ePn 21:33:28.20 2.93  
 eSn 33:59.10 2.10

326.

2015-08-16 time: 2:18:40.09 UTC ML= 1.3  
 lat: 47.905N lon: 16.399E h= 7.6 km  
 erh= 2.9km erz= 3.4km  
 nr= 18 gap= 72 rms=1.13  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
SOP	27.4	154	ePgD	2:18:46.42			1.25
			eSg	18:50.14			1.01
CONA	40.2	274	Pg	2:18:47.78			0.38
			Sg	18:53.19			0.09
ZST	61.7	58	ePg	2:18:51.20			0.01
			eSg	18:59.20			-0.65
MODS	83.6	51	ePg	2:18:55.60			0.51
			eSg	19:06.90			0.11
EGYH	88.6	128	ePg	2:18:52.38			-3.60
			eSg	19:06.32			-2.05
ARSA	98.1	222	Pg	2:18:57.65			-0.02
			Sg	19:09.38			-2.00
SMOL	102.2	49	eSg	2:19:12.30			-0.37
MPLH	118.5	134	ePn	2:19:02.14			1.20
			eSn	19:17.30			0.10
MOA	159.6	268	Pn	2:19:06.76			0.70
			Sn	19:26.49			0.17
TREC	168.6	336	eSn	2:19:26.70			-1.60

327.

2015-08-18 time: 11:05:37.37 UTC ML= 0.5  
 lat: 47.201N lon: 18.292E h= 0.0 km  
 erh= 1.6km erz= 206km  
 nr= 6 gap=269 rms=0.12  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	18.2	353	ePg	11:05:40.57			-0.05
			eSg	05:42.86			-0.31
PKST	20.5	288	ePg	11:05:41.02			-0.02
			eSg	05:44.02			0.12
PKSG	22.6	19	ePg	11:05:41.42			0.03
			eSg	05:44.70			0.16

328.

2015-08-20 time: 3:09:27.42 UTC ML= 0.9  
 lat: 48.003N lon: 19.346E h= 10.0 km  
 erh= 3.6km erz=16.4km  
 nr= 6 gap=138 rms=0.51  
 Locality: Mohora  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PENC	24.1	191	ePg	3:09:32.03			-0.05
			eSg	09:35.95			0.24
PSZ	42.1	103	ePg	3:09:35.16			0.02
			eSg	09:40.61			-0.55
VYHS	66.4	325	ePg	3:09:40.20			0.79
			eSg	09:47.90			-0.87

329.

2015-08-21 time: 1:32:58.29 UTC ML=-0.1  
 lat: 47.327N lon: 18.299E h= 10.0 km  
 erh= 2.3km erz= 1.4km  
 nr= 6 gap=206 rms=0.14  
 Locality: Söréd  
 Comments:

## Hypocenter Parameters

## Földrengés paraméterek

sta	dist	azm	phase	hr	mn	sec	res
CSKK	5.0	324	ePgD	1:33:00.17			-0.12
			eSg		33:01.71		-0.14
PKSG	10.0	44	ePgC	1:33:00.81			-0.01
			eSg		33:03.04		0.25
PKST	21.4	249	ePg	1:33:02.47			-0.04
			eSg		33:06.08		0.28

330.

2015-08-21 time: 11:24:09.63 UTC ML= 1.8  
 lat: 47.392N lon: 19.926E h= 2.1 km  
 erh= 2.1km erz= 3.1km  
 nr= 19 gap=114 rms=0.78  
 Locality: Portelek  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
BSZH	27.7	112	ePg	11:24:14.08			-0.51
			eSg		24:18.40		-0.06
PKSN	55.1	185	ePg	11:24:20.78			1.30
			eSg		24:27.45		0.28
PSZ	58.6	358	ePg	11:24:19.84			-0.26
			eSg		24:27.58		-0.69
PENC	65.7	312	ePg	11:24:22.38			1.01
			eSg		24:31.81		1.28
PKS7	69.5	237	ePg	11:24:21.90			-0.14
			eSg		24:31.31		-0.41
PKS6	92.2	197	eSg	11:24:37.66			-1.29
			ePg	11:24:29.98			-0.36
PKSG	115.9	270	ePg	11:24:29.98			-0.36
			eSg		24:45.03		-1.46
PKS9	154.0	234	ePn	11:24:36.00			0.41
			eSn		24:54.97		-0.87
PKSM	163.8	217	ePn	11:24:36.58			-0.23
			eSn		24:57.71		-0.31
KOVH	201.2	224	ePn	11:24:44.08			2.60
			eSn		25:08.67		2.35

331.

2015-08-25 time: 4:17:23.68 UTC ML= 0.3  
 lat: 47.298N lon: 18.191E h= 10.0 km  
 erh= 8.9km erz= 4.0km  
 nr= 6 gap=195 rms=0.19  
 Locality: Balinka  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	9.0	36	ePgC	4:17:26.02			-0.06
			eSg		17:27.64		-0.31
PKST	12.6	250	ePgD	4:17:26.64			0.09
			eSg		17:28.79		0.00
PKSG	18.4	55	ePg	4:17:27.36			-0.05
			eSg		17:30.89		0.56

332.

2015-08-26 time: 0:32:24.20 UTC ML= 0.6  
 lat: 47.219N lon: 18.287E h= 0.1 km  
 erh= 1.9km erz= 175km  
 nr= 8 gap=242 rms=0.34  
 Locality: Iszkaszentgyörgy  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	16.2	353	ePg	0:32:26.84			-0.25
			eSg		32:28.58		-0.76
PKST	19.6	283	ePg	0:32:28.08			0.38
			eSg		32:30.84		0.40
PKSG	20.8	22	ePg	0:32:28.18			0.27
			eSg		32:30.91		0.11
MPLH	56.9	265	ePg	0:32:34.23			-0.13
			eSg		32:41.94		-0.34

333.

2015-08-26 time: 7:23:50.84 UTC ML= 1.3  
 lat: 47.432N lon: 18.389E h= 0.0 km  
 erh= 2.0km erz= 240km  
 nr= 5 gap=304 rms=0.11  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	4.5	179	ePg	7:23:51.67			0.03
			eSg		23:52.21		-0.06
CSKK	12.4	232	ePg	7:23:53.05			0.00
			eSg		23:54.99		0.21
PKST	33.0	234	eSg	7:24:01.17			-0.17

334.

2015-08-27 time: 7:18:43.55 UTC ML= 1.2  
 lat: 47.460N lon: 18.385E h= 0.0 km  
 erh= 0.9km erz=99.3km  
 nr= 5 gap=307 rms=0.04  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	7.6	177	ePgC	7:18:44.89			-0.01
			eSg		18:45.95		0.00
CSKK	14.3	221	ePgC	7:18:46.16			0.07
			eSg		18:48.06		-0.02
PKST	34.6	230	ePg	7:18:49.67			-0.06

335.

2015-08-27 time: 9:06:05.43 UTC ML= 1.2  
 lat: 48.377N lon: 19.844E h= 0.0 km  
 erh= 1.8km erz= 489km  
 nr= 6 gap=156 rms=0.28  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
KECS	49.0	76	ePg	9:06:14.20			0.03
			eSg		06:20.70		-0.29
PSZ	51.1	176	ePgD	9:06:14.77			0.21
			eSg		06:21.42		-0.27
VYHS	75.7	280	ePg	9:06:19.30			0.36
			eSg		06:29.00		-0.48

336.

2015-08-27 time: 9:11:19.54 UTC ML= 0.5  
 lat: 47.189N lon: 18.293E h= 0.0 km  
 erh= 1.3km erz= 176km  
 nr= 6 gap=273 rms=0.10  
 Locality: Sárkeszi  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	19.5	353	ePg	9:11:23.05			0.02
			eSg		11:25.72		-0.02
PKST	21.1	292	ePg	9:11:23.20			-0.10
			eSg		11:26.31		0.08
PKSG	23.7	18	ePg	9:11:23.93			0.15
			eSg		11:26.92		-0.16

337.

2015-08-27 time: 13:53:10.33 UTC ML= 1.6  
 lat: 48.312N lon: 19.858E h= 0.0 km  
 erh= 3.0km erz= 863km  
 nr= 6 gap=143 rms=0.50  
 Locality: Slovakia

## Földrengés paraméterek

## Hypocenter Parameters

Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PSZ	43.9	176	ePg	13:53:18.27			0.10
			eSg	53:24.16			-0.12
KECS	50.2	68	ePg	13:53:19.00			-0.31
			eSg	53:26.30			0.00
VYHS	78.3	285	ePg	13:53:25.20			0.88
			eSg	53:34.40			-0.82

338.

2015-08-28 time: 7:30:07.73 UTC ML= 0.9  
 lat: 47.985N lon: 19.923E h= 0.0 km  
 erh= 6.4km erz= \*\*\*km  
 nr= 5 gap=159 rms=0.74  
 Locality: Szuha  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PSZ	7.7	196	ePg	7:30:08.05			-1.05
			eSg	30:11.02			0.85
KECS	69.4	37	eSg	7:30:29.70			-0.10
VYHS	98.6	305	ePg	7:30:26.10			0.76
			eSg	30:38.70			-0.38

339.

2015-08-30 time: 16:37:34.31 UTC ML= 0.7  
 lat: 47.365N lon: 18.249E h= 8.2 km  
 erh= 2.1km erz= 0.4km  
 nr= 6 gap=200 rms=0.05  
 Locality: Mór  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	0.9	104	ePg	16:37:35.88			0.09
			eSg	37:36.90			-0.05
PKSG	11.1	74	ePg	16:37:36.78			0.00
			eSg	37:38.66			-0.04
PKST	20.1	234	ePg	16:37:38.16			-0.03
			eSg	37:41.21			0.00

340.

2015-09-01 time: 7:09:14.12 UTC ML= 0.9  
 lat: 47.475N lon: 18.383E h= 0.0 km  
 erh= 7.5km erz= 939km  
 nr= 6 gap=309 rms=0.58  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	9.2	177	ePgC	7:09:16.21			0.45
			eSg	09:16.71			-0.34
CSKK	15.5	217	ePg	7:09:17.47			0.59
			eSg	09:18.26			-0.78
PKST	35.6	228	ePg	7:09:19.72			-0.76
			eSg	09:25.86			0.42

341.

2015-09-01 time: 8:37:07.74 UTC ML= 0.6  
 lat: 47.282N lon: 18.363E h= 0.0 km  
 erh= 2.7km erz= 408km  
 nr= 6 gap=255 rms=0.24  
 Locality: Magyaralmás  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	11.9	320	ePg	8:37:09.78			-0.09
			eSg	37:11.30			-0.24
PKSG	12.4	10	ePg	8:37:09.86			-0.10
			eSg	37:12.45			0.75

PKST	25.0	264	ePg	8:37:12.20			-0.01
			eSg	37:15.80			0.11

342.

2015-09-01 time: 9:10:35.52 UTC ML= 0.5  
 lat: 47.216N lon: 18.283E h= 0.0 km  
 erh= 3.5km erz= 476km  
 nr= 6 gap=261 rms=0.28  
 Locality: Iszkaszentgyörgy  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	16.4	354	ePg	9:10:38.06			-0.39
			eSg	10:40.72			-0.01
PKST	19.4	284	ePg	9:10:39.28			0.29
			eSg	10:41.70			0.01
PKSG	21.1	23	ePg	9:10:39.11			-0.18
			eSg	10:42.67			0.43

343.

2015-09-06 time: 22:09:28.43 UTC ML= 1.9  
 lat: 47.511N lon: 18.789E h= 10.0 km  
 erh= 1.4km erz= 1.3km  
 nr= 39 gap= 49 rms=0.75  
 Locality: Páty  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
BUD	17.9	100	ePgC	22:09:32.05			-0.04
			eSg	09:34.52			-0.43
PKSG	32.9	246	ePgD	22:09:34.71			0.15
			eSg	09:39.59			0.24
SRO2	40.8	313	ePg	22:09:35.50			-0.42
			eSg	09:41.00			-0.77
CSKK	43.2	248	ePg	22:09:36.43			0.09
			eSg	09:42.88			0.37
PENC	48.3	50	ePg	22:09:36.73			-0.50
			eSg	09:43.94			-0.16
SRO	49.0	313	ePg	22:09:38.00			0.64
			eSg	09:45.30			0.97
DBSH	53.8	132	ePgD	22:09:38.70			0.50
			eSg	09:46.02			0.19
PKS7	58.8	151	ePg	22:09:39.97			0.90
			eSg	09:48.04			0.67
PKST	63.5	244	ePg	22:09:39.56			-0.35
			eSg	09:49.08			0.21
PSZ	94.5	61	ePgD	22:09:45.09			-0.30
			eSg	09:57.58			-1.04
TIH	96.1	225	ePg	22:09:45.13			-0.55
			eSg	09:58.71			-0.42
VYHS	109.3	2	ePn	22:09:47.60			-0.21
			eSn	09:59.50			-3.43
PKS9	109.8	201	ePn	22:09:47.92			0.04
			eSn	10:01.67			-1.38
EGYH	110.4	265	ePn	22:09:45.00			-2.94
			eSn	09:59.23			-3.94*
BSZH	114.0	102	ePn	22:09:48.84			0.45
			eSn	10:02.45			-1.52
PKS6	117.2	150	ePn	22:09:48.98			0.18
			eSn	10:04.55			-0.13
PKSM	144.9	184	ePn	22:09:51.71			-0.54
			eSn	10:07.92			-2.91
ZST	147.4	301	ePn	22:09:54.70			2.14
			eSn	10:13.10			1.71
KOVH	166.7	198	ePn	22:09:54.42			-0.55
			eSn	10:17.69			2.02
LANS	189.1	15	eSn	22:10:24.90			4.26*

## Hypocenter Parameters

## Földrengés paraméterek

344.

2015-09-07 time: 8:43:39.70 UTC ML= 1.3  
 lat: 48.626N lon: 20.748E h= 0.0 km  
 erh= 1.7km erz= 3.5km  
 nr= 11 gap=146 rms=0.40  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
KECS	25.0	231	ePg	8:43:44.00			-0.17
			eSg		43:48.00		0.34
CRVS	60.8	60	ePg	8:43:51.00			0.44
			eSg		43:58.60		-0.43
PSZ	101.0	219	ePg	8:43:57.82			0.08
			eSg		44:10.66		-1.15
LANS	110.5	302	ePg	8:43:59.70			0.26
			eSg		44:14.30		-0.54
KOLS	117.2	73	eSg	8:44:16.50			-0.46
			ePn	8:44:04.70			0.27
eSn		44:21.80				-1.91*	

345.

2015-09-08 time: 9:52:37.19 UTC ML= 0.2  
 lat: 47.199N lon: 18.295E h= 0.0 km  
 erh= 1.8km erz= 245km  
 nr= 6 gap=270 rms=0.15  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	18.4	352	ePg	9:52:40.43			-0.05
			eSg		52:42.96		-0.09
PKST	20.8	289	ePg	9:52:41.12			0.21
			eSg		52:43.66		-0.15
PKSG	22.6	19	ePg	9:52:41.12			-0.11
			eSg		52:44.59		0.20

346.

2015-09-09 time: 9:16:44.74 UTC ML= 0.5  
 lat: 45.842N lon: 18.460E h= 1.2 km  
 erh= 3.1km erz=40.0km  
 nr= 6 gap=269 rms=0.24  
 Locality: Villány  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSV	16.9	288	ePg	9:16:47.60			-0.17
			eSg		16:50.03		-0.10
KOVH	39.1	314	ePg	9:16:52.16			0.44
			eSg		16:56.94		-0.22
PKSM	43.4	19	ePg	9:16:52.35			-0.15
			eSg		16:58.75		0.20

347.

2015-09-09 time: 10:18:56.16 UTC ML= 1.4  
 lat: 48.284N lon: 21.186E h= 11.9 km  
 erh= 4.1km erz= 3.0km  
 nr= 7 gap=199 rms=0.44  
 Locality: Abaújszántó  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
KECS	56.4	293	ePg	10:19:06.10			-0.36
			eSg		19:14.00		-0.49
CRVS	71.7	16	ePg	10:19:09.80			0.65
			eSg		19:19.20		-0.07
PSZ	104.4	247	eP*	10:19:15.04			0.36
			eS*		19:29.33		0.21
KOLS	107.9	48	eSn	10:19:29.30			-0.62

348.

2015-09-11 time: 19:41:53.70 UTC ML= 0.7  
 lat: 47.057N lon: 18.127E h= 10.0 km  
 erh= 4.2km erz= 4.3km  
 nr= 15 gap=129 rms=0.96  
 Locality: Balatonkenese  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKST	23.5	343	ePg	19:41:58.02			-0.24
			eSg		42:01.01		-0.81
TIH	25.0	226	ePg	19:41:57.93			-0.57
			ePg		19:42:06.30		0.02
CSKK	35.5	17	eSg		42:05.15		-0.27
			ePg		19:42:01.01		-0.44
PKSG	42.2	28	ePg	19:42:01.01			-0.44
			eSg		42:07.77		0.28
PKS9	53.5	168	ePgD	19:42:06.43			3.00
			eSg		42:11.62		0.60
MORH	101.6	157	ePg	19:42:11.97			0.04
			eSg		42:25.55		-0.60
PKSM	101.9	157	ePg	19:42:11.96			-0.03
			eSg		42:24.71		-1.54
KOVH	107.7	181	ePn	19:42:13.04			0.15
			eSn		42:26.40		-1.46

349.

2015-09-15 time: 6:35:52.81 UTC ML= 0.9  
 lat: 47.435N lon: 18.428E h= 0.0 km  
 erh= 2.8km erz= 277km  
 nr= 6 gap=333 rms=0.16  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	5.5	211	ePgC	6:35:53.86			0.06
			eSg		35:54.52		-0.05
CSKK	14.9	238	ePgC	6:35:55.23			-0.24
			eSg		35:57.51		-0.05
PKST	35.6	237	ePg	6:35:59.41			0.25
			eSg		36:04.19		0.07

350.

2015-09-15 time: 9:33:17.36 UTC ML= 1.1  
 lat: 47.078N lon: 18.000E h= 0.0 km  
 erh= 5.2km erz= 697km  
 nr= 8 gap=165 rms=0.51  
 Locality: Litér  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	20.3	7	ePg	9:33:20.98			0.00
			eSg		33:23.56		-0.24
TIH	21.4	202	ePg	9:33:21.31			0.12
			eSg		33:24.22		0.05
CSKK	37.3	32	ePg	9:33:23.84			-0.19
			eSg		33:29.77		0.55
PKSG	45.7	40	ePg	9:33:24.79			-0.74
			eSg		33:33.48		1.58

351.

2015-09-15 time: 18:41:36.87 UTC ML= 2.8  
 lat: 45.784N lon: 16.024E h= 5.9 km  
 erh= 1.6km erz= 1.0km  
 nr= 57 gap=157 rms=0.57  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
GCIS	32.2	287	iPgC	18:41:43.09			0.37
			iSg		41:47.13		-0.14



Földrengés paraméterek

Hypocenter Parameters

GOLS	40.0	309	iPgC	18:41:44.12	0.03
CRES	44.4	276	iPg	18:41:45.13	0.27
			eSg	41:51.45	0.35
CESS	48.4	296	iPg	18:41:45.75	0.17
LEGS	57.9	288	iPgC	18:41:47.32	0.06
			iSg	41:54.75	-0.61
DOBS	59.2	313	iPgC	18:41:47.48	-0.01
BOJS	67.8	243	iPgD	18:41:49.05	0.03
PDKS	85.4	291	iPgC	18:41:51.96	-0.20
GROS	85.4	332	ePg	18:41:51.88	-0.28
VISS	92.2	271	iPg	18:41:53.05	-0.31
BEHE	95.9	37	ePg	18:41:54.18	0.16
			eSg	42:08.53	1.13
GBRS	98.7	253	iPg	18:41:54.25	-0.28
VNDS	108.5	289	iPg	18:41:55.60	-0.68
PERS	117.8	324	iPn	18:41:56.94	-0.90
GBAS	124.0	278	iPn	18:41:58.07	-0.55
CEY	124.4	268	iPn	18:41:59.25	0.58
SOKA	125.4	322	Pn	18:41:58.02	-0.77
KNDS	131.2	257	ePn	18:41:59.94	0.42
			iSn	42:16.44	-0.75
MOZS	134.9	295	iPn	18:41:59.98	0.00
OBKA	139.6	305	Pn	18:42:00.89	0.32
CRNS	140.7	284	ePn	18:42:00.76	0.07
			iSn	42:19.16	-0.12
JAVS	152.8	275	iPn	18:42:02.90	0.70
SKDS	158.8	260	iPn	18:42:04.04	1.08
KOVH	164.5	78	ePn	18:42:03.19	-0.48
			eSn	42:21.77	-2.80
ARSA	167.5	347	Pn	18:42:04.06	0.02
			Sn	42:25.67	0.43
GORS	167.5	291	ePn	18:42:04.46	0.41
VOJS	168.1	279	iPn	18:42:04.13	0.02
PKSV	173.5	86	ePn	18:42:04.77	-0.02
			eSn	42:23.48	-3.08*
CADS	183.9	286	iPn	18:42:07.23	1.14
TIH	190.0	49	ePn	18:42:07.48	0.64
			eSn	42:33.36	3.14*
PKS9	195.6	63	ePn	18:42:08.55	1.00
			eSn	42:36.66	5.18*
MYKA	206.5	297	Pn	18:42:09.75	0.84
			Sn	42:38.50	4.60*
EGYH	207.4	29	ePn	18:42:06.62	-2.39
PKSM	208.3	77	ePn	18:42:08.34	-0.78
			eSn	42:37.48	3.20*
MORH	208.6	77	ePn	18:42:08.48	-0.68
			eSn	42:32.03	-2.32
SOP	215.1	11	ePn	18:42:09.03	-0.94
			eSn	42:36.38	0.59
PKST	225.1	43	ePn	18:42:11.11	-0.12
			eSn	42:45.59	7.57*
CONA	238.7	357	Pn	18:42:13.72	0.80
			Sn	42:39.50	-1.54
KBA	251.3	305	Pn	18:42:15.22	0.74
MOA	266.0	330	Pn	18:42:17.40	1.08
			Sn	42:46.39	-0.70
ZST	280.4	17	ePn	18:42:18.60	0.48
			eSn	42:59.50	9.20*
ABTA	291.2	292	Pn	18:42:20.67	1.21
MODS	303.2	18	ePn	18:42:21.00	0.03*
			eSn	42:50.70	-4.66*
SMOL	321.7	19	ePn	18:42:23.10	-0.16*
VYHS	369.2	35	ePn	18:42:29.50	0.31*
			eSn	43:07.00	-2.99*
WTTA	374.7	296	Pn	18:42:31.63	1.75*
WATA	382.2	297	Pn	18:42:31.76	0.95*
SQTA	402.7	293	Pn	18:42:36.13	2.76*
MOTA	415.3	295	Pn	18:42:36.58	1.64*
KHC	415.3	334	ePn	18:42:35.80	0.85*
			eSn	43:17.60	-2.64*
FETA	429.8	289	Pn	18:42:39.03	2.28*
PRU	480.5	347	ePn	18:42:43.30	0.24*
KRLC	480.5	7	ePn	18:42:43.70	0.63*
			eSn	43:31.30	-3.41*
DPC	508.2	3	ePn	18:42:46.50	-0.03*

352.

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2015-09-15 time: 19:09:33.55 UTC ML= 0.8  
lat: 45.861N lon: 18.371E h= 2.4 km  
erh= 3.7km erz=13.4km  
nr= 10 gap=260 rms=0.45  
Locality: Kisharsány  
Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSV	9.7	288	ePgC	19:09:35.34			-0.01
			eSg	09:36.95			0.21
KOVH	32.9	320	ePgD	19:09:39.27			-0.17
			eSg	09:43.27			-0.76
PKSM	44.2	28	ePgD	19:09:41.45			-0.01
			eSg	09:47.34			-0.29
MORH	44.7	28	ePgD	19:09:41.50			-0.05
			eSg	09:47.51			-0.28
PKS9	81.0	355	ePg	19:09:49.21			1.19
			eSg	10:00.88			1.57

353.

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2015-09-16 time: 10:51:00.79 UTC ML= 0.7  
lat: 46.136N lon: 18.028E h= 2.6 km  
erh= 2.3km erz= 4.5km  
nr= 7 gap=292 rms=0.12  
Locality: Hetvehely  
Comments:

sta	dist	azm	phase	hr	mn	sec	res
KOVH	7.7	134	ePgC	10:51:02.12			-0.12
			eSg	51:03.48			0.11
PKSV	32.6	148	ePg	10:51:06.61			-0.01
PKSM	48.1	80	ePgC	10:51:09.44			0.05
			eSg	51:16.25			0.14
MORH	48.4	79	ePg	10:51:09.51			0.07
			eSg	51:15.82			-0.38

354.

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2015-09-16 time: 15:49:37.58 UTC ML= 1.6  
lat: 45.545N lon: 17.249E h= 6.8 km  
erh= 5.0km erz= 1.2km  
nr= 8 gap=344 rms=0.23  
Locality: Croatia  
Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSV	86.9	64	ePg	15:49:53.41			0.27
			eSg	50:04.70			-0.59
KOVH	89.5	48	ePg	15:49:53.46			-0.15
			eSg	50:06.37			0.25
PKSM	131.0	56	ePn	15:50:00.09			0.01
			eSn	50:17.82			0.18
MORH	131.5	55	ePn	15:50:00.01			-0.13
			eSn	50:17.73			-0.01

355.

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2015-09-17 time: 9:22:44.70 UTC ML= 0.4  
lat: 47.192N lon: 18.294E h= 0.0 km  
erh= 3.0km erz= 383km  
nr= 6 gap=272 rms=0.22  
Locality: Sárkeszi  
Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	19.2	352	ePg	9:22:48.14			0.01
			eSg	22:50.27			-0.53
PKST	21.0	291	ePg	9:22:48.35			-0.10
			eSg	22:51.62			0.24
PKSG	23.4	18	ePg	9:22:48.89			0.01

## Hypocenter Parameters

## Földrengés paraméterek

eSg 22:52.43 0.29  
 356.

2015-09-18 time: 5:05:23.33 UTC ML= 0.5  
 lat: 47.288N lon: 18.349E h= 0.0 km  
 erh= 2.2km erz= 339km  
 nr= 6 gap=247 rms=0.20  
 Locality: Magyaralmás  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	10.7	321	ePg	5:05:25.17	-0.07
			eSg	05:26.54	-0.19
PKSG	11.9	15	ePgC	5:05:25.55	0.09
			eSg	05:27.29	0.17
PKST	24.1	262	ePg	5:05:27.37	-0.26
			eSg	05:31.37	0.39

357.

2015-09-18 time: 6:07:20.28 UTC ML= 0.7  
 lat: 47.284N lon: 18.333E h= 0.0 km  
 erh= 1.4km erz= 220km  
 nr= 6 gap=243 rms=0.13  
 Locality: Magyaralmás  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	10.4	328	ePg	6:07:22.21	0.07
			eSg	07:23.50	-0.09
PKSG	12.8	20	ePg	6:07:22.40	-0.16
			eSg	07:24.42	0.08
PKST	22.8	263	ePg	6:07:24.54	0.19
			eSg	07:27.40	-0.13

358.

2015-09-18 time: 8:07:02.12 UTC ML= 1.1  
 lat: 47.104N lon: 18.026E h= 0.0 km  
 erh= 1.3km erz= 453km  
 nr= 14 gap=114 rms=0.39  
 Locality: Királyszentistván  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	17.3	2	ePg	8:07:04.77	-0.43
			eSg	07:07.74	0.13
TIH	24.8	204	ePg	8:07:06.56	0.00
			eSg	07:11.41	1.39
CSKK	33.8	32	ePg	8:07:08.46	0.29
			eSg	07:13.08	0.20
MPLH	37.7	281	ePg	8:07:08.64	-0.21
			eSg	07:13.68	-0.41
PKSG	42.3	41	ePg	8:07:10.09	0.42
MORH	109.5	154	ePg	8:07:21.35	-0.32
			eSg	07:36.44	-0.48
PKSM	109.8	155	ePg	8:07:21.48	-0.25
			eSg	07:35.31	-1.71
KOVH	113.0	177	ePg	8:07:22.51	0.20

359.

2015-09-18 time: 13:05:58.55 UTC ML= 0.2  
 lat: 47.308N lon: 18.328E h= 0.0 km  
 erh= 0.4km erz=69.5km  
 nr= 5 gap=229 rms=0.03  
 Locality: Magyaralmás  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	8.0	320	ePg	13:06:00.01	0.03
			eSg	06:01.07	-0.02
PKSG	10.5	27	ePg	13:06:00.37	-0.05

eSg 06:01.90 0.03  
 PKST 22.9 256 eSg 13:06:05.83 0.01

360.

2015-09-22 time: 6:44:41.99 UTC ML= 0.8  
 lat: 47.435N lon: 18.388E h= 0.0 km  
 erh= 3.8km erz= 437km  
 nr= 5 gap=304 rms=0.20  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	4.7	178	ePgC	6:44:42.86	0.02
			eSg	44:43.46	-0.04
CSKK	12.5	231	ePgC	6:44:44.14	-0.08
			eSg	44:45.76	-0.20
PKST	33.1	234	eSg	6:44:53.09	0.57

361.

2015-09-24 time: 9:48:26.43 UTC ML= 1.4  
 lat: 45.859N lon: 17.272E h= 0.0 km  
 erh= 5.6km erz= 455km  
 nr= 7 gap=341 rms=0.33  
 Locality: Croatia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	69.0	68	ePg	9:48:39.54	0.78
PKSV	76.2	88	ePg	9:48:39.92	-0.11
			eSg	48:50.38	-0.26
PKSM	113.0	70	ePg	9:48:46.39	-0.22
			eSg	49:02.22	-0.14
MORH	113.4	70	ePg	9:48:46.58	-0.10
			eSg	49:02.64	0.17

362.

2015-09-24 time: 17:07:44.49 UTC ML= 0.9  
 lat: 47.182N lon: 18.198E h= 0.0 km  
 erh= 2.0km erz= 4.8km  
 nr= 12 gap=142 rms=0.55  
 Locality: Csőr  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	15.1	305	ePgC	17:07:46.96	-0.22
			eSg	07:49.52	0.24
CSKK	20.7	13	ePg	17:07:47.82	-0.37
			eSg	07:51.13	0.06
PKSG	27.5	32	ePg	17:07:49.17	-0.23
			eSg	07:53.89	0.65
MORH	112.7	162	ePg	17:08:04.96	0.34
			eSg	08:20.09	-0.22
PKSM	113.1	163	ePg	17:08:04.87	0.19
			eSg	08:19.68	-0.75
VYHS	153.5	18	ePn	17:08:12.20	1.53
			eSn	08:29.20	-1.88

363.

2015-09-25 time: 7:02:14.67 UTC ML= 0.6  
 lat: 45.868N lon: 18.413E h= 0.0 km  
 erh= 1.9km erz= 295km  
 nr= 7 gap=256 rms=0.20  
 Locality: Villány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	12.7	280	ePgC	7:02:16.80	-0.14
			eSg	02:18.96	0.25
KOVH	34.5	315	eSg	7:02:25.53	-0.10
PKSM	42.1	25	ePgC	7:02:22.31	0.12

## Földrengés paraméterek

MORH 42.6 25 eSg 02:27.35 -0.70  
 ePgc 7:02:22.36 0.08  
 eSg 02:28.24 0.03

364.

2015-09-25 time: 9:35:12.56 UTC ML= 0.5  
 lat: 46.048N lon: 18.351E h= 0.0 km  
 erh= 4.1km erz= 291km  
 nr= 6 gap=232 rms=0.17  
 Locality: Magyarsarlós  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
KOVH	19.9	283	ePgc	9:35:16.02			-0.10
			eSg	35:18.95			0.05
PKSM	28.9	51	ePg	9:35:17.76			0.04
			eSg	35:21.96			0.21
MORH	29.4	50	ePg	9:35:17.91			0.11
			eSg	35:21.43			-0.46

365.

2015-09-28 time: 9:01:13.49 UTC ML= 1.1  
 lat: 47.096N lon: 17.989E h= 0.0 km  
 erh= 2.5km erz= 844km  
 nr= 13 gap=110 rms=0.70  
 Locality: Litér  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	18.5	11	ePgc	9:01:16.27			-0.52
			eSg	01:19.61			0.25
TIH	22.9	198	ePg	9:01:17.86			0.27
			eSg	01:21.74			0.96
MPLH	35.1	284	ePg	9:01:19.99			0.24
			eSg	01:24.11			-0.52
CSKK	36.2	35	ePgc	9:01:19.95			0.00
			eSg	01:24.39			-0.60
PKSG	44.8	43	ePg	9:01:24.79			3.29
MORH	109.9	153	ePg	9:01:33.02			-0.10
PKSM	110.2	153	ePg	9:01:32.87			-0.30
			eSg	01:47.49			-1.04
KOVH	112.3	176	ePg	9:01:33.40			-0.14

366.

2015-09-28 time: 9:39:56.51 UTC ML= 1.2  
 lat: 47.067N lon: 18.118E h= 0.0 km  
 erh= 3.5km erz= \*\*\*km  
 nr= 13 gap=139 rms=1.01  
 Locality: Papkeszi  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	22.3	343	ePg	9:40:00.41			-0.08
			eSg	40:03.65			0.05
TIH	25.2	223	ePg	9:40:01.45			0.43
			eSg	40:05.85			1.32
CSKK	34.7	18	eSg	9:40:08.88			1.34
MPLH	45.4	285	ePg	9:40:03.65			-0.97
			eSg	40:10.65			-0.29
MORH	102.8	157	ePg	9:40:13.10			-1.77
			eSg	40:30.35			1.16
PKSM	103.1	157	ePg	9:40:14.00			-0.93
			eSg	40:30.16			0.87
KOVH	108.8	181	ePg	9:40:17.20			1.27
			eSg	40:31.15			0.07

## Hypocenter Parameters

367.

2015-09-28 time: 9:59:07.02 UTC ML= 0.9  
 lat: 47.557N lon: 18.497E h= 0.0 km  
 erh= 4.8km erz= 680km  
 nr= 9 gap=190 rms=0.51  
 Locality: Szárliget  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSG	20.1	204	ePgD	9:59:10.58			-0.03
			eSg	59:13.52			0.12
SRO2	24.1	341	ePg	9:59:10.50			-0.83
			eSg	59:14.50			-0.19
CSKK	28.0	220	ePgc	9:59:11.59			-0.44
			eSg	59:16.28			0.35
SRO	31.6	334	ePg	9:59:13.40			0.73
VYHS	107.2	14	ePg	9:59:26.80			0.64
			eSg	59:40.60			-0.49

368.

2015-09-28 time: 10:17:34.27 UTC ML= 1.6  
 lat: 48.534N lon: 19.366E h= 0.0 km  
 erh= 1.8km erz= 621km  
 nr= 9 gap=103 rms=0.47  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
VYHS	39.4	264	ePg	10:17:41.40			0.10
			eSg	17:46.00			-0.79
LANS	69.0	6	ePg	10:17:47.10			0.51
			eSg	17:55.20			-1.00
PSZ	78.9	150	ePg	10:17:48.87			0.50
			eSg	17:59.43			0.07
PENC	82.9	184	eSg	10:18:00.18			-0.45
KECS	83.0	94	ePg	10:17:49.00			-0.09
			eSg	17:59.90			-0.74

369.

2015-09-28 time: 22:14:22.73 UTC ML= 0.7  
 lat: 48.129N lon: 19.833E h= 12.4 km  
 erh= 2.5km erz= 1.2km  
 nr= 5 gap=242 rms=0.06  
 Locality: Zagyvaróna  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PSZ	23.8	169	ePgD	22:14:27.48			-0.05
			eSg	14:31.30			0.03
KECS	62.4	51	ePg	22:14:34.20			0.10
			eSg	14:42.90			-0.06
CRVS	147.9	54	ePn	22:14:46.60			-0.02

370.

2015-09-29 time: 10:02:23.05 UTC ML= 0.2  
 lat: 47.199N lon: 18.305E h= 0.0 km  
 erh= 1.9km erz= 244km  
 nr= 6 gap=271 rms=0.14  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	18.5	350	ePgc	10:02:26.46			0.10
			eSg	02:29.13			0.19
PKST	21.5	288	ePgc	10:02:26.85			-0.05
			eSg	02:29.78			-0.12
PKSG	22.4	17	ePg	10:02:27.11			0.06
			eSg	02:29.79			-0.38

## Hypocenter Parameters

## Földrengés paraméterek

371.

2015-09-29 time: 14:18:38.14 UTC ML= 0.7  
 lat: 47.321N lon: 18.336E h= 10.0 km  
 erh= 4.6km erz= 2.5km  
 nr= 9 gap=142 rms=0.65  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	7.4	310	ePgC	14:18:40.50			0.14
			eSg		18:42.04		-0.06
PKSG	8.9	27	ePgD	14:18:40.43			-0.10
			eSg		18:41.83		-0.57
PKST	23.8	253	ePgC	14:18:42.79			0.03
			eSg		18:46.12		-0.24
PKSM	125.4	169	eSn	14:19:15.45			-0.78
VYHS	135.7	16	ePn	14:19:02.80			1.98
			eSn		19:17.40		-1.11

372.

2015-09-29 time: 22:58:22.22 UTC ML= 0.0  
 lat: 47.328N lon: 18.346E h= 10.0 km  
 erh= 1.8km erz= 1.3km  
 nr= 5 gap=226 rms=0.20  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	7.5	301	ePgD	22:58:24.68			0.23
			eSg		58:26.07		-0.13
PKSG	7.8	26	ePgD	22:58:24.58			0.09
			eSg		58:26.05		-0.21
PKST	24.8	252	eSg	22:58:30.38			-0.33

373.

2015-09-30 time: 2:22:54.65 UTC ML= 0.6  
 lat: 47.291N lon: 18.377E h= 7.4 km  
 erh= 8.3km erz= 9.2km  
 nr= 8 gap=165 rms=0.31  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSG	11.2	5	ePgD	2:22:57.23			0.18
			eSg		22:58.65		-0.27
CSKK	11.9	312	ePgC	2:22:57.29			0.14
			eSg		22:58.82		-0.28
PKST	26.2	262	ePg	2:22:59.53			0.02
			eSg		23:02.91		-0.39
MPLH	64.9	258	eSg	2:23:16.46			1.06
PKSM	121.7	170	eSn	2:23:32.25			-0.25

374.

2015-09-30 time: 6:23:55.91 UTC ML= 1.1  
 lat: 47.260N lon: 18.392E h= 6.3 km  
 erh= 4.5km erz= 4.5km  
 nr= 12 gap=157 rms=0.73  
 Locality: Sárkeresztos  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSG	14.6	360	ePgD	6:23:58.80			0.05
			eSg		24:00.23		-0.74
CSKK	15.2	319	ePgC	6:23:58.88			0.04
			eSg		24:00.33		-0.80
PKST	27.1	270	ePg	6:24:01.18			0.31
			eSg		24:04.52		-0.22
MPLH	65.3	261	eSg	6:24:17.68			0.91
MORH	117.7	171	eSn	6:24:32.21			-0.90
PKSM	118.1	171	eSn	6:24:32.48			-0.71

KOVH 132.2 190 eSn 6:24:37.11 0.79  
 VYHS 141.2 14 ePn 6:24:21.60 1.87  
 eSn 24:37.10 -1.21

375.

2015-10-02 time: 9:20:48.90 UTC ML= 0.4  
 lat: 47.179N lon: 18.315E h= 0.0 km  
 erh= 3.3km erz= 366km  
 nr= 5 gap=279 rms=0.18  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	20.9	349	ePgC	9:20:52.57			-0.07
			eSg		20:55.93		0.38
PKST	23.0	293	ePg	9:20:53.10			0.08
			eSg		20:56.20		-0.03
PKSG	24.4	14	eSg	9:20:56.37			-0.29

376.

2015-10-02 time: 10:17:12.56 UTC ML= 1.6  
 lat: 48.365N lon: 19.840E h= 0.0 km  
 erh= 1.9km erz= 640km  
 nr= 8 gap=106 rms=0.46  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
KECS	49.5	75	ePg	10:17:21.10			-0.31
			eSg		17:27.80		-0.51
PSZ	49.8	175	ePgC	10:17:21.66			0.21
			eSg		17:28.48		0.09
VYHS	75.7	281	ePg	10:17:26.30			0.22
			eSg		17:35.90		-0.72
LANS	91.6	343	ePg	10:17:29.80			0.89
			eSg		17:41.30		-0.37

377.

2015-10-02 time: 13:33:22.43 UTC ML= 0.8  
 lat: 46.109N lon: 18.029E h= 0.0 km  
 erh= 4.8km erz= 655km  
 nr= 7 gap=291 rms=0.43  
 Locality: Bükkösd  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
KOVH	5.9	113	ePgC	13:33:22.68			-0.81
			eSg		33:24.27		-0.05
PKSV	30.0	145	eSg	13:33:32.50			0.54
PKSM	48.7	76	ePgC	13:33:31.42			0.30
			eSg		33:37.86		-0.04
MORH	49.0	76	ePgC	13:33:31.47			0.29
			eSg		33:37.78		-0.22

378.

2015-10-06 time: 9:50:30.91 UTC ML= 0.6  
 lat: 47.140N lon: 18.319E h= 0.0 km  
 erh= 1.8km erz= 241km  
 nr= 6 gap=290 rms=0.15  
 Locality: Úrhida  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	25.1	350	ePg	9:50:35.38			-0.02
			eSg		50:39.14		0.24
PKST	25.3	301	ePg	9:50:35.45			0.03
			eSg		50:38.71		-0.23
PKSG	28.5	11	ePg	9:50:36.11			0.12
			eSg		50:39.76		-0.20

## Földrengés paraméterek

## Hypocenter Parameters

379.

2015-10-06 time: 11:47:10.13 UTC ML= 0.7  
 lat: 45.970N lon: 18.089E h= 0.0 km  
 erh= 4.5km erz= 574km  
 nr= 6 gap=306 rms=0.61  
 Locality: Baksa  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	13.2	4	ePg	11:47:12.32	-0.16
			eSg	47:13.72	-0.60
PKSM	50.4	58	ePg	11:47:19.71	0.57
			eSg	47:25.97	-0.20
MORH	50.9	58	ePg	11:47:19.98	0.76
			eSg	47:25.27	-1.03

380.

2015-10-07 time: 8:58:46.72 UTC ML= 1.6  
 lat: 48.622N lon: 20.732E h= 0.0 km  
 erh= 0.8km erz= 1.7km  
 nr= 10 gap=145 rms=0.20  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	23.9	230	ePg	8:58:50.80	-0.18
			eSg	58:54.60	0.29
CRVS	62.0	60	ePg	8:58:57.90	0.10
			eSg	59:06.00	-0.43
PSZ	99.9	218	ePg	8:59:04.61	0.04
			eSg	59:18.12	-0.37
LANS	109.8	302	ePg	8:59:06.40	0.08
			eSg	59:21.40	-0.21
KOLS	118.4	73	eSg	8:59:24.30	-0.07
VYHS	140.7	264	ePn	8:59:11.60	0.31
			eSn	59:29.10	-1.36*

381.

2015-10-08 time: 9:18:28.73 UTC ML= 1.6  
 lat: 48.642N lon: 20.764E h= 0.0 km  
 erh= 2.3km erz= 3.4km  
 nr= 11 gap=145 rms=0.52  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	27.1	229	ePg	9:18:33.00	-0.57
			eSg	18:37.60	0.26
CRVS	58.9	61	ePg	9:18:40.00	0.76
			eSg	18:46.80	-0.64
PSZ	103.1	219	ePg	9:18:47.52	0.37
			eSg	18:59.63	-1.88
LANS	110.6	301	ePg	9:18:48.60	0.11
			eSg	19:03.80	-0.10
KOLS	115.5	74	eSg	9:19:04.80	-0.65
VYHS	143.2	263	ePn	9:18:53.80	0.17
			eSn	19:12.80	-0.24

382.

2015-10-08 time: 11:21:24.71 UTC ML= 0.9  
 lat: 45.732N lon: 18.187E h= 14.3 km  
 erh= 0.5km erz= 0.8km  
 nr= 7 gap=317 rms=0.03  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSV	18.1	16	ePg	11:21:28.82	-0.02
KOVH	40.2	350	ePg	11:21:32.31	-0.02
			eSg	21:38.31	0.04

PKSM	63.9	33	ePgD	11:21:36.46	0.05
			eSg	21:45.55	0.01
MORH	64.4	33	ePgD	11:21:36.46	-0.03
			eSg	21:45.65	-0.04

383.

2015-10-08 time: 12:44:43.56 UTC ML= 1.4  
 lat: 48.539N lon: 19.395E h= 0.0 km  
 erh= 3.6km erz= \*\*\*km  
 nr= 7 gap=111 rms=0.76  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
VYHS	41.6	263	ePg	12:44:51.10	0.12
			eSg	44:56.00	-0.77
LANS	68.2	5	ePg	12:44:56.30	0.55
			eSg	45:04.70	-0.55
PSZ	78.4	152	ePcC	12:44:58.63	1.08
			eSg	45:07.45	-1.02
KECS	80.8	94	eSg	12:45:08.50	-0.76

384.

2015-10-09 time: 7:14:45.73 UTC ML= 1.6  
 lat: 48.399N lon: 19.101E h= 0.0 km  
 erh= 2.7km erz= 6.7km  
 nr= 8 gap=100 rms=0.96  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
VYHS	22.3	298	ePg	7:14:50.10	0.40
			eSg	14:53.40	0.60
PENC	69.0	169	eSg	7:15:08.26	0.61
PSZ	79.6	132	ePg	7:14:59.29	-0.66
			eSg	15:12.06	1.02
LANS	87.8	18	ePg	7:15:01.80	0.39
KECS	102.9	85	eSg	7:15:17.10	-1.33
MODS	135.1	269	eSn	7:15:25.10	-3.13

385.

2015-10-13 time: 6:58:13.53 UTC ML= 1.0  
 lat: 47.428N lon: 18.387E h= 0.0 km  
 erh= 1.9km erz= 209km  
 nr= 5 gap=302 rms=0.10  
 Locality: Gánt  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	4.1	176	ePcC	6:58:14.20	-0.05
			eSg	58:14.80	-0.02
CSKK	12.0	233	ePg	6:58:15.58	-0.09
			eSg	58:17.34	0.00
PKST	32.6	235	ePg	6:58:19.55	0.20

386.

2015-10-13 time: 20:30:56.73 UTC ML= 1.5  
 lat: 46.148N lon: 16.642E h= 10.0 km  
 erh= 2.2km erz= 1.9km  
 nr= 22 gap=132 rms=0.80  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
BEHE	37.3	16	ePg	20:31:03.71	0.09
			eSg	31:08.80	-0.19
KOGS	45.0	318	ePg	20:31:05.02	0.06
			eSg	31:10.23	-1.15
PTJ	59.7	243	eSg	20:31:15.62	-0.35
ZAG	61.5	235	eSg	20:31:17.30	0.78

**Hypocenter Parameters**

**Földrengés paraméterek**

CRES 98.6 249 ePg 20:31:14.50 0.08  
 eSg 31:26.30 -1.92  
 KOVH 112.9 93 ePn 20:31:17.07 0.51  
 eSn 31:30.98 -1.05  
 PKSV 128.0 103 eSn 20:31:34.37 -1.01  
 SOKA 137.1 295 Pn 20:31:19.53 -0.04  
 Sn 31:36.92 -0.47  
 ARSA 149.5 325 Pn 20:31:21.87 0.75  
 Sn 31:38.75 -1.40  
 PKSM 154.5 87 ePn 20:31:21.54 -0.21  
 eSn 31:42.91 1.64  
 MORH 154.8 87 ePn 20:31:21.55 -0.23  
 eSn 31:42.90 1.58  
 OBKA 166.1 284 Pn 20:31:25.16 1.96  
 Sn 31:44.39 0.55  
 MOA 261.6 316 Pn 20:31:35.66 0.55

387.

2015-10-17 time: 11:29:10.10 UTC ML= 2.1  
 lat: 48.642N lon: 20.149E h= 0.9 km  
 erh= 1.9km erz= 2.7km  
 nr= 19 gap= 56 rms=0.80  
 Locality: Slovakia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
KECS	30.5	125	ePg	11:29:15.40	-0.15
			eSg	29:21.30	1.49
PSZ	82.7	193	ePg	11:29:25.03	0.17
			eSg	29:35.54	-0.84
VYHS	98.2	260	ePg	11:29:27.20	-0.45
CRVS	100.7	73	ePg	11:29:27.90	-0.19
			eSg	29:40.70	-1.42
PENC	114.5	214	ePg	11:29:30.39	-0.16
			eSg	29:45.73	-0.78
STHS	117.6	43	ePg	11:29:30.50	-0.60
			eSg	29:45.50	-1.99
KOLS	159.5	78	ePn	11:29:39.20	2.30
			eSn	29:58.50	0.70
OJC	177.3	352	ePn	11:29:40.30	1.18
PKSG	191.1	223	ePn	11:29:41.14	0.29
OKC	197.3	312	ePn	11:29:43.40	1.78
			eSn	30:06.80	0.60
MODS	214.3	262	ePn	11:29:43.80	0.07
DRGR	281.6	137	ePn	11:29:52.30	0.17

388.

2015-10-17 time: 16:56:40.23 UTC ML= 0.9  
 lat: 45.727N lon: 18.122E h= 10.0 km  
 erh= 8.6km erz=16.7km  
 nr= 8 gap=321 rms=0.79  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSV	20.6	30	ePgD	16:56:44.15	-0.16
			eSg	56:51.76	4.26
KOVH	40.2	358	ePgD	16:56:47.57	-0.05
			eSg	56:53.75	0.37
PKSM	67.2	37	ePg	16:56:52.18	-0.19
			eSg	57:00.91	-0.93
MORH	67.7	37	ePgD	16:56:53.17	0.72
			eSg	57:00.96	-1.03

389.

2015-10-20 time: 13:07:33.94 UTC ML= 1.9  
 lat: 46.979N lon: 19.309E h= 10.0 km  
 erh= 1.7km erz= 2.2km  
 nr= 26 gap= 53 rms=0.82  
 Locality: Kunadacs  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKS7	13.6	304	ePg	13:07:37.69	0.73
			eSg	07:40.48	1.17
DBSH	23.4	2	eSg	13:07:42.23	0.20
PKSN	43.5	102	ePg	13:07:41.55	-0.35
			eSg	07:48.25	0.14
PKS6	46.4	155	ePgC	13:07:42.41	-0.01
			eSg	07:48.97	-0.06
PKS2	54.6	188	ePg	13:07:44.30	0.45
			eSg	07:52.15	0.57
BSZH	81.0	64	ePg	13:07:48.37	-0.14
PKSG	83.4	303	ePg	13:07:50.13	1.19
			eSg	07:59.86	-0.78
PKS9	89.9	241	ePg	13:07:51.32	1.22
			eSg	08:02.78	0.08
CSKK	90.3	298	eSg	13:08:01.72	-1.09
PENC	90.3	359	ePg	13:07:50.22	0.06
			eSg	08:02.02	-0.80
PKSM	99.4	211	ePg	13:07:50.89	-0.89
			eSg	08:04.16	-1.54
PKST	101.6	288	ePg	13:07:51.43	-0.75
			eSg	08:05.34	-1.06
TIH	108.2	265	eSn	13:08:08.72	0.53
PSZ	113.4	23	ePn	13:07:53.16	-0.68
			eSn	08:06.86	-2.50
VYHS	172.2	348	ePn	13:08:05.00	3.84
			eSn	08:25.00	2.60

390.

2015-10-21 time: 8:38:18.65 UTC ML= 0.5  
 lat: 46.171N lon: 18.308E h= 0.0 km  
 erh= 1.5km erz= 295km  
 nr= 7 gap=199 rms=0.19  
 Locality: Zobákpusztá  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	18.5	240	ePg	8:38:22.08	0.13
			eSg	38:24.31	-0.22
PKSM	26.1	80	ePg	8:38:23.33	0.01
			eSg	38:26.44	-0.52
MORH	26.4	79	ePg	8:38:23.41	0.04
PKSV	31.7	188	eSg	38:27.30	0.25
			eSg	8:38:28.74	0.02

391.

2015-10-21 time: 9:11:15.48 UTC ML= 0.3  
 lat: 47.167N lon: 18.310E h= 0.0 km  
 erh= 2.8km erz= 387km  
 nr= 6 gap=282 rms=0.23  
 Locality: Sárkeszi  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	22.1	350	ePg	9:11:18.94	-0.48
			eSg	11:22.36	-0.13
PKST	23.2	296	ePg	9:11:19.77	0.14
			eSg	11:22.91	0.05
PKSG	25.7	14	ePgC	9:11:20.25	0.19
			eSg	11:23.73	0.09

392.

2015-10-21 time: 11:57:42.65 UTC ML= 1.9  
 lat: 48.542N lon: 20.858E h= 0.0 km  
 erh= 3.3km erz= 4.4km  
 nr= 9 gap=159 rms=0.77  
 Locality: Hidvégárdó  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
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## Földrengés paraméterek

## Hypocenter Parameters

KECS 28.3 257 ePg 11:57:47.70 -0.01  
 eSg 57:51.60 -0.06  
 PSZ 99.7 226 ePg 11:58:01.07 0.61  
 eSg 58:14.15 -0.20  
 STHS 101.2 16 ePg 11:58:01.40 0.67  
 eSg 58:13.40 -1.42  
 KOLS 112.8 67 eSg 11:58:19.30 0.81  
 VYHS 149.5 268 ePn 11:58:08.10 -0.23  
 eSn 58:25.90 -2.45

393.

2015-10-21 time: 14:29:48.86 UTC ML= 1.2  
 lat: 47.091N lon: 18.069E h= 0.0 km  
 erh= 2.3km erz= 661km  
 nr= 9 gap=164 rms=0.51  
 Locality: Papkeszi  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKST	18.9	352	ePg	14:29:52.05			-0.18
			eSg	29:55.38			0.52
TIH	25.1	212	eSg	14:29:57.49			0.65
MPLH	41.1	282	ePg	14:29:55.43			-0.77
			eSg	30:02.08			0.15
PKSM	107.1	156	ePg	14:30:08.40			0.41
			eSg	30:22.91			0.00
KOVH	111.5	179	ePg	14:30:08.89			0.12
			eSg	30:22.83			-1.47

394.

2015-10-21 time: 19:31:34.43 UTC ML= 0.8  
 lat: 47.291N lon: 17.571E h= 1.5 km  
 erh= 1.9km erz= 4.8km  
 nr= 9 gap=132 rms=0.47  
 Locality: Nagytevel  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
MPLH	13.6	190	ePg	19:31:37.10			0.23
			eSg	31:38.77			-0.01
EGYH	22.9	308	ePg	19:31:37.34			-1.18
			eSg	31:42.09			0.38
TIH	49.9	151	ePg	19:31:43.41			0.08
			eSg	31:49.58			-0.70
PKSG	63.0	80	ePgD	19:31:46.11			0.44
			eSg	31:54.53			0.08
PKSM	145.2	146	ePn	19:31:59.46			0.09

395.

2015-10-23 time: 10:03:45.42 UTC ML= 1.8  
 lat: 48.548N lon: 19.380E h= 0.0 km  
 erh= 5.9km erz= \*\*\*km  
 nr= 8 gap=193 rms=1.11  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
VYHS	40.6	262	ePg	10:03:52.50			-0.17
			eSg	03:57.20			-1.12
PSZ	79.8	151	ePg	10:04:00.23			0.57
			eSg	04:09.55			-1.22
KECS	82.0	95	ePg	10:04:00.20			0.13
			eSg	04:10.70			-0.79
PENC	84.5	185	ePg	10:04:03.13			2.62
			eSg	04:11.69			-0.59

396.

2015-10-24 time: 18:52:35.87 UTC ML= 1.1  
 lat: 46.945N lon: 18.125E h= 12.4 km  
 erh= 1.2km erz= 1.2km  
 nr= 19 gap= 99 rms=0.37  
 Locality: Balatonvilágos  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
TIH	18.3	254	ePgD	18:52:39.70			-0.12
			eSg	52:42.20			-0.71
PKST	35.6	349	eSg	18:52:47.78			-0.07
PKS9	41.5	164	ePg	18:52:44.28			0.67
			eSg	52:49.89			0.25
MPLH	51.0	299	ePg	18:52:45.48			0.23
PKSG	53.6	22	ePgD	18:52:45.66			-0.04
			eSg	52:52.80			-0.57
PKB4	61.9	144	ePg	18:52:47.30			0.16
			eSg	52:55.20			-0.74
MORH	90.3	154	ePg	18:52:52.31			0.16
			eSg	53:03.63			-1.22
PKSM	90.6	154	ePg	18:52:52.12			-0.08
			eSg	53:03.09			-1.85*
KOVH	95.2	181	eP*	18:52:53.19			0.24
			eS*	53:04.55			-1.71
PKS2	97.3	121	eP*	18:52:53.37			0.12
			eS*	53:06.87			0.06
PKSV	117.8	175	eSn	18:53:11.33			-0.39

397.

2015-10-25 time: 6:46:03.68 UTC ML= 0.7  
 lat: 47.084N lon: 17.739E h= 10.0 km  
 erh= 9.1km erz=10.8km  
 nr= 7 gap=247 rms=0.42  
 Locality: Szentgál  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
MPLH	17.9	302	ePgD	6:46:07.43			0.08
			eSg	46:09.81			-0.40
PKST	29.7	49	ePg	6:46:09.87			0.59
			eSg	46:13.96			0.32
CSKK	50.3	52	ePg	6:46:12.41			-0.42
PKSG	60.1	55	ePg	6:46:14.80			0.24
			eSg	46:22.25			-0.79

398.

2015-10-26 time: 11:49:04.21 UTC ML= 2.1  
 lat: 47.786N lon: 16.145E h= 3.5 km  
 erh= 2.9km erz= 2.9km  
 nr= 31 gap=103 rms=1.31  
 Locality: Austria  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CONA	26.5	307	Pg	11:49:09.80			0.82
			Sg	49:13.83			1.13
SOP	33.0	110	ePgC	11:49:10.50			0.35
			eSg	49:14.63			-0.14
ARSA	75.7	218	Pg	11:49:17.33			-0.42
			Sg	49:26.20			-2.11
ZST	84.8	57	ePg	11:49:18.80			-0.57
			eSg	49:29.20			-1.99
MODS	106.7	52	ePg	11:49:21.60			-1.68
			eSg	49:35.40			-2.76
SMOL	125.2	50	ePn	11:49:27.60			1.19
			eSn	49:42.50			-1.22
MOA	140.9	273	Pn	11:49:28.60			0.24
			Sn	49:46.62			-0.58
KOGS	148.9	177	ePn	11:49:31.28			1.92
			eSn	49:44.48			-4.50

## Hypocenter Parameters

SOKA	149.2	214	Pn	11:49:29.32	-0.08
			Sn	49:46.69	-2.36
PKST	153.9	112	ePn	11:49:31.25	1.27
			eSn	49:47.93	-2.15
BEHE	153.9	162	ePn	11:49:32.38	2.40
			eSn	49:49.11	-0.98
SRO	162.5	89	ePn	11:49:32.70	1.65
OBKA	186.5	220	Pn	11:49:34.84	0.79
			Sn	49:56.71	-0.62
VYHS	215.2	69	ePn	11:49:37.00	-0.63
			eSn	50:01.10	-2.60
KBA	225.4	250	Pn	11:49:39.44	0.54
			Sn	50:05.09	-0.87
MYKA	229.1	236	Pn	11:49:39.74	0.38
			Sn	50:11.91	5.13*
WTTA	344.5	260	Pn	11:49:51.89	-1.86*
			Sn	50:29.30	-3.08*
SQTA	377.2	260	Pn	11:49:58.14	0.32*
			Sn	50:39.88	0.24*
MOTA	382.5	263	Pn	11:49:59.48	0.99*
			Sn	50:58.00	17.17*
RETA	405.9	265	Pn	11:50:01.97	0.57*
			Sn	50:43.42	-2.59*
DAVA	474.9	263	Pn	11:50:09.00	-1.01*

399.

2015-10-27 time: 10:42:14.09 UTC ML= 0.9  
 lat: 47.300N lon: 18.416E h= 0.0 km  
 erh= 4.7km erz= 669km  
 nr= 6 gap=272 rms=0.39  
 Locality: Zámoly  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	10.4	349	ePg	10:42:15.42	-0.53
			eSg	42:17.43	0.03
CSKK	13.7	301	ePg	10:42:17.15	0.61
			eSg	42:18.56	0.10
PKST	29.3	261	ePg	10:42:19.45	0.13
			eSg	42:22.98	-0.42

400.

2015-10-27 time: 12:04:45.96 UTC ML= 1.3  
 lat: 47.870N lon: 19.411E h= 0.0 km  
 erh= 4.8km erz= \*\*\*km  
 nr= 6 gap=146 rms=0.81  
 Locality: Bercel  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	13.2	228	ePg	12:04:47.81	-0.50
			eSg	04:51.02	0.88
PSZ	36.5	82	ePg	12:04:52.20	-0.28
			eSg	04:57.75	0.18
VYHS	81.5	328	ePg	12:05:01.50	1.00
			eSg	05:10.30	-1.55

401.

2015-10-28 time: 4:37:14.88 UTC ML= 1.1  
 lat: 45.818N lon: 18.199E h= 11.9 km  
 erh= 1.7km erz= 1.2km  
 nr= 10 gap=308 rms=0.19  
 Locality: Drávaszabolcs  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSV	8.9	28	ePg	4:37:17.37	-0.15
			eSg	37:19.82	0.24
KOVH	31.0	346	ePgD	4:37:20.73	-0.08
			eSg	37:25.14	-0.30
PKSM	55.6	38	ePgD	4:37:25.12	0.10

## Földregés paraméterek

			eSg	37:32.79	-0.15
MORH	56.1	38	ePgD	4:37:25.18	0.07
			eSg	37:32.95	-0.14
PKS9	85.7	4	ePg	4:37:30.52	0.19
			eSg	37:44.04	1.66*

402.

2015-10-28 time: 10:14:17.08 UTC ML= 0.5  
 lat: 47.192N lon: 18.282E h= 0.0 km  
 erh= 1.2km erz= 108km  
 nr= 5 gap=271 rms=0.05  
 Locality: Sárkeszi  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	19.1	355	ePg	10:14:20.46	-0.03
PKST	20.2	292	ePg	10:14:20.75	0.06
			eSg	14:23.46	-0.04
PKSG	23.7	20	ePg	10:14:21.26	-0.04
			eSg	14:24.66	0.06

403.

2015-10-28 time: 10:44:29.29 UTC ML= 2.2  
 lat: 45.906N lon: 18.894E h= 10.0 km  
 erh= 1.9km erz= 3.6km  
 nr= 14 gap=128 rms=0.35  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSM	39.2	330	ePgC	10:44:36.70	0.18
			eSg	44:41.51	-0.65
MORH	39.5	331	ePgC	10:44:36.74	0.17
			eSg	44:41.31	-0.93
PKSV	49.8	268	ePgC	10:44:38.70	0.33
			eSg	44:44.75	-0.70
KOVH	64.8	288	ePg	10:44:41.12	0.13
			eSg	44:48.53	-1.59*
PKB5	77.6	351	ePg	10:44:42.90	-0.36
PKS9	89.3	328	ePg	10:44:45.53	0.19
			eSg	44:57.08	-0.78
PKS6	92.9	34	ePg	10:44:46.20	0.23
			eSg	44:59.23	0.25
FRGS	111.6	140	ePn	10:44:48.70	-0.27

404.

2015-10-28 time: 13:42:21.69 UTC ML= 1.2  
 lat: 45.642N lon: 18.073E h= 10.0 km  
 erh= 4.4km erz= 9.1km  
 nr= 8 gap=328 rms=0.32  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSV	30.8	27	ePg	13:42:27.70	0.23
			eSg	42:31.84	-0.14
KOVH	49.7	2	ePg	13:42:31.07	0.32
			eSg	42:37.36	-0.45
PKSM	77.2	35	ePg	13:42:35.28	-0.32
			eSg	42:47.09	0.65
MORH	77.7	35	ePg	13:42:35.46	-0.22
			eSg	42:46.61	0.01

405.

2015-10-31 time: 21:46:15.14 UTC ML= 0.1  
 lat: 47.271N lon: 18.376E h= 0.4 km  
 erh= 0.6km erz= 23.5km  
 nr= 5 gap=262 rms=0.19  
 Locality: Sárkeresztés



## Földrengés paraméterek

## Hypocenter Parameters

Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	13.5	320	ePg	21:46:17.74	0.19
			eSg	46:19.24	-0.18
PKSG	13.5	5	ePg	21:46:17.70	0.15
			eSg	46:19.11	-0.32
PKST	25.9	267	eSg	21:46:23.34	-0.03

406.

2015-11-03 time: 11:48:15.94 UTC ML= 2.5  
 lat: 47.361N lon: 18.370E h= 11.8 km  
 erh= 1.9km erz= 1.4km  
 nr= 58 gap= 38 rms=1.28  
 Locality: Gánt  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	3.7	25	ePg	11:48:17.54	-0.61
			eSg	48:18.64	-1.24
CSKK	8.2	271	iPgC	11:48:18.44	-0.07
			eSg	48:20.00	-0.51
PKST	27.8	246	ePgD	11:48:21.23	-0.10
			eSg	48:25.61	0.08
SRO2	44.7	2	ePg	11:48:26.40	2.21
			eSg	48:28.80	-1.82
SRO	50.4	355	ePg	11:48:26.50	1.31
			eSg	48:32.00	-0.40
BUD	51.2	75	ePg	11:48:25.10	-0.22
			eSg	48:31.03	-1.61
TIH	62.8	215	ePg	11:48:27.19	-0.15
			eSg	48:36.83	0.60
MPLH	66.3	251	ePg	11:48:28.25	0.28
			eSg	48:38.32	0.97
PKS7	69.4	120	ePg	11:48:29.01	0.51
			eSg	48:37.65	-0.66
PENC	83.6	55	ePg	11:48:29.62	-1.39
			eSg	48:42.06	-0.71
PKS9	86.4	185	ePg	11:48:32.10	0.60
			eSg	48:43.16	-0.48
PKS6	124.2	133	ePn	11:48:37.94	0.99
			eSn	48:53.74	0.40
PKSN	124.8	114	eSn	11:48:54.52	1.05
MORH	129.1	171	ePn	11:48:37.36	-0.19
			eSn	48:52.05	-2.37
PKSM	129.5	171	ePn	11:48:37.39	-0.22
			eSn	48:52.09	-2.41
PSZ	130.3	62	ePn	11:48:37.54	-0.16
			eSn	48:53.41	-1.27
VYHS	130.7	15	ePn	11:48:37.80	0.04
			eSn	48:53.00	-1.78
ZST	132.8	314	ePn	11:48:38.00	-0.02
			eSn	48:53.50	-1.75
MODS	139.1	324	ePn	11:48:37.70	-1.11
			eSn	48:53.80	-2.85
SOP	141.0	285	ePn	11:48:39.84	0.79
			eSn	48:56.50	-0.57
KOVH	143.0	188	ePn	11:48:39.19	-0.10
			eSn	48:56.88	-0.63
BSZH	143.6	93	eSn	11:48:59.46	1.82
SMOL	146.2	331	eSn	11:48:56.60	-1.61
BEHE	156.7	231	ePn	11:48:45.42	4.42
PKSV	164.0	183	ePn	11:48:38.37	-3.54
			eSn	48:59.21	-2.95
IZAB	167.6	37	ePn	11:48:42.80	0.44
			eSn	49:03.70	0.73
KOGS	190.7	238	ePn	11:48:50.23	4.98
			eSn	49:13.15	5.04
CONA	198.7	288	Pn	11:48:46.42	0.18
			Sn	49:09.35	-0.53
KECS	201.4	52	eSn	11:49:15.30	4.82
LANS	215.0	22	ePn	11:48:51.90	3.63
			eSn	49:19.30	5.81*
ARSA	215.6	267	Pn	11:48:48.97	0.62

	Sn				
SOKA	264.8	253	Sn	11:49:24.45	-0.10
DPC	364.8	336	eSn	11:49:44.60	-2.13*
KBA	381.9	265	Pn	11:49:10.17	1.09*
			Sn	49:51.58	1.04*
PRU	406.0	316	eSn	11:49:53.50	-2.38*
KHC	406.7	299	ePn	11:49:09.30	-2.87*
			eSn	49:53.70	-2.33*

407.

2015-11-03 time: 12:11:59.38 UTC ML= 0.7  
 lat: 47.321N lon: 18.431E h= 0.4 km  
 erh= 3.6km erz=70.2km  
 nr= 5 gap=278 rms=0.08  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	8.4	339	ePg	12:12:00.94	0.05
			eSg	12:01.99	-0.07
CSKK	13.7	290	ePg	12:12:01.80	-0.03
			eSg	12:03.86	0.13
PKST	30.8	257	eSg	12:12:09.07	-0.09

408.

2015-11-03 time: 12:24:21.07 UTC ML= 0.8  
 lat: 47.408N lon: 18.403E h= 11.3 km  
 erh= 9.3km erz= 3.2km  
 nr= 7 gap=193 rms=0.39  
 Locality: Gánt  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	2.0	208	ePgC	12:24:23.36	0.24
			eSg	24:24.38	-0.34
CSKK	11.9	245	ePgD	12:24:24.22	0.22
			eSg	24:26.18	-0.10
PKST	32.4	239	ePg	12:24:27.36	0.16
			eSg	24:30.39	-1.60
VYHS	125.0	15	eSn	12:24:58.60	-0.16

409.

2015-11-03 time: 13:02:23.98 UTC ML= 3.2  
 lat: 48.791N lon: 19.414E h= 0.4 km  
 erh= 5.0km erz= 3.7km  
 nr= 28 gap=146 rms=1.40  
 Locality: Slovakia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PSZ	103.4	160	ePgC	13:02:41.59	-0.85
			eSg	02:53.77	-3.06
PENC	111.7	185	ePgD	13:02:43.02	-0.90
			eSg	02:56.65	-2.83
OKC	148.5	322	ePn	13:02:48.90	-0.56
			eSn	03:07.30	-2.04
PKSG	173.3	206	ePn	13:02:53.27	0.71
			eSn	03:14.63	-0.22
MORC	174.8	309	PnC	13:02:52.66	-0.10
BSZH	177.6	159	ePn	13:02:54.36	1.26
			eSn	03:16.65	0.84
CSKK	180.6	208	ePn	13:02:54.27	0.80
			eSn	03:15.40	-1.07
PKS7	194.8	186	ePn	13:02:58.93	3.69
			eSn	03:21.91	2.28
PKST	199.0	211	ePnD	13:02:56.36	0.59
PKSN	213.3	171	eSn	13:03:27.32	3.59
VRAC	214.1	286	PnD	13:02:56.74	-0.91
MPLH	228.2	218	ePn	13:03:01.34	1.93
KRLC	238.5	307	ePn	13:03:01.60	0.91
			eSn	03:30.90	1.57

## Hypocenter Parameters

TIH	239.1	208	ePn	13:03:01.33	0.56
TRPA	242.5	108	ePn	13:02:59.56	-1.63
			eSn	03:31.05	0.83
DPC	283.0	308	ePn	13:03:06.30	0.05
			eSn	03:44.30	5.09*
MORH	292.1	191	PnC	13:03:06.18	-1.20
PKSM	292.6	191	ePn	13:03:06.56	-0.88
UPC	311.2	308	ePn	13:03:09.90	0.15*
			eSn	03:52.80	7.35*
SIRR	327.6	149	PnD	13:03:10.70	-1.10*
BMR	327.8	112	PnC	13:03:10.07	-1.76*
DRGR	332.3	132	PnC	13:03:11.94	-0.45*
ARSA	337.1	239	Pn	13:03:12.89	-0.09*
			Sn	03:51.06	-0.14*
PRU	378.0	291	ePn	13:03:16.80	-1.29*
			eSn	04:08.40	8.11*
CJR	389.6	126	PnD	13:03:18.97	-0.56*
BZS	390.4	155	PnD	13:03:19.07	-0.56*
MOA	395.9	255	Pn	13:03:19.90	-0.42*
SOKA	404.0	234	Pn	13:03:20.99	-0.34*
			Sn	04:05.27	-0.79*
FRGS	407.5	176	PnD	13:03:20.91	-0.86*
KHC	429.1	275	ePn	13:03:23.40	-1.05*
			eSn	04:20.70	9.07*
OBKA	445.0	235	Pn	13:03:26.49	0.05*
			Sn	04:15.29	0.14*
BURA	450.7	107	PnC	13:03:26.14	-1.01*
GZR	455.9	146	PnD	13:03:27.83	0.03*
HERR	491.3	152	PnD	13:03:31.84	-0.37*
KBA	491.9	247	Pn	13:03:32.72	0.43*
			Sn	04:26.03	0.46*
NKC	529.4	288	ePn	13:03:35.00	-1.97*
VOIR	567.4	131	PnD	13:03:41.83	0.13*
WTTA	604.5	254	Pn	13:03:47.47	1.14*
FETA	678.5	253	Pn	13:03:55.81	0.25*

410.

2015-11-03 time: 13:13:54.47 UTC ML= 0.6  
 lat: 47.327N lon: 18.422E h= 3.0 km  
 erh= 0.5km erz= 1.3km  
 nr= 5 gap=274 rms=0.01  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	7.6	342	ePgC	13:13:55.93	0.00
			eSg	13:57.05	-0.01
CSKK	12.8	288	ePgD	13:13:56.82	0.00
			eSg	13:58.68	0.02
PKST	30.3	256	eSg	13:14:04.11	-0.02

411.

2015-11-04 time: 0:26:26.82 UTC ML= 0.4  
 lat: 47.326N lon: 18.392E h= 5.4 km  
 erh= 5.3km erz= 7.8km  
 nr= 6 gap=255 rms=0.27  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	7.3	360	ePg	0:26:28.30	-0.14
			eSg	26:29.39	-0.31
CSKK	10.7	293	ePg	0:26:29.18	0.22
			eSg	26:30.99	0.36
PKST	28.0	255	ePg	0:26:32.07	0.15
			eSg	26:35.46	-0.43

412.

2015-11-04 time: 3:42:02.69 UTC ML= 1.0  
 lat: 47.354N lon: 18.423E h= 10.0 km  
 erh= 3.0km erz= 2.2km  
 nr= 16 gap=100 rms=0.86  
 Locality: Gánt  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	4.9	330	ePg	3:42:04.37	-0.31
			eSg	42:05.50	-0.73
CSKK	12.3	275	ePg	3:42:05.25	-0.27
			eSg	42:07.10	-0.63
PKST	31.2	250	ePg	3:42:08.19	-0.35
			eSg	42:12.69	-0.42
BUD	47.6	72	eSg	3:42:18.24	0.09
MPLH	69.9	253	eSg	3:42:25.41	0.28
PKS9	85.9	187	ePg	3:42:19.73	1.59
			eSg	42:31.63	1.45
MORH	127.6	172	ePnD	3:42:24.17	-0.18
			eSn	42:38.46	-2.79
PKSM	128.0	173	ePn	3:42:24.11	-0.30
			eSn	42:39.55	-1.79
VYHS	130.5	14	ePn	3:42:26.00	1.28
			eSn	42:39.90	-2.00

413.

2015-11-05 time: 14:46:07.70 UTC ML= 1.1  
 lat: 47.344N lon: 18.426E h= 8.1 km  
 erh= 6.4km erz= 5.3km  
 nr= 10 gap=199 rms=0.19  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	5.9	333	ePg	14:46:09.64	0.14
			eSg	46:10.72	-0.18
CSKK	12.7	280	ePgD	14:46:10.55	0.16
			eSg	46:12.13	-0.36
PKST	31.1	252	ePg	14:46:13.52	0.08
			eSg	46:17.91	-0.01
MPLH	69.8	254	eSg	14:46:30.23	0.18
MORH	126.5	172	ePnC	14:46:29.45	-0.03
			eSn	46:44.24	-2.22*
PKSM	126.9	173	ePnC	14:46:29.50	-0.03
			eSn	46:44.72	-1.83*

414.

2015-11-06 time: 8:16:46.06 UTC ML= 0.2  
 lat: 47.332N lon: 18.413E h= 0.0 km  
 erh= 8.7km erz= \*\*\*km  
 nr= 6 gap=268 rms=0.19  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	6.8	346	ePgD	8:16:47.21	-0.07
			eSg	16:48.24	0.01
CSKK	12.0	287	ePgD	8:16:48.10	-0.11
			eSg	16:50.02	0.14
PKST	29.8	254	ePg	8:16:51.75	0.37
			eSg	16:55.23	-0.29

415.

2015-11-06 time: 13:49:59.22 UTC ML= 0.3  
 lat: 47.326N lon: 18.433E h= 1.2 km  
 erh= 0.1km erz= 0.6km  
 nr= 5 gap=279 rms=0.09  
 Locality: Zámoly  
 Comments:

Földrengés paraméterek

Hypocenter Parameters

sta	dist	azm	phase	hr	mn	sec	res
PKSG	8.0	337	ePgD	13:50:00.68			0.02
			eSg		50:01.73		-0.06
CSKK	13.6	288	ePgD	13:50:01.74			0.07
			eSg		50:03.61		0.04
PKST	31.0	256	eSg	13:50:08.84			-0.25

416.

2015-11-06 time: 23:13:31.81 UTC ML= 1.6  
 lat: 47.354N lon: 18.377E h= 10.0 km  
 erh= 1.2km erz= 0.9km  
 nr= 29 gap= 58 rms=0.51  
 Locality: Gánt  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSG	4.3	14	ePg	23:13:33.28			-0.48
			eSg		13:34.38		-0.89
CSKK	8.8	277	ePgc	23:13:34.13			-0.06
			eSg		13:35.99		-0.06
PKST	28.0	248	ePg	23:13:37.02			-0.09
			eSg		13:41.65		0.40
BUD	50.9	74	ePg	23:13:41.02			-0.06
			eSg		13:46.75		-1.55
SRO	51.3	355	ePg	23:13:41.40			0.26
			eSg		13:47.90		-0.52
TIH	62.4	216	ePg	23:13:42.94			-0.16
			eSg		13:51.99		0.09
MPLH	66.6	252	ePg	23:13:43.96			0.13
			eSg		13:54.35		1.14
PKS7	68.5	120	ePg	23:13:44.92			0.75
			eSg		13:53.64		-0.18
PKS9	85.6	185	ePg	23:13:47.88			0.68
			eSg		13:58.63		-0.58
PKS6	123.3	133	ePn	23:13:53.77			0.83
			eSn		14:09.53		0.11
PKSM	128.6	171	ePnC	23:13:52.95			-0.65
			eSn		14:07.73		-2.86*
VYHS	131.3	15	ePn	23:13:54.40			0.46
			eSn		14:08.70		-2.50*
MODS	140.1	324	ePn	23:13:55.30			0.27
			eSn		14:12.20		-0.94
KOVH	142.3	189	ePn	23:13:54.88			-0.43
			eSn		14:13.43		-0.21
PKSV	163.2	183	ePn	23:13:57.88			-0.04
			eSn		14:17.44		-0.84

417.

2015-11-06 time: 23:17:50.82 UTC ML= 0.3  
 lat: 47.325N lon: 18.421E h= 0.0 km  
 erh= 0.4km erz=54.8km  
 nr= 5 gap=273 rms=0.02  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
PKSG	7.8	343	ePgD	23:17:52.22			0.02
			eSg		17:53.27		-0.01
CSKK	12.8	289	ePgD	23:17:53.09			-0.02
			eSg		17:54.91		0.01
PKST	30.2	256	eSg	23:18:00.41			0.01

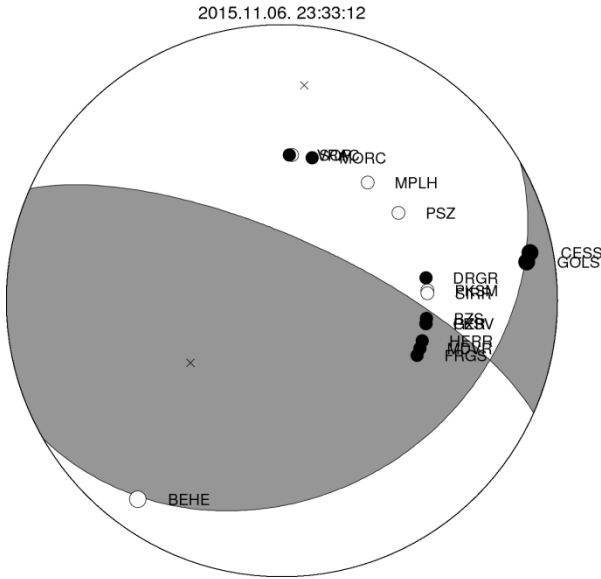
418.

2015-11-06 time: 23:33:12.43 UTC ML= 2.6  
 lat: 46.093N lon: 16.384E h= 11.3 km  
 erh= 1.4km erz= 1.0km  
 nr= 54 gap=122 rms=0.69  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
KOGS	40.8	345	iPg	23:33:19.92			-0.07
			iSg		33:25.20		-0.68
BEHE	51.7	36	ePgD	23:33:22.20			0.33
			eSg		33:29.48		0.24
GOLS	59.5	261	iPgc	23:33:23.41			0.17
			iSg		33:32.60		0.93
GCIS	63.8	247	iPg	23:33:24.27			0.28
DOBS	71.0	275	iPg	23:33:25.14			-0.12
			iSg		33:34.16		-1.11
CESS	72.5	259	iPgc	23:33:25.74			0.21
			iSg		33:35.92		0.17
CRES	77.7	248	iPg	23:33:26.45			-0.01
			eSg		33:37.37		-0.03
GROS	79.3	301	iPg	23:33:26.27			-0.47
PKDKS	107.3	268	iPn	23:33:31.15			-0.25
BOJS	109.7	233	iPn	23:33:31.49			-0.21
			eSn		33:46.27		-0.46
PERS	114.7	302	iPn	23:33:31.75			-0.57
			iSn		33:44.83		-3.01
SOKA	122.6	302	Pn	23:33:32.96			-0.35
			Sn		33:49.00		-0.60
VISS	124.0	255	ePn	23:33:33.61			0.12
			iSn		33:49.37		-0.54
KOVH	132.7	90	ePn	23:33:34.37			-0.21
			eSn		33:50.03		-1.82
ARSA	144.5	333	Pn	23:33:36.17			0.12
			Sn		33:54.08		-0.39
TIH	146.5	52	ePn	23:33:36.49			0.19
PKSV	146.5	99	ePnC	23:33:36.16			-0.14
OBKA	148.7	288	Pn	23:33:37.16			0.59
			Sn		33:56.91		1.51
MPLH	148.9	36	ePnD	23:33:36.45			-0.14
			eSn		33:54.70		-0.73
PKS9	155.9	69	ePn	23:33:36.77			-0.69
PKSM	174.9	86	ePnD	23:33:39.42			-0.41
SOP	177.3	4	ePnD	23:33:41.94			1.81
			eSn		34:00.14		-1.59
PKST	181.0	44	ePn	23:33:41.79			1.20
CSKK	201.3	45	ePn	23:33:45.21			2.09
CONA	207.8	349	Pn	23:33:44.49			0.55
			Sn		34:08.42		-0.10
MYKA	219.3	286	Pn	23:33:46.67			1.30
			Sn		34:12.55		1.49
ZST	240.1	13	ePn	23:33:47.90			-0.06
			eSn		34:12.60		-3.07*
SRO	241.1	38	ePn	23:33:49.30			1.21
			eSn		34:15.00		-0.91
MOA	253.2	320	Pn	23:33:50.42			0.83
			Sn		34:18.58		0.00
KBA	257.4	295	Pn	23:33:51.49			1.37
			Sn		34:27.86		8.35*
MODS	262.4	15	ePn	23:33:49.60			-1.15
			eSn		34:16.50		-4.13*
SMOL	280.5	16	ePn	23:33:53.30			0.30
			eSn		34:21.70		-2.94*
FRGS	287.7	112	PnC	23:33:53.76			-0.14
ABTA	306.4	284	Pn	23:33:57.55			1.32*
			Sn		34:33.35		2.96*
VYHS	325.1	35	ePn	23:33:58.40			-0.16*
			eSn		34:30.90		-3.63*
PSZ	335.4	53	PnD	23:33:58.50			-1.34*
VRAC	357.8	3	PnC	23:34:03.02			0.38*
			Sn		34:38.90		-2.91*
WTTA	385.8	290	Pn	23:34:08.35			2.21*
WATA	392.7	291	Sn	23:34:51.10			1.56*
KHC	398.2	328	ePn	23:34:09.30			1.62*
			eSn		34:49.90		-0.87*
SIRR	407.8	87	PnD	23:34:07.38			-1.50*
BZS	409.9	97	PnC	23:34:08.91			-0.22*
MORC	418.6	12	PnC	23:34:10.31			0.09*
			Sn		34:52.20		-3.10*
MDVR	441.7	109	PnC	23:34:13.35			0.24*
			Sn		34:58.70		-1.73*
KRLC	443.8	4	ePn	23:34:13.70			0.34*

**Hypocenter Parameters**

		eSn	34:58.60	-2.28*	
DPC	473.4	359	ePn	23:34:18.30	1.25*
HERR	490.5	106	PnC	23:34:19.44	0.26*
			Sn	35:08.10	-3.15*
DRGR	492.4	81	PnC	23:34:18.02	-1.40*
			Sn	35:08.60	-3.08*
GZR	503.6	99	PnC	23:34:20.44	-0.38*
			Sn	35:12.30	-1.85*
NKC	545.6	328	ePn	23:34:26.70	0.65*
			eSn	35:20.70	-2.78*



419.

2015-11-08 time: 3:20:35.05 UTC ML= 1.6  
 lat: 47.639N lon: 20.269E h= 1.2 km  
 erh= 2.2km erz= 3.0km  
 nr= 27 gap=108 rms=0.98  
 Locality: Heves  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
BSZH	37.8	180	ePgD	3:20:42.03			0.23
			eSg		20:46.03		-1.03
PSZ	41.9	318	ePg	3:20:42.75			0.22
			eSg		20:48.70		0.34
PENC	76.0	283	ePg	3:20:48.89			0.27
			eSg		20:58.92		-0.29
DBSH	87.4	235	eSg	3:21:02.58			-0.25
PKSN	87.9	200	ePg	3:20:50.97			0.22
			eSg		21:03.34		0.34
KECS	95.2	10	ePg	3:20:51.40			-0.66
			eSg		21:04.50		-0.82
BUD	95.3	260	eSg	3:21:01.66			-3.69
PKS7	106.5	232	ePg	3:20:53.75			-0.32
			eSg		21:07.14		-1.77
VYHS	143.0	312	ePn	3:20:59.30			-0.45
PKSG	144.2	259	ePn	3:21:00.49			0.59
			eSn		21:17.48		-1.80
CRVS	166.0	32	ePn	3:21:03.90			1.28
TRPA	178.3	72	ePn	3:21:02.97			-1.19
			eSn		21:25.32		-1.55
PKS9	191.1	232	ePn	3:21:07.54			1.79
			eSn		21:30.87		1.18
MORH	200.9	218	ePn	3:21:09.32			2.34
			eSn		21:26.84		-5.04*
PKSM	201.4	218	eSn	3:21:26.74			-5.24*
KOVH	238.9	224	ePn	3:21:15.95			4.23
			eSn		21:44.50		4.18*

**Földrengés paraméterek**

420.

2015-11-08 time: 19:49:18.00 UTC ML= 1.5  
 lat: 46.465N lon: 16.202E h= 13.9 km  
 erh= 1.7km erz= 1.1km  
 nr= 41 gap= 97 rms=0.77  
 Locality: Slovenia  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
KOGS	4.1	117	iPgC	19:49:20.61			0.01
			iSg		49:21.96		-0.66
BEHE	44.0	89	ePg	19:49:27.07			0.82
			eSg		49:32.94		0.26
GROS	53.8	270	iPg	19:49:28.25			0.32
			eSg		49:35.05		-0.62
DOBS	66.5	238	ePg	19:49:30.29			0.16
GOLS	67.3	221	iPgC	19:49:30.65			0.37
			eSg		49:39.53		-0.33
GCIS	79.9	214	ePg	19:49:32.70			0.21
			eSg		49:43.70		-0.09
PERS	85.4	283	eP*	19:49:33.45			0.01
			eS*		49:43.93		-1.55
LEGS	89.2	230	iP*	19:49:34.23			0.22
			eS*		49:45.37		-1.13
CRES	91.4	219	iP*	19:49:34.67			0.31
			eS*		49:46.39		-0.72
SOKA	92.8	285	P*	19:49:34.52			-0.04
			S*		49:45.63		-1.84
ARSA	101.5	329	P*	19:49:35.66			-0.23
			S*		49:48.62		-1.23
PKKS	103.1	244	iPnD	19:49:36.48			0.36
OBKA	127.1	272	Pn	19:49:40.66			1.56
			Sn		49:56.17		0.61
MPLH	128.7	52	ePn	19:49:40.30			1.00
			eSn		49:57.60		1.68
SOP	138.1	11	ePn	19:49:39.27			-1.21
			eSn		50:00.29		2.28
KOVH	152.1	106	ePn	19:49:41.80			-0.43
			eSn		49:58.81		-2.31
PKSV	170.8	112	ePn	19:49:44.19			-0.36
			eSn		50:02.19		-3.06
PKSM	189.9	99	ePn	19:49:46.23			-0.70
			eSn		50:06.37		-3.13
MORH	190.0	98	ePn	19:49:46.22			-0.73
			eSn		50:06.48		-3.05
MYKA	197.3	275	Pn	19:49:48.46			0.61
			Sn		50:11.17		0.03
MOA	212.7	316	Pn	19:49:49.98			0.20
			Sn		50:15.01		0.44
KBA	228.7	287	Pn	19:49:57.75			5.98*
			Sn		50:18.66		0.55
KHC	355.7	326	ePn	19:50:10.60			2.99*
			eSn		50:47.10		0.80*

421.

2015-11-08 time: 22:58:55.27 UTC ML= 1.7  
 lat: 45.866N lon: 16.035E h= 10.0 km  
 erh= 2.2km erz= 2.4km  
 nr= 20 gap=155 rms=0.47  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
GCIS	31.6	270	iPg	22:59:01.33			0.13
			iSg		59:05.34		-0.48
GOLS	35.7	297	iPg	22:59:01.93			0.04
			eSg		59:07.52		0.47
CRES	45.1	264	iPg	22:59:03.51			-0.02
DOBS	54.0	306	iPg	22:59:05.11			0.03
LEGS	56.4	279	ePg	22:59:05.53			0.02
			eSg		59:12.99		-0.50
KOGS	66.8	14	ePg	22:59:07.68			0.34
			iSg		59:16.02		-0.74

## Földrengés paraméterek

BOJS	73.0	237	ePg	22:59:08.27	-0.17
GROS	77.9	328	iPg	22:59:09.03	-0.28
PKKS	83.3	285	iPgC	22:59:10.16	-0.09
BEHE	88.2	40	ePg	22:59:12.93	1.80
			eSg	59:25.67	2.17
PERS	111.1	320	iPn	22:59:15.58	0.70
KOVH	161.9	81	ePn	22:59:20.91	-0.31
			eSn	59:39.02	-2.44*
PKSM	205.4	79	ePn	22:59:26.38	-0.26
			eSn	59:50.19	-0.92

422.

2015-11-09 time: 4:11:17.17 UTC ML= 0.3  
 lat: 47.322N lon: 18.428E h= 1.5 km  
 erh= 2.1km erz=13.2km  
 nr= 6 gap=277 rms=0.05  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	8.2	340	ePg	4:11:18.72	0.06
			eSg	11:19.77	-0.05
CSKK	13.4	290	ePg	4:11:19.55	-0.03
			eSg	11:21.53	0.06
PKST	30.6	257	ePg	4:11:22.60	-0.04
			eSg	11:26.91	0.00

423.

2015-11-09 time: 12:23:03.64 UTC ML= 0.7  
 lat: 46.024N lon: 18.105E h= 0.0 km  
 erh= 3.9km erz= 397km  
 nr= 5 gap=294 rms=0.18  
 Locality: Zók  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	7.2	357	ePgC	12:23:04.73	-0.19
			eSg	23:06.11	0.19
PKSM	46.4	63	ePgC	12:23:12.07	0.14
MORH	46.8	63	ePgC	12:23:12.09	0.09
			eSg	23:18.20	-0.32

424.

2015-11-10 time: 9:18:52.96 UTC ML= 0.9  
 lat: 47.104N lon: 17.985E h= 0.0 km  
 erh= 2.5km erz= 621km  
 nr= 8 gap=153 rms=0.45  
 Locality: Litér  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	17.6	12	ePg	9:18:55.52	-0.59
			eSg	18:58.70	0.13
TIH	23.7	197	ePg	9:18:57.48	0.28
MPLH	34.6	282	ePg	9:18:59.39	0.25
			eSg	19:04.05	0.09
CSKK	35.6	36	ePg	9:18:58.92	-0.40
PKSG	44.4	44	ePg	9:19:00.70	-0.18
			eSg	19:08.46	1.40

425.

2015-11-11 time: 11:02:05.08 UTC ML= 0.9  
 lat: 47.215N lon: 18.303E h= 0.0 km  
 erh= 3.4km erz= 2.5km  
 nr= 9 gap=246 rms=0.39  
 Locality: Moha  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	16.8	349	ePg	11:02:07.80	-0.28

## Hypocenter Parameters

PKSG	20.8	19	ePg	11:02:08.92	0.13
			eSg	02:12.14	0.46
PKST	20.9	284	ePgC	11:02:08.47	-0.35
			eSg	02:11.17	-0.56
MPLH	58.1	265	ePgC	11:02:15.91	0.46
			eSg	02:24.08	0.54
VYHS	147.7	16	ePn	11:02:30.50	-0.03
			eSn	02:49.90	-0.49

426.

2015-11-12 time: 10:03:27.86 UTC ML= 0.7  
 lat: 47.218N lon: 18.316E h= 0.0 km  
 erh= 3.9km erz= 482km  
 nr= 6 gap=249 rms=0.28  
 Locality: Moha  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	16.7	345	ePg	10:03:30.93	0.09
			eSg	03:33.23	0.07
PKSG	20.2	16	ePg	10:03:31.36	-0.10
			eSg	03:34.29	0.03
PKST	21.8	282	ePg	10:03:31.25	-0.50
MPLH	59.1	265	ePg	10:03:38.82	0.41

427.

2015-11-13 time: 9:42:31.21 UTC ML= 1.6  
 lat: 48.637N lon: 20.714E h= 0.0 km  
 erh= 1.6km erz= 3.5km  
 nr= 10 gap=156 rms=0.38  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	24.0	225	ePg	9:42:35.20	-0.30
			eSg	42:39.30	0.46
CRVS	62.3	62	ePg	9:42:42.50	0.16
			eSg	42:50.60	-0.42
PSZ	100.4	217	ePg	9:42:49.31	0.17
			eSg	43:02.56	-0.57
LANS	107.8	302	ePg	9:42:51.00	0.54
			eSg	43:05.10	-0.37
VYHS	139.5	263	ePn	9:42:55.80	0.16
			eSn	43:13.40	-1.30

428.

2015-11-17 time: 7:58:45.03 UTC ML= 1.1  
 lat: 47.332N lon: 18.462E h= 0.0 km  
 erh= 1.9km erz= 297km  
 nr= 6 gap=212 rms=0.18  
 Locality: Lovasberény  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	8.6	321	ePg	7:58:46.59	0.02
			eSg	58:47.52	-0.24
CSKK	15.6	283	ePg	7:58:47.87	0.05
			eSg	58:49.75	-0.24
PKST	33.3	256	ePg	7:58:51.27	0.29
PKSM	125.2	174	eSg	7:59:24.77	-0.06

429.

2015-11-18 time: 9:35:05.91 UTC ML= 0.4  
 lat: 47.185N lon: 18.221E h= 0.0 km  
 erh= 2.6km erz= 309km  
 nr= 6 gap=271 rms=0.18  
 Locality: Csór  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
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## Hypocenter Parameters

PKST 16.4 300 ePgD 9:35:08.78 -0.05  
 eSg 35:11.28 0.17  
 CSKK 20.1 9 ePgD 9:35:09.53 0.03  
 eSg 35:11.81 -0.49  
 PKSG 26.4 29 ePgD 9:35:10.58 -0.05  
 eSg 35:14.61 0.31

430.

2015-11-19 time: 10:54:40.97 UTC ML= 0.2  
 lat: 47.212N lon: 18.279E h= 0.0 km  
 erh= 1.6km erz= 218km  
 nr= 6 gap=263 rms=0.13  
 Locality: Iszkaszentgyörgy  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	16.8	355	ePg	10:54:44.09	0.11
			eSg	54:46.44	0.12
PKST	19.3	286	ePg	10:54:44.48	0.07
			eSg	54:46.91	-0.19
PKSG	21.7	23	ePg	10:54:44.84	0.00
			eSg	54:47.63	-0.23

431.

2015-11-19 time: 15:39:35.29 UTC ML= 2.6  
 lat: 47.503N lon: 18.629E h= 12.4 km  
 erh= 1.5km erz= 1.2km  
 nr= 48 gap= 39 rms=0.90  
 Locality: Bicske  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	21.8	235	ePgD	15:39:39.70	-0.07
BUD	29.8	94	ePgC	15:39:40.39	-0.67
			eSg	39:44.15	-1.41
CSKK	31.9	241	ePg	15:39:41.66	0.26
			eSg	39:46.20	0.04
SRO2	33.8	329	ePg	15:39:41.10	-0.63
			eSg	39:45.80	-0.94
SRO	41.8	325	ePg	15:39:43.70	0.61
			eSg	39:49.70	0.54
PKST	52.5	239	ePg	15:39:44.75	-0.17
			eSg	39:52.23	-0.20
PENC	58.5	57	ePg	15:39:45.19	-0.79
			eSg	39:53.48	-0.83
DBSH	62.9	124	ePg	15:39:48.34	1.60
			eSg	39:54.99	-0.67
PKS7	64.7	142	ePg	15:39:48.40	1.34
			eSg	39:58.06	1.82
TIH	87.2	220	ePgD	15:39:50.59	-0.43
			eSg	40:03.11	-0.18
MPLH	90.3	246	ePg	15:39:51.64	0.08
			eSg	40:04.45	0.19
PKS9	105.3	195	ePnD	15:39:54.19	0.32
			eSn	40:07.24	-1.12
PSZ	105.6	64	ePn	15:39:53.51	-0.40
			eSn	40:06.54	-1.89
VYHS	111.3	8	ePn	15:39:54.60	-0.01
			eSn	40:07.90	-1.79
PKSN	115.5	126	eSn	15:40:10.88	0.25
PKS2	120.9	158	eSn	15:40:12.25	0.43
PKS6	123.0	145	eSn	15:40:12.36	0.06
BSZH	125.7	100	ePn	15:39:56.14	-0.28
			eSn	40:13.59	0.69
ZST	137.8	304	ePn	15:39:58.30	0.38
			eSn	40:15.10	-0.48
MODS	139.9	314	ePn	15:39:58.40	0.22
			eSn	40:15.10	-0.94
MORH	143.1	180	ePn	15:39:58.20	-0.39
			eSn	40:14.40	-2.36
PKSM	143.6	180	ePnD	15:39:58.23	-0.41
			eSn	40:14.45	-2.41
SOP	157.0	277	ePn	15:40:03.16	2.84

## Földrengés paraméterek

KOVH 162.4 194 ePn 15:40:00.82 -0.17  
 eSn 40:19.82 -1.21  
 KECS 176.3 52 ePn 15:40:05.00 2.27  
 eSn 40:28.00 3.88\*  
 PKSV 181.8 189 ePn 15:40:03.60 0.19  
 eSn 40:23.39 -1.95  
 LANS 193.5 19 ePn 15:40:08.40 3.54  
 CRVS 261.8 54 ePn 15:40:19.40 6.02\*  
 KRLC 316.6 335 ePn 15:40:20.80 0.58\*  
 eSn 40:55.10 -0.16\*  
 DPC 358.9 332 ePn 15:40:26.70 1.20\*  
 eSn 41:03.70 -0.95\*  
 KHC 416.1 296 ePn 15:40:33.00 0.38\*  
 eSn 41:16.50 -0.83\*

432.

2015-11-22 time: 2:37:51.94 UTC ML=-0.3  
 lat: 47.328N lon: 18.342E h= 10.0 km  
 erh= 8.9km erz= 6.2km  
 nr= 6 gap=224 rms=0.25  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	7.3	302	ePg	2:37:54.28	0.13
			eSg	37:55.97	0.10
PKSG	8.0	28	ePg	2:37:54.13	-0.09
			eSg	37:55.81	-0.19
PKST	24.5	252	ePg	2:37:56.98	0.31
			eSg	37:59.83	-0.53

433.

2015-11-22 time: 3:09:08.29 UTC ML= 0.1  
 lat: 47.317N lon: 18.348E h= 10.0 km  
 erh= 5.5km erz= 4.5km  
 nr= 6 gap=234 rms=0.21  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	8.4	308	ePgD	3:09:10.78	0.15
			eSg	09:12.58	0.14
PKSG	8.9	21	ePgD	3:09:10.64	-0.05
			eSg	09:12.28	-0.28
PKST	24.6	255	ePg	3:09:13.22	0.19
			eSg	09:16.28	-0.45

434.

2015-11-23 time: 10:05:11.58 UTC ML= 1.2  
 lat: 47.870N lon: 19.427E h= 0.0 km  
 erh= 3.1km erz= 839km  
 nr= 6 gap=150 rms=0.49  
 Locality: Bercel  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	14.0	231	ePgD	10:05:13.82	-0.26
			eSg	05:16.37	0.34
PSZ	35.4	81	ePgD	10:05:17.66	-0.24
			eSg	05:23.20	0.37
VYHS	82.1	328	ePg	10:05:27.00	0.76
			eSg	05:36.80	-0.87

435.

2015-11-23 time: 11:35:10.92 UTC ML= 0.9  
 lat: 47.268N lon: 18.340E h= 0.0 km  
 erh= 1.5km erz= 427km  
 nr= 7 gap=153 rms=0.28  
 Locality: Sárkereszttes  
 Comments: probably explosion

## Földrengés paraméterek

## Hypocenter Parameters

sta	dist	azm	phase	hr mn sec	res
CSKK	12.1	330	ePg	11:35:13.72	0.63
			eSg	35:14.44	-0.34
PKSG	14.3	16	ePg	11:35:13.34	-0.13
			eSg	35:15.37	-0.09
PKST	23.1	267	ePg	11:35:15.08	0.03
			eSg	35:18.10	-0.18
PKSM	119.7	169	eSg	11:35:48.97	0.01

436.

2015-11-23 time: 11:42:57.22 UTC ML= 0.2  
 lat: 46.083N lon: 18.104E h= 5.5 km  
 erh= 3.4km erz= 3.1km  
 nr= 8 gap=176 rms=0.37  
 Locality: Kővágóttós  
 Comments:

sta	dist	azm	phase	hr mn sec	res
KOVH	0.7	328	ePg	11:42:57.91	-0.29
			eSg	42:59.23	0.26
PKSV	24.5	152	ePg	11:43:02.21	0.51
			eSg	43:04.54	-0.65
PKSM	43.9	71	ePg	11:43:05.14	0.03
			eSg	43:11.67	0.40
MORH	44.2	71	ePg	11:43:05.23	0.06
			eSg	43:10.88	-0.50

437.

2015-11-23 time: 22:44:07.53 UTC ML= 1.1  
 lat: 46.745N lon: 19.301E h= 8.3 km  
 erh= 3.1km erz= 1.6km  
 nr= 6 gap=323 rms=0.20  
 Locality: Csengőd  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSM	78.0	220	ePg	22:44:21.24	-0.29
			eSg	44:32.69	0.23
PKS9	80.2	257	ePg	22:44:22.14	0.22
			eSg	44:32.96	-0.19
KOVH	117.7	232	ePn	22:44:28.17	-0.01
			eSn	44:44.36	0.07

438.

2015-11-24 time: 7:42:51.52 UTC ML= 0.9  
 lat: 47.428N lon: 18.425E h= 0.0 km  
 erh= 8.0km erz= 751km  
 nr= 5 gap=333 rms=0.34  
 Locality: Gánt  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	4.8	213	ePgc	7:42:52.50	0.13
			eSg	42:52.99	-0.05
CSKK	14.4	240	ePg	7:42:53.91	-0.17
			eSg	42:55.52	-0.56
PKST	35.0	238	eSg	7:43:03.30	0.66

439.

2015-11-24 time: 9:08:10.47 UTC ML= 0.5  
 lat: 46.076N lon: 18.340E h= 0.0 km  
 erh= 3.5km erz= 188km  
 nr= 6 gap=217 rms=0.12  
 Locality: Bogád  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KOVH	18.7	274	ePg	9:08:13.69	-0.11
			eSg	08:16.45	0.05

PKSM	27.7	57	ePg	9:08:15.50	0.08
			eSg	08:19.23	-0.05
MORH	28.2	56	ePg	9:08:15.66	0.16
			eSg	08:19.22	-0.20

440.

2015-11-24 time: 10:51:52.99 UTC ML= 0.4  
 lat: 47.190N lon: 18.287E h= 0.0 km  
 erh= 1.5km erz= 196km  
 nr= 6 gap=273 rms=0.12  
 Locality: Sárkeszi  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	19.4	354	ePg	10:51:56.32	-0.13
			eSg	51:59.23	0.08
PKST	20.6	292	ePg	10:51:56.84	0.17
			eSg	51:59.38	-0.17
PKSG	23.8	19	ePg	10:51:57.29	0.05
			eSg	52:00.53	-0.03

441.

2015-11-25 time: 10:56:20.81 UTC ML= 0.5  
 lat: 47.180N lon: 18.316E h= 0.0 km  
 erh= 3.3km erz= 446km  
 nr= 6 gap=279 rms=0.29  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	20.8	348	ePg	10:56:24.86	0.34
			eSg	56:27.60	0.19
PKST	23.0	292	ePg	10:56:25.00	0.07
			eSg	56:28.13	-0.01
PKSG	24.2	14	ePg	10:56:24.59	-0.55
			eSg	56:28.43	-0.08

442.

2015-11-26 time: 8:32:52.66 UTC ML= 0.8  
 lat: 45.855N lon: 18.419E h= 0.0 km  
 erh= 0.9km erz=94.8km  
 nr= 7 gap=262 rms=0.06  
 Locality: Nagyharsány  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSV	13.5	286	ePg	8:32:55.09	0.02
			eSg	32:57.02	0.07
KOVH	35.8	316	ePg	8:32:58.97	-0.09
PKSM	43.2	23	ePgc	8:33:00.44	0.07
			eSg	33:06.44	0.05
MORH	43.7	24	ePgc	8:33:00.44	-0.02
			eSg	33:06.44	-0.11

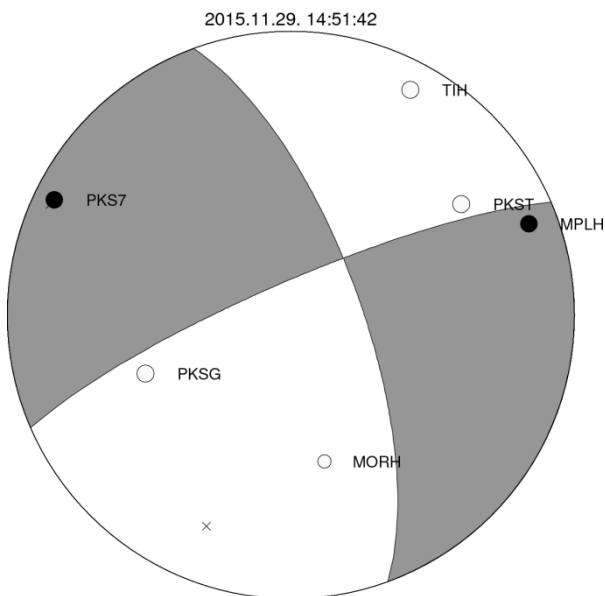
443.

2015-11-29 time: 14:51:42.71 UTC ML= 1.8  
 lat: 47.355N lon: 18.252E h= 10.7 km  
 erh= 1.6km erz= 1.2km  
 nr= 41 gap= 40 rms=0.85  
 Locality: Csókakő  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	1.2	35	ePg	14:51:44.06	-0.57
			eSg	51:45.16	-0.98
PKSG	11.3	68	ePgd	14:51:44.98	-0.51
			eSg	51:46.66	-0.99
PKST	19.6	237	ePgd	14:51:46.30	-0.40
			eSg	51:49.29	-0.52
SRO2	46.6	13	ePg	14:51:51.10	-0.15

## Hypocenter Parameters

sta	dist	azm	phase	hr	mn	sec	res
SRO	51.2	5	eSg	14:51:53.20			1.15
			ePg	51:59.50			0.16
TIH	57.4	208	ePgD	14:51:53.54			0.40
			eSg	52:01.66			0.39
MPLH	57.7	249	ePgC	14:51:53.20			0.02
			eSg	52:02.29			0.93
BUD	60.0	76	ePg	14:51:54.32			0.73
			eSg	52:00.57			-1.51
PKS7	76.9	116	ePgC	14:51:57.39			0.82
			eSg	52:06.75			-0.63
PKS9	85.4	179	ePg	14:51:59.25			1.18
			eSg	52:09.30			-0.75
PENC	91.4	58	ePg	14:51:58.95			-0.19
			eSg	52:11.62			-0.34
PKS2	120.7	143	eSn	14:52:20.32			0.75
MORH	130.1	167	ePnD	14:52:04.18			-0.41
			eSn	52:19.06			-2.60
PKSM	130.5	167	ePn	14:52:04.23			-0.41
			eSn	52:19.09			-2.65
VYHS	134.0	19	ePn	14:52:05.60			0.52
			eSn	52:21.60			-0.93
MODS	134.7	327	ePn	14:52:04.10			-1.07
			eSn	52:19.70			-2.99
PSZ	138.4	63	ePn	14:52:07.30			1.67
			eSn	52:23.68			0.17
KOVH	141.2	185	ePn	14:52:05.91			-0.07
			eSn	52:21.70			-2.44
PKSV	163.0	180	ePn	14:52:09.45			0.76
			eSn	52:26.70			-2.26
CONA	190.6	290	Pn	14:52:12.23			0.09
			Sn	52:39.08			3.99*
ARSA	206.7	267	Pn	14:52:14.10			-0.04
			Sn	52:41.53			2.87



444.

2015-11-30 time: 12:46:25.62 UTC ML= 0.8  
 lat: 46.054N lon: 18.136E h= 0.0 km  
 erh= 3.2km erz= 327km  
 nr= 6 gap=257 rms=0.19  
 Locality: Cserkút  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
KOVH	4.7	323	ePg	12:46:26.16			-0.30
			eSg	46:27.34			0.22
PKSM	42.8	66	ePg	12:46:33.41			0.15
			eSg	46:39.04			-0.17
MORH	43.1	65	ePg	12:46:33.45			0.13

## Földrengés paraméterek

eSg 46:39.29 -0.04

445.

2015-12-02 time: 7:54:22.39 UTC ML= 1.0  
 lat: 45.873N lon: 18.402E h= 0.0 km  
 erh= 2.2km erz= 359km  
 nr= 8 gap=252 rms=0.25  
 Locality: Kisharsány  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PKSV	11.7	279	ePg	7:54:24.64			0.16
			eSg	54:26.35			0.24
KOVH	33.5	316	ePg	7:54:27.55			-0.81
			eSg	54:33.07			0.05
PKSM	42.0	26	ePgC	7:54:29.88			-0.01
			eSg	54:35.85			0.11
MORH	42.5	26	ePgC	7:54:29.97			-0.01
			eSg	54:35.97			0.07

446.

2015-12-02 time: 9:51:54.27 UTC ML= 0.4  
 lat: 47.214N lon: 18.278E h= 0.0 km  
 erh= 1.8km erz= 472km  
 nr= 8 gap=143 rms=0.33  
 Locality: Iszkaosztgyörgy  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
CSKK	16.7	355	ePg	9:51:57.20			-0.05
			eSg	51:59.23			-0.34
PKST	19.2	285	ePg	9:51:57.63			-0.06
			eSg	51:59.96			-0.40
PKSG	21.5	23	ePg	9:51:58.09			-0.03
			eSg	52:01.43			0.31
MPLH	56.2	265	ePg	9:52:05.10			0.79
PKSM	114.8	166	ePg	9:52:14.57			-0.20

447.

2015-12-02 time: 10:13:10.95 UTC ML= 1.6  
 lat: 47.936N lon: 19.879E h= 0.0 km  
 erh= 2.3km erz= 679km  
 nr= 7 gap=112 rms=0.45  
 Locality: Mátrászentimre  
 Comments: probably explosion

sta	dist	azm	phase	hr	mn	sec	res
PSZ	2.3	149	ePgD	10:13:11.45			0.10
			eSg	13:13.52			1.85
PENC	47.5	250	ePg	10:13:18.84			-0.59
			eSg	13:26.18			0.13
IZAB	71.5	350	ePg	10:13:23.90			0.19
			eSg	13:34.50			0.84
KECS	75.8	37	eSg	10:13:34.70			-0.33

448.

2015-12-03 time: 10:04:17.12 UTC ML= 1.9  
 lat: 48.429N lon: 17.226E h= 1.2 km  
 erh= 1.8km erz= 2.4km  
 nr= 24 gap= 78 rms=0.78  
 Locality: Slovakia  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
MODS	7.2	148	ePg	10:04:17.60			-0.82
			eSg	04:19.50			0.06
SMOL	17.7	58	ePg	10:04:20.20			-0.10
			eSg	04:24.20			1.43
ZST	27.4	200	ePg	10:04:21.80			-0.22
			eSg	04:26.00			0.15



## Földrengés paraméterek

## Hypocenter Parameters

KRUC	93.2	319	ePg	10:04:33.90	0.12
SOP	96.7	211	ePg	10:04:35.59	1.20
			eSg	04:48.96	1.11
VRAC	108.3	335	ePg	10:04:36.40	-0.06
			eSg	04:51.50	-0.05
CONA	115.7	241	Pg	10:04:37.34	-0.45
			Sg	04:53.33	-0.58
VYHS	119.3	86	ePg	10:04:38.00	-0.43
			eSg	04:53.40	-1.65
CSKK	141.5	147	ePn	10:04:43.10	1.45
			eSn	04:58.82	-1.95
MPLH	141.9	170	ePn	10:04:42.06	0.36
			eSn	05:01.41	0.55
PKST	143.4	155	ePn	10:04:41.23	-0.66
			eSn	04:59.04	-2.17
MORC	151.7	9	ePn	10:04:42.80	-0.13
LANS	183.3	64	ePn	10:04:47.40	0.54
KRLC	186.0	350	ePn	10:04:50.60	3.40

449.

2015-12-03 time: 13:38:58.55 UTC ML= 1.0  
 lat: 47.093N lon: 17.992E h= 0.0 km  
 erh= 1.6km erz= 442km  
 nr= 10 gap=157 rms=0.34  
 Locality: Litér  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKST	18.8	10	ePg	13:39:01.29	-0.62
			eSg	39:04.32	-0.20
TIH	22.7	199	ePg	13:39:02.84	0.23
			eSg	39:05.29	-0.48
MPLH	35.4	284	ePg	13:39:04.98	0.11
			eSg	39:10.09	0.30
CSKK	36.3	34	ePg	13:39:05.23	0.19
			eSg	39:10.57	0.47
PKSG	44.9	42	ePg	13:39:06.39	-0.19
			eSg	39:13.43	0.59

450.

2015-12-04 time: 6:36:36.06 UTC ML= 1.7  
 lat: 46.125N lon: 16.508E h= 10.0 km  
 erh= 2.7km erz= 2.6km  
 nr= 22 gap=138 rms=0.83  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
KOGS	41.0	331	ePg	6:36:43.95	0.35
			eSg	36:49.27	-0.20
PTJ	49.4	240	ePg	6:36:45.45	0.38
			eSg	36:51.50	-0.59
CREG	88.0	248	Pg	6:36:51.90	0.02
KOVH	123.2	92	ePn	6:36:57.35	0.17
			eSn	37:12.63	-1.01
SOKA	129.0	298	Pn	6:36:57.74	-0.16
			Sn	37:13.50	-1.44
TIH	136.8	51	ePn	6:36:59.45	0.57
PKSV	137.7	101	ePn	6:37:00.65	1.67
			eSn	37:16.04	-0.82
MPLH	140.4	34	ePn	6:36:59.76	0.43
			eSn	37:18.60	1.12
ARSA	146.0	329	Pn	6:37:00.12	0.10
			Sn	37:18.45	-0.26
PKSM	165.1	87	ePn	6:37:01.15	-1.25
			eSn	37:24.17	1.23
MORH	165.3	87	ePn	6:37:01.10	-1.33
			eSn	37:25.25	2.26
PKST	171.8	43	ePn	6:37:02.21	-1.03
			eSn	37:26.33	1.89

451.

2015-12-04 time: 12:49:04.90 UTC ML= 1.7  
 lat: 45.570N lon: 17.546E h= 11.7 km  
 erh= 6.5km erz= 2.1km  
 nr= 10 gap=313 rms=0.49  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSV	65.4	57	ePgD	12:49:16.74	-0.02
			eSg	49:25.06	-0.94
KOVH	71.9	37	ePgD	12:49:18.59	0.68
			eSg	49:28.07	0.02
PKSM	111.0	50	ePnD	12:49:24.31	0.03
			eSn	49:39.56	0.17
MORH	111.4	50	ePn	12:49:24.34	0.01
			eSn	49:39.91	0.42
PKS9	126.5	27	ePn	12:49:24.65	-1.56
TIH	150.2	10	ePn	12:49:28.75	-0.42

452.

2015-12-07 time: 9:13:04.84 UTC ML= 1.1  
 lat: 47.470N lon: 18.447E h= 0.0 km  
 erh= 7.4km erz= 675km  
 nr= 5 gap=333 rms=0.30  
 Locality: Várgesztes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PKSG	9.7	206	ePgC	9:13:06.71	0.14
			eSg	13:07.77	-0.14
CSKK	18.4	230	ePg	9:13:07.99	-0.14
			eSg	13:10.22	-0.47
PKST	39.0	233	eSg	9:13:17.82	0.58

453.

2015-12-08 time: 9:21:08.29 UTC ML= 1.5  
 lat: 47.898N lon: 19.390E h= 0.0 km  
 erh= 6.1km erz= \*\*\*km  
 nr= 6 gap=128 rms=1.06  
 Locality: Becske  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	14.4	214	ePgC	9:21:10.65	-0.21
			eSg	21:13.84	0.98
PSZ	37.8	87	ePgD	9:21:14.81	-0.23
			eSg	21:19.48	-0.82
VYHS	78.0	328	ePg	9:21:24.00	1.78
			eSg	21:31.20	-1.89

454.

2015-12-08 time: 9:42:34.72 UTC ML= 0.7  
 lat: 46.184N lon: 18.276E h= 10.0 km  
 erh= 1.6km erz= 3.1km  
 nr= 8 gap=211 rms=0.15  
 Locality: Komló  
 Comments:

sta	dist	azm	phase	hr mn sec	res
KOVH	17.3	232	ePgC	9:42:38.18	-0.11
			eSg	42:41.26	0.19
PKSM	28.4	84	ePgD	9:42:40.14	0.05
			eSg	42:44.01	-0.27
MORH	28.6	83	ePgD	9:42:40.12	-0.02
			eSg	42:44.78	0.42
PKSV	32.9	183	ePg	9:42:40.99	0.12
			eSg	42:45.24	-0.42

## Hypocenter Parameters

## Földrengés paraméterek

455.

2015-12-08 time: 10:14:21.32 UTC ML= 0.1  
 lat: 47.196N lon: 18.295E h= 0.0 km  
 erh= 1.6km erz= 202km  
 nr= 5 gap=271 rms=0.09  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	18.8	352	ePg	10:14:24.83	0.15
			eSg	14:27.27	-0.02
PKST	21.0	290	ePg	10:14:25.06	-0.01
			eSg	14:27.94	-0.05
PKSG	23.0	18	ePg	10:14:25.32	-0.10

456.

2015-12-08 time: 11:19:27.23 UTC ML= 1.8  
 lat: 48.616N lon: 20.727E h= 7.0 km  
 erh= 3.7km erz= 3.9km  
 nr= 13 gap=117 rms=1.01  
 Locality: Slovakia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
KECS	23.2	230	ePg	11:19:31.80	0.25
			eSg	19:35.80	0.88
CRVS	62.7	60	ePg	11:19:38.80	0.31
			eSg	19:47.00	-0.27
IZAB	75.0	266	eSg	11:19:51.00	-0.17
			ePg	11:19:42.27	-2.72
PSZ	99.2	219	ePg	11:19:42.27	-2.72
			eSg	19:59.02	0.18
LANS	109.8	303	ePg	11:19:47.50	0.62
			eSg	20:01.20	-1.00
VYHS	140.2	264	ePn	11:19:52.40	1.54
			eSn	20:09.30	0.01
TRPA	144.7	112	ePn	11:19:51.15	-0.27
			eSn	20:09.46	-0.83

457.

2015-12-09 time: 11:48:36.10 UTC ML=-0.2  
 lat: 47.235N lon: 18.253E h= 10.0 km  
 erh= 7.5km erz= 9.8km  
 nr= 5 gap=248 rms=0.29  
 Locality: Iszkaszentgyörgy  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	14.3	2	ePg	11:48:38.80	-0.41
			eSg	48:41.81	0.17
PKST	16.8	279	ePg	11:48:39.52	-0.08
			eSg	48:42.73	0.41
PKSG	20.3	31	ePg	11:48:40.43	0.29

458.

2015-12-09 time: 11:57:17.44 UTC ML= 0.3  
 lat: 47.198N lon: 18.295E h= 0.0 km  
 erh= 0.8km erz= 114km  
 nr= 6 gap=270 rms=0.07  
 Locality: Székesfehérvár  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
CSKK	18.6	352	ePg	11:57:20.71	-0.04
			eSg	57:23.30	-0.03
PKST	20.9	289	ePgD	11:57:21.14	-0.03
			eSg	57:24.14	0.06
PKSG	22.7	18	ePgD	11:57:21.60	0.11
			eSg	57:24.55	-0.11

459.

2015-12-11 time: 7:47:07.10 UTC ML= 1.9  
 lat: 48.430N lon: 17.212E h= 4.1 km  
 erh= 2.4km erz= 2.2km  
 nr= 13 gap=109 rms=0.54  
 Locality: Slovakia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
SMOL	18.6	60	ePg	7:47:10.20	-0.29
			ePg	7:47:11.80	-0.22
ZST	27.2	197	ePg	7:47:11.80	-0.22
			eSg	47:15.60	-0.25
KRUC	92.4	319	ePg	7:47:23.60	-0.02
			ePg	7:47:24.50	0.19
SOP	96.3	210	ePg	7:47:24.50	0.19
			eSg	47:38.45	0.72
VRAC	107.7	335	ePg	7:47:26.40	0.05
CSKK	142.2	147	eSn	7:47:49.19	-1.06
MPLH	142.2	170	eSn	7:47:50.12	-0.14
PKST	144.0	155	eSn	7:47:50.06	-0.60
PKSG	145.2	143	eSn	7:47:53.16	2.23
MORC	151.7	9	ePn	7:47:32.70	0.17
PENC	169.8	115	eSn	7:47:57.92	1.55

460.

2015-12-11 time: 10:04:09.99 UTC ML= 2.0  
 lat: 48.746N lon: 17.161E h= 10.0 km  
 erh= 2.6km erz= 2.4km  
 nr= 5 gap=318 rms=0.61  
 Locality: Slovakia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
SOP	126.4	201	ePn	10:04:31.41	-0.10
			eSn	04:47.95	-0.34
MPLH	177.5	171	ePn	10:04:38.47	0.59
			eSn	05:00.50	0.86
PKST	177.8	158	eSn	10:04:58.54	-1.15
			ePn	10:04:55.64	2.15*

461.

2015-12-12 time: 1:13:30.51 UTC ML=-0.1  
 lat: 46.043N lon: 18.493E h= 0.9 km  
 erh= 1.0km erz=27.3km  
 nr= 8 gap=196 rms=0.18  
 Locality: Liptód  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSM	22.0	31	ePg	1:13:34.42	-0.03
			eSg	13:37.51	0.00
MORH	22.5	31	ePg	1:13:34.49	-0.05
			eSg	13:37.53	-0.14
PKSV	25.4	227	ePg	1:13:35.13	0.09
			eSg	13:38.42	-0.16
KOVH	30.8	279	ePg	1:13:36.45	0.43
			eSg	13:40.13	-0.19

462.

2015-12-13 time: 13:25:57.59 UTC ML= 1.6  
 lat: 46.148N lon: 16.470E h= 10.0 km  
 erh= 1.7km erz= 1.6km  
 nr= 25 gap=131 rms=0.43  
 Locality: Croatia  
 Comments:

sta	dist	azm	phase	hr mn sec	res
KOGS	37.4	333	ePgD	13:26:05.16	0.66
			eSg	26:09.66	-0.23
PTJ	48.3	235	ePgD	13:26:06.73	0.33
			eSg	26:12.78	-0.49

## Földrengés paraméterek

## Hypocenter Parameters

Station	Dist	Azm	Phase	hr	mn	sec	res
GOLS	67.2	257	iPg	13:26:09.95			0.23
			iSg		26:18.53		-0.65
GCIS	72.4	244	ePg	13:26:10.90			0.27
DOBS	77.3	270	iPg	13:26:11.32			-0.19
CESS	80.3	256	iPg	13:26:12.12			0.08
GROS	82.3	295	ePg	13:26:11.75			-0.64
CRES	86.3	245	iPg	13:26:13.23			0.13
LEGS	91.9	256	iPg	13:26:13.85			-0.25
PDKS	114.3	265	iPn	13:26:17.39			-0.20
PERS	117.4	298	iPn	13:26:17.61			-0.37
BOJS	118.7	233	iPn	13:26:18.93			0.79
KOVH	126.1	93	ePnD	13:26:18.85			-0.22
			eSn		26:33.64		-2.19*
VISS	132.1	253	iPn	13:26:20.21			0.40
VNDS	136.8	268	iPn	13:26:20.91			0.51
MPLH	140.0	36	ePn	13:26:20.72			-0.08
			eSn		26:40.14		1.24
PKSV	141.0	102	ePn	13:26:20.70			-0.22
PKSM	167.8	88	ePnD	13:26:23.73			-0.53
			eSn		26:42.22		-2.85*
MORH	168.0	87	ePnD	13:26:23.80			-0.49
			eSn		26:43.11		-2.01*

463.

2015-12-13 time: 13:27:11.59 UTC ML= 1.2  
lat: 46.126N lon: 16.519E h= 10.0 km  
erh= 2.1km erz= 3.1km  
nr= 6 gap=168 rms=0.48  
Locality: Croatia  
Comments:

sta	dist	azm	phase	hr	mn	sec	res
KOGS	41.3	330	ePgD	13:27:19.49			0.31
			eSg		27:24.00		-1.11
GOLS	70.4	259	iPg	13:27:24.57			0.29
DOBS	81.2	272	iPg	13:27:25.71			-0.48
KOVH	122.3	92	ePn	13:27:32.99			0.40
			eSn		27:47.93		-1.05

464.

2015-12-15 time: 1:26:25.94 UTC ML= 0.9  
lat: 47.662N lon: 18.026E h= 13.1 km  
erh= 2.9km erz= 1.6km  
nr= 14 gap=284 rms=0.45  
Locality: Bábolna  
Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	37.7	152	ePg	1:26:32.87			-0.19
			eSg		26:38.51		-0.11
PKSG	40.7	138	ePg	1:26:33.33			-0.25
			eSg		26:40.25		0.71
PKST	44.9	179	ePg	1:26:34.56			0.28
			eSg		26:40.10		-0.69
MPLH	65.9	214	ePg	1:26:38.02			0.08
			eSg		26:46.67		-0.63
TIH	85.4	187	eSg	1:26:53.90			0.51
MORH	167.6	164	ePn	1:26:52.54			0.35
			eSn		27:11.47		-1.19
PKSM	167.9	164	ePn	1:26:52.49			0.26
			eSn		27:11.63		-1.11
KOVH	175.1	178	eSn	1:27:17.64			3.31*

465.

2015-12-15 time: 1:49:37.53 UTC ML= 1.0  
lat: 47.686N lon: 17.998E h= 7.6 km  
erh= 4.1km erz= 2.3km  
nr= 15 gap=287 rms=0.64  
Locality: Ács  
Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	41.0	151	ePg	1:49:45.07			0.10
			eSg		49:50.58		-0.19
PKSG	44.1	138	ePg	1:49:45.35			-0.17
			eSg		49:52.16		0.41
PKST	47.6	177	ePg	1:49:45.65			-0.48
			eSg		49:52.18		-0.66
MPLH	67.0	211	ePg	1:49:49.32			-0.25
			eSg		49:58.81		-0.15
TIH	87.8	185	ePg	1:49:54.87			1.61
			eSg		50:05.06		-0.47
MORH	170.7	163	ePn	1:50:04.63			-0.24
			eSn		50:26.03		-0.17
PKSM	171.0	163	ePn	1:50:04.60			-0.32
			eSn		50:26.20		-0.08
KOVH	177.8	178	eSn	1:50:29.69			1.91

466.

2015-12-15 time: 17:55:31.85 UTC ML= 2.0  
lat: 47.651N lon: 18.001E h= 8.0 km  
erh= 1.0km erz= 1.2km  
nr= 39 gap= 58 rms=0.52  
Locality: Bábolna  
Comments: felt 4 EMS

sta	dist	azm	phase	hr	mn	sec	res
SRO	29.6	52	ePg	17:55:37.20			-0.13
CSKK	37.5	149	ePg	17:55:38.59			-0.10
			eSg		55:43.88		-0.15
PKSG	41.1	134	ePgD	17:55:39.07			-0.26
			eSg		55:45.51		0.35
PKST	43.6	177	ePg	17:55:39.27			-0.50
			eSg		55:45.92		-0.02
EGYH	56.7	243	ePgD	17:55:42.54			0.47
			eSg		55:50.79		0.75
MPLH	63.8	213	ePg	17:55:42.92			-0.40
			eSg		55:52.25		-0.02
BUD	79.2	104	ePg	17:55:45.68			-0.38
			eSg		55:55.17		-1.98
TIH	83.8	186	ePg	17:55:46.79			-0.10
			eSg		55:59.06		0.44
ZST	90.5	312	ePg	17:55:48.20			0.13
PENC	97.3	81	ePgD	17:55:50.05			0.76
			eSg		56:03.09		0.19
SMOL	105.0	336	ePg	17:55:50.40			-0.26
SOP	108.4	272	ePg	17:55:51.46			0.20
			eSg		56:03.57		-2.83*
PKS7	110.4	127	ePgC	17:55:51.90			0.29
			eSg		56:07.81		0.79
VYHS	112.6	34	ePn	17:55:51.20			-0.69
			eSn		56:04.80		-2.73*
PSZ	145.0	78	ePn	17:55:57.34			1.40
			eSn		56:14.91		0.18
IZAB	163.3	51	ePn	17:55:58.30			0.08
MORH	166.8	163	ePnC	17:55:58.23			-0.43
			eSn		56:17.21		-2.37
PKSM	167.2	163	ePnC	17:55:58.24			-0.47
			eSn		56:17.17		-2.49
KOVH	173.8	178	ePn	17:55:59.80			0.27
			eSn		56:23.47		2.34*
KOGS	188.6	225	ePnD	17:56:01.69			0.32
			eSn		56:23.14		-1.26
ARSA	192.1	257	ePn	17:56:02.10			0.29
KRUC	197.0	323	ePn	17:56:02.10			-0.32
CRES	281.0	224	ePn	17:56:12.70			-0.19

467.

2015-12-15 time: 23:39:40.83 UTC ML= 1.1  
lat: 46.127N lon: 16.495E h= 10.0 km  
erh= 4.2km erz= 5.7km  
nr= 14 gap=147 rms=0.63  
Locality: Croatia  
Comments:

## Hypocenter Parameters

## Földrengés paraméterek

sta	dist	azm	phase	hr mn sec	res
KOGS	40.4	332	iPgD	23:39:48.33	0.07
			iSg	39:53.42	-0.64
PTJ	48.6	239	ePg	23:39:49.72	0.03
			eSg	39:55.37	-1.23
GOLS	68.6	259	iSg	23:40:02.64	-0.21
GCIS	73.1	247	iPg	23:39:54.11	0.10
			iSg	40:04.36	0.07
DOBS	79.3	272	ePg	23:39:55.69	0.59
KOVH	124.2	92	ePn	23:40:01.75	-0.32
			eSn	40:17.42	-1.21
MPLH	140.9	35	ePn	23:40:04.73	0.58
			eSn	40:23.50	1.16
PKSM	166.0	87	ePn	23:40:10.47	3.18
			eSn	40:25.54	-2.39

468.

2015-12-17 time: 1:59:36.11 UTC ML=-0.2  
 lat: 47.374N lon: 18.275E h= 3.2 km  
 erh= 0.2km erz= ---km  
 nr= 5 gap=202 rms=0.05  
 Locality: Csókakő  
 Comments:

sta	dist	azm	phase	hr mn sec	res
CSKK	1.6	223	ePg	1:59:36.68	-0.07
			eSg	59:37.28	0.03
PKSG	8.9	77	ePgD	1:59:37.78	-0.03
			eSg	59:39.22	0.09
PKST	22.2	235	eSg	1:59:43.29	0.04

469.

2015-12-17 time: 8:52:10.04 UTC ML= 1.5  
 lat: 47.897N lon: 19.381E h= 0.0 km  
 erh= 6.0km erz= \*\*\*km  
 nr= 6 gap=125 rms=1.05  
 Locality: Becske  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
PENC	14.0	212	ePgC	8:52:12.24	-0.29
			eSg	52:15.59	1.11
PSZ	38.5	86	ePgD	8:52:16.36	-0.55
			eSg	52:22.07	-0.21
VYHS	77.7	329	ePg	8:52:25.70	1.78
			eSg	52:33.00	-1.75

470.

2015-12-17 time: 10:20:49.93 UTC ML= 1.6  
 lat: 48.605N lon: 20.766E h= 0.0 km  
 erh= 9.8km erz= 7.0km  
 nr= 8 gap=163 rms=0.61  
 Locality: Slovakia  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	24.7	237	ePg	10:20:54.30	-0.05
			eSg	20:58.20	0.40
CRVS	60.9	57	ePg	10:21:01.00	0.20
			eSg	21:09.10	-0.18
PSZ	100.1	220	ePg	10:21:08.77	0.97
			eSg	21:20.79	-0.95
VYHS	143.0	265	ePn	10:21:14.70	-0.10
			eSn	21:32.90	-1.30

471.

2015-12-17 time: 10:50:27.81 UTC ML= 1.6  
 lat: 48.118N lon: 22.892E h= 8.0 km  
 erh= 2.9km erz= 2.1km  
 nr= 16 gap=135 rms=0.75  
 Locality: Ukraine  
 Comments:

sta	dist	azm	phase	hr mn sec	res
TRPA	26.3	273	ePg	10:50:33.16	0.44
			eSg	50:37.37	0.82
BMR	67.1	138	PgC	10:50:39.60	-0.27
			Sg	50:48.10	-1.18
KOLS	101.5	333	ePg	10:50:46.00	0.00
			eSg	50:59.30	-0.88
CRVS	137.0	310	ePn	10:50:50.90	-0.01
			eSn	51:08.70	-0.22
DRGR	148.1	185	PnD	10:50:54.21	1.93
			Sn	51:10.60	-0.77
BURA	182.7	108	PnC	10:50:56.77	0.17
			Sn	51:20.00	0.94
KECS	183.1	283	ePn	10:50:57.10	0.45
			eSn	51:18.20	-0.94
PSZ	224.7	264	ePn	10:51:01.02	-0.82
			eSn	51:26.52	-1.86

472.

2015-12-18 time: 9:18:17.55 UTC ML= 1.5  
 lat: 48.429N lon: 20.815E h= 0.0 km  
 erh= 0.7km erz= 0.8km  
 nr= 5 gap=306 rms=0.21  
 Locality: Meszes  
 Comments: probably explosion

sta	dist	azm	phase	hr mn sec	res
KECS	25.1	284	ePg	9:18:22.20	0.17
			eSg	18:25.50	-0.03
PSZ	88.9	230	ePg	9:18:33.64	0.21
			eSg	18:45.65	-0.17
VYHS	146.5	273	ePn	9:18:42.50	-0.35

473.

2015-12-18 time: 11:44:25.28 UTC ML= 0.6  
 lat: 47.341N lon: 18.626E h= 0.3 km  
 erh= 0.8km erz=39.6km  
 nr= 5 gap=331 rms=0.03  
 Locality: Vereb  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	18.6	288	ePg	11:44:28.61	0.00
			eSg	44:31.18	-0.03
CSKK	27.7	275	ePg	11:44:30.25	0.02
			eSg	44:34.14	0.05
PKST	45.7	258	eSg	11:44:39.76	-0.04

474.

2015-12-19 time: 16:01:10.84 UTC ML=-0.1  
 lat: 47.353N lon: 18.353E h= 13.2 km  
 erh= 0.3km erz= 0.1km  
 nr= 5 gap=214 rms=0.00  
 Locality: Zámoly  
 Comments:

sta	dist	azm	phase	hr mn sec	res
PKSG	5.2	33	ePg	16:01:13.38	0.00
CSKK	7.1	279	ePgD	16:01:13.52	0.00
			eSg	01:15.61	0.00
PKST	26.3	247	ePgD	16:01:16.09	0.00
			eSg	01:20.20	0.01

## Földrengés paraméterek

## Hypocenter Parameters

475.  

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2015-12-22 time: 7:53:18.17 UTC ML= 1.6  
lat: 48.701N lon: 19.712E h= 10.0 km  
erh= 3.1km erz= 6.1km  
nr= 9 gap=133 rms=0.66  
Locality: Slovakia  
Comments:  
  
sta dist azm phase hr mn sec res  
IZAB 14.7 180 ePg 7:53:22.00 0.65  
eSg 53:23.90 0.07  
LANS 53.1 340 eSg 7:53:35.00 -0.34  
KECS 62.0 113 ePg 7:53:29.30 -0.08  
eSg 53:36.30 -1.83  
VYHS 68.6 250 ePg 7:53:30.90 0.35  
eSg 53:38.80 -1.41  
PSZ 88.1 171 ePg 7:53:34.41 0.41  
eSg 53:44.75 -1.60

476.  

---

2015-12-22 time: 8:51:26.16 UTC ML= 1.0  
lat: 45.849N lon: 18.419E h= 0.0 km  
erh= 1.3km erz= 193km  
nr= 7 gap=266 rms=0.13  
Locality: Nagyharsány  
Comments: probably explosion  
  
sta dist azm phase hr mn sec res  
PKSV 13.7 289 ePg 8:51:28.39 -0.22  
eSg 51:30.69 0.17  
KOVH 36.3 317 eSg 8:51:37.57 -0.14  
PKSM 43.8 23 ePgC 8:51:34.11 0.12  
eSg 51:40.08 -0.02  
MORH 44.3 23 ePgC 8:51:34.16 0.08  
eSg 51:40.16 -0.10

477.  

---

2015-12-23 time: 9:50:29.11 UTC ML= 1.6  
lat: 48.618N lon: 20.669E h= 0.0 km  
erh= 2.6km erz= 2.3km  
nr= 9 gap=273 rms=0.37  
Locality: Slovakia  
Comments: probably explosion  
  
sta dist azm phase hr mn sec res  
KECS 20.1 222 ePg 9:50:32.40 -0.30  
eSg 50:36.40 0.89  
IZAB 70.7 266 eSg 9:50:51.60 0.02  
PSZ 96.7 216 ePg 9:50:46.61 0.24  
eSg 50:59.43 -0.41  
LANS 106.2 304 ePg 9:50:48.20 0.14  
eSg 51:02.90 0.05  
VYHS 136.0 264 ePn 9:50:53.20 0.11  
eSn 51:11.00 -0.80

478.  

---

2015-12-23 time: 21:22:37.27 UTC ML= 2.9  
lat: 47.643N lon: 17.981E h= 3.6 km  
erh= 0.9km erz= 1.0km  
nr= 74 gap= 32 rms=0.71  
Locality: Bábolna  
Comments: felt 5 EMS  
  
sta dist azm phase hr mn sec res  
SRO 31.3 53 ePg 21:22:42.80 -0.09  
eSg 22:48.00 0.72  
CSKK 37.6 146 ePgD 21:22:43.77 -0.24  
eSg 22:49.90 0.64  
PKSG 41.6 132 ePg 21:22:44.09 -0.64

eSg 22:51.05 0.51  
ePg 21:22:44.61 -0.34  
eSg 22:51.81 0.86  
ePgD 21:22:47.89 0.78  
ePgD 21:22:48.32 -0.09  
BUD 80.4 103 ePgD 21:22:51.50 -0.15  
eSg 23:02.47 -0.39  
TIH 82.9 185 ePg 21:22:51.80 -0.28  
eSg 23:03.09 -0.55  
ZST 90.0 313 ePg 21:22:53.60 0.25  
eSg 23:06.50 0.60  
MODS 96.7 327 ePg 21:22:54.20 -0.36  
eSg 23:07.50 -0.54  
PENC 98.9 80 ePg 21:22:55.06 0.11  
eSg 23:08.72 -0.02  
SOP 107.0 272 ePg 21:22:56.60 0.21  
eSg 23:09.45 -1.85  
PKS7 111.0 127 ePg 21:22:57.54 0.43  
eSg 23:12.33 -0.25  
DBSH 113.0 117 ePg 21:22:57.80 0.35  
eSg 23:12.85 -0.35  
VYHS 114.1 34 ePg 21:22:57.00 -0.65  
eSg 23:10.50 -3.05  
PKS9 119.6 169 ePgD 21:22:58.68 0.05  
eSg 23:14.37 -0.92  
PSZ 146.6 78 PnD 21:23:02.60 0.48  
Sn 23:20.50 -1.00  
PKS2 158.5 144 ePn 21:23:03.94 0.34  
eSn 23:25.29 1.14  
CONA 162.0 281 Pn 21:23:03.90 -0.14  
Sn 23:24.45 -0.47  
IZAB 165.0 51 ePn 21:23:03.80 -0.61  
eSn 23:23.80 -1.78  
PKSN 165.1 120 ePn 21:23:06.76 2.34  
eSn 23:29.80 4.20\*  
MORH 166.5 162 ePnC 21:23:03.86 -0.74  
eSn 23:22.82 -3.10  
PKSM 166.9 162 ePnC 21:23:03.93 -0.71  
eSn 23:22.65 -3.35\*  
PKS6 167.0 134 ePn 21:23:05.21 0.55  
eSn 23:25.20 -0.82  
KOVH 173.1 177 ePnC 21:23:08.23 2.81  
eSn 23:29.11 1.74  
BSZH 176.5 102 ePn 21:23:08.37 2.53  
eSn 23:29.27 1.14  
KOGS 187.0 225 ePn 21:23:06.94 -0.21  
eSn 23:31.54 1.08  
ARSA 190.5 257 Pn 21:23:07.62 0.03  
Sn 23:30.18 -1.06  
PKSV 196.1 174 ePnD 21:23:08.83 0.53  
eSn 23:29.48 -3.02  
LANS 200.5 33 ePn 21:23:09.10 0.26  
eSn 23:34.00 0.53  
KECS 208.7 63 ePn 21:23:10.40 0.53  
eSn 23:37.70 2.41  
VRAC 211.7 331 PnD 21:23:10.03 -0.21  
GROS 229.7 235 iPn 21:23:11.99 -0.49  
MORC 239.5 352 PnD 21:23:13.65 -0.05  
OKC 244.3 3 ePn 21:23:14.40 0.09  
eSn 23:41.10 -2.09  
PERS 244.5 243 iPn 21:23:14.03 -0.29  
SOKA 248.0 244 Pn 21:23:14.60 -0.16  
Sn 23:43.50 -0.51  
AMBH 253.4 125 PnC 21:23:15.77 0.33  
Sn 23:44.40 -0.81  
MOA 279.6 275 Pn 21:23:19.25 0.55  
Sn 23:50.40 -0.61  
KRLC 284.5 342 ePn 21:23:19.70 0.39  
OBKA 289.6 244 Pn 21:23:20.17 0.22  
Sn 23:51.97 -1.27  
FRGS 312.2 153 PnC 21:23:22.45 -0.32\*  
Sn 23:56.10 -2.16\*  
SIRR 319.0 119 PnC 21:23:22.98 -0.64\*  
DPC 324.6 338 ePn 21:23:24.80 0.48\*  
TRPA 345.2 81 PnC 21:23:26.22 -0.66\*

## Hypocenter Parameters

## Földrengés paraméterek

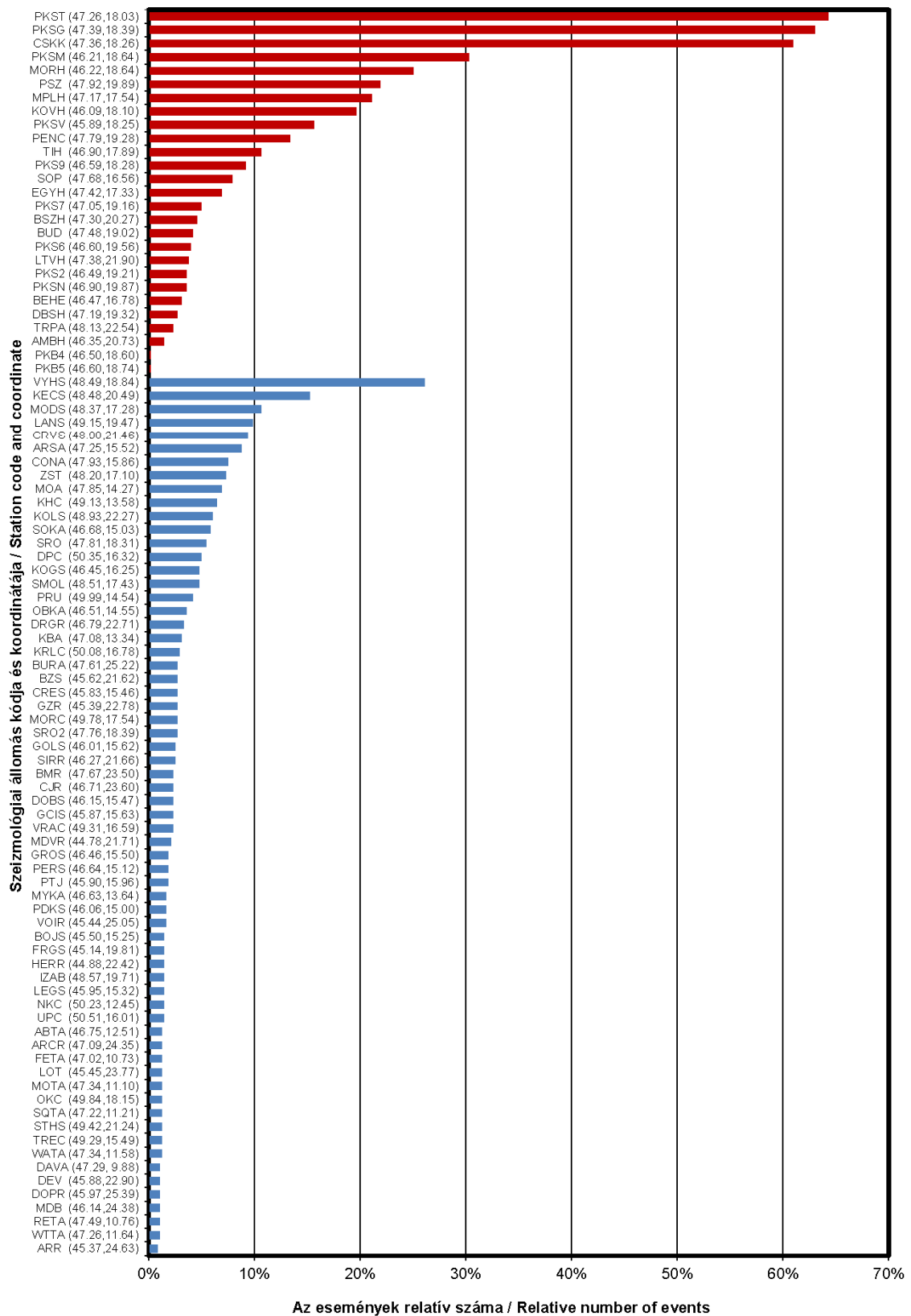
MYKA	348.0	251	Pn	21:23:27.36	0.13*
			Sn	24:04.98	-1.21*
UPC	349.5	336	ePn	21:23:28.00	0.58*
KBA	355.9	260	Pn	21:23:28.45	0.24*
			Sn	24:06.75	-1.20*
BZS	358.1	129	PnC	21:23:28.18	-0.31*
PRU	363.1	316	ePn	21:23:28.80	-0.31*
			eSn	24:05.50	-4.05*
KHC	365.7	297	ePn	21:23:29.90	0.46*
			eSn	24:07.80	-2.33*
DRGR	370.6	105	PnD	21:23:30.07	0.02*
			Sn	24:10.50	-0.71*
ABTA	426.3	256	Pn	21:23:37.23	0.24*
			Sn	24:22.97	-0.60*
MDVR	429.1	138	PnC	21:23:36.53	-0.81*
CJR	438.2	104	PnC	21:23:38.39	-0.08*
GZR	444.9	124	PnD	21:23:39.80	0.48*
HERR	459.5	132	PnD	21:23:41.58	0.44*
			Sn	24:29.90	-1.05*
WTTA	480.4	265	Pn	21:23:43.64	-0.09*
			Sn	24:34.28	-1.30*
WATA	483.9	266	Pn	21:23:43.54	-0.64*
			Sn	24:33.73	-2.63*
SQTA	513.1	265	Pn	21:23:47.06	-0.76*
			Sn	24:39.37	-3.48*
MOTA	519.3	266	Pn	21:23:48.89	0.30*
			Sn	24:42.00	-2.23*
RETA	543.5	268	Pn	21:23:51.02	-0.59*
			Sn	24:46.80	-2.80*
BURA	543.8	90	PnC	21:23:52.23	0.58*
			Sn	24:49.50	-0.17*
FETA	552.5	263	Pn	21:23:52.38	-0.35*
			Sn	24:48.80	-2.79*
VOIR	595.1	114	PnC	21:23:58.55	0.51*
DAVA	612.1	266	Pn	21:23:59.97	-0.19*
			Sn	24:59.00	-5.81*

479.

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2015-12-28 time: 21:01:33.86 UTC ML= 0.8  
 lat: 47.287N lon: 18.221E h= 6.4 km  
 erh= 2.5km erz= 2.4km  
 nr= 14 gap=122 rms=0.38  
 Locality: Kincsesbánya  
 Comments:

sta	dist	azm	phase	hr	mn	sec	res
CSKK	9.0	19	ePgD	21:01:35.67			-0.16
			eSg	01:37.29			-0.07
PKST	14.5	258	ePgD	21:01:36.23			-0.45
			eSg	01:38.27			-0.61
PKSG	17.3	48	ePg	21:01:37.12			-0.04
			eSg	01:40.48			0.75
TIH	49.7	210	ePg	21:01:43.20			0.40
			eSg	01:49.73			-0.05
MPLH	53.2	256	ePg	21:01:43.70			0.27
			eSg	01:51.09			0.20
MORH	123.4	165	ePn	21:01:55.47			0.01
			eSn	02:11.60			-0.71
PKSM	123.7	165	ePn	21:01:56.04			0.54
			eSn	02:11.39			-1.00



3.4. ábra Az egyes állomások részvétele a hipocentrum meghatározásban  
 Figure 3.4. Contribution of individual stations to the hypocenter determination

## 4.

### JELENTŐS FÖLDRENGÉSEK 2015-BEN (Magyarországon érezhető földrengések)

2015. január 1.	–	Nógrádmarcfal
2015. január 1.	–	Illy
2015. március 29.	–	Alsózsolca
2015. május 11.	–	Garbolc
2015. augusztus 5.	–	Váraszó
2015. december 15.	–	Bábolna
2015. december 23.	–	Bábolna

#### 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 2015

(Earthquakes felt in Hungary)

1 January 2015	–	Nógrádmarcal
1 January 2015	–	Iliny
29 March 2015	–	Alsózsolca
11 May 2015	–	Garbolc
5 August 2015	–	Váraszó
15 December 2015	–	Bábolna
23 December 2015	–	Bábolna

#### **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*)

**2015. január 1. - Nógrádmarcfal / 1 January 2015 - Nógrádmarcfal****FÉSZEKPARAMÉTEREK / HYPOCENTER PARAMETERS**

Dátum / Date:	2015/01/01
Kipattanási idő / Origin Time:	06:43:23.39 UTC
Szélesség és hosszúság / Latitude and Longitude:	48.029 N 19.381 E (S.D. 1.5 km)
Mélység / Depth:	3.5 km (S.D. 1.5 km)
Magnitúdó / Magnitude:	3.7 ML
Maximális intenzitás / Maximum Intensity:	5-6 EMS

**LEÍRÁS**

Január 1-én reggel 3.7 ML magnitúdójú földrengés pattant ki Nógrádmarcfal térségében. A rengés intenzitása az epicentrum térségében meghaladta az 5 EMS fokot, néhány településen enyhébb épületkárok is keletkeztek. Elsősorban gyengébb, régebbi épületekben vakolatrepedések keletkeztek, kémények sérültek. A földrengés nagy területen volt érezhető.

A rengés számított intenzitás eloszlását a 4.1. ábra mutatja.

$I \geq 3$  (gyenge érzhetőség) becsült területe 11250 km<sup>2</sup>

$I \geq 4$  (enyhe érzhetőség) becsült területe 2757 km<sup>2</sup>

$I \geq 5$  (mérsékelt érzhetőség) becsült területe 611 km<sup>2</sup>

**DISCUSSION**

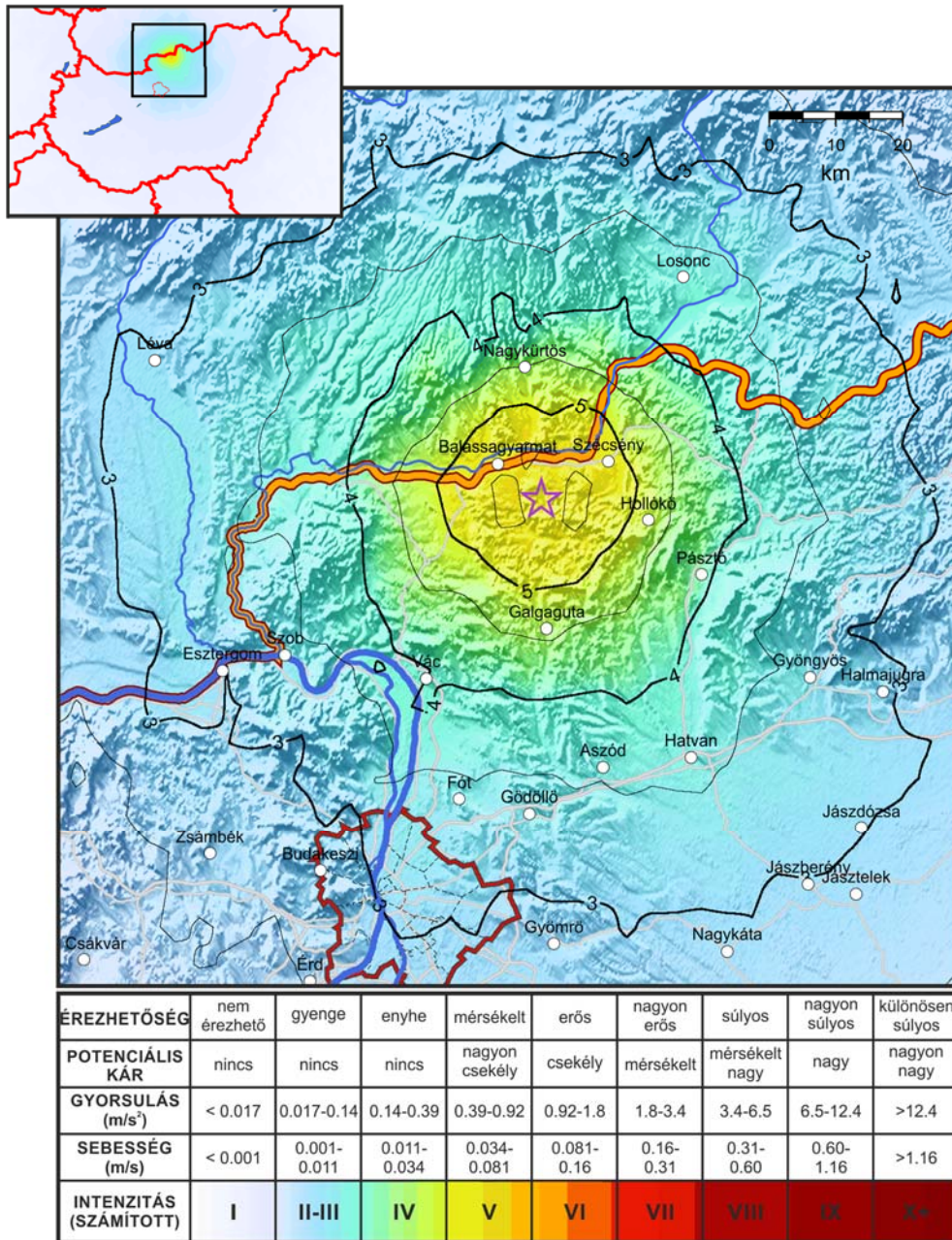
In the morning of January 1<sup>st</sup>, a 3.7 ML magnitude earthquake occurred in the surroundings of Nógrádmarcfal. Slight building damages (cracks in walls, and damage of chimneys) were reported from the epicentral area mostly at poorer quality older buildings. The maximum intensity was estimated higher than 5 EMS at the epicentral area. The earthquake was felt in a large area.

Calculated intensity distribution of the event is shown in Figure 4.1.

Estimated area of  $I \geq 3$  (perceived shaking: weak) is about 11250 km<sup>2</sup>

Estimated area of  $I \geq 4$  (perceived shaking: light) is about 2750 km<sup>2</sup>

Estimated area of  $I \geq 5$  (perceived shaking: moderate) is about 611 km<sup>2</sup>



4.1. ábra A 2015. január 1-i, nógrádmarci földrengés (06:43 UTC) számított intenzitás eloszlása

Figure 4.1. Instrumental intensity distribution of the Nógrádmarcali earthquake 1<sup>st</sup> January 2015 (06:43 UTC)

**2015. január 1. - Iliny / 1 January 2015 - Iliny****FÉSZKEPARAMÉTEREK / HYPOCENTER PARAMETERS**

Dátum / Date:	2015/01/01
Kipattanási idő / Origin Time:	10:45:56.93 UTC
Szélesség és hosszúság / Latitude and Longitude:	48.032 N 19.396 E (S.D. 0.9 km)
Mélység / Depth:	4.0 km (S.D. 1.0 km)
Magnitúdó / Magnitude:	3.9 ML
Maximális intenzitás / Maximum Intensity:	5-6 EMS

**LEÍRÁS**

Január 1-én délelőtt, néhány órával az előző rengés után újabb, 3.9 ML magnitúdójú földrengést éreztek Iliny térségében. A rengés intenzitása 5-6 EMS fokra becsülhető az epicentrum környezetében. Néhány településen enyhébb épületkárok is keletkeztek. Elsősorban gyengébb, régebbi épületekben vakolatrepedések keletkeztek, kémények sérültek. A földrengés nagy területen volt érezhető.

A rengés számított intenzitás eloszlását a 4.2. ábra mutatja.

$I \geq 3$  (gyenge érzékettség) becsült területe 14520 km<sup>2</sup>

$I \geq 4$  (enyhe érzékettség) becsült területe 3500 km<sup>2</sup>

$I \geq 5$  (mérsékelt érzékettség) becsült területe 768 km<sup>2</sup>

**DISCUSSION**

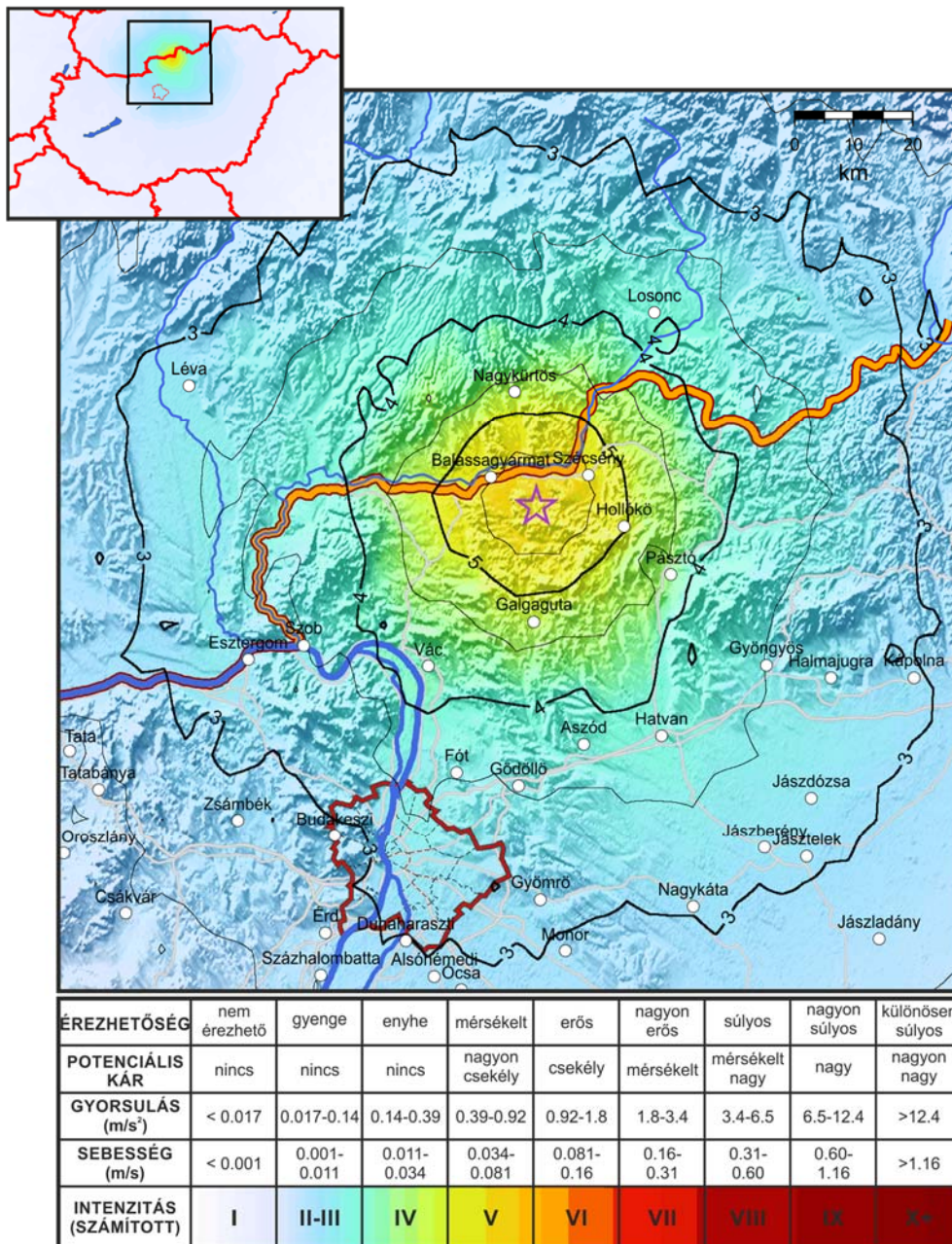
In morning of January 1<sup>st</sup>, just a few hours after the previous earthquake, a 3.9 ML magnitude earthquake was felt again at Iliny area. The maximum intensity was estimated approximating 5-6 EMS. Slight building damages (cracks in walls, and damage of chimneys) were reported from the epicentral area mostly at poorer quality older buildings. The earthquake was felt in a large area.

Calculated intensity distribution of the event is shown in Figure 4.2.

Estimated area of  $I \geq 3$  (perceived shaking: weak) is about 14520 km<sup>2</sup>

Estimated area of  $I \geq 4$  (perceived shaking: light) is about 3500 km<sup>2</sup>

Estimated area of  $I \geq 5$  (perceived shaking: moderate) is about 768 km<sup>2</sup>



4.2. ábra A 2015. január 1-i, illyi földrengés (10:45 UTC) számított intenzitás eloszlása

Figure 4.2. Instrumental intensity distribution of the Ilyi earthquake 1<sup>st</sup> January 2015 (10:45 UTC)

**2015. március 29. - Alsózsolca / 29 March 2015 - Alsózsolca****FÉSZÉKPARAMÉTEREK / HYPOCENTER PARAMETERS**

Dátum / Date:	2015/03/29
Kipattanási idő / Origin Time:	15:39:16.66 UTC
Szélesség és hosszúság / Latitude and Longitude:	48.073 N 20.886 E (S.D. 2.0 km)
Mélység / Depth:	0.5 km (S.D. 2.1 km)
Magnitúdó / Magnitude:	3.1 ML
Maximális intenzitás / Maximum Intensity:	5 EMS

**LEÍRÁS**

Március 29-én délután Miskolc – Alsózsolca környékén volt érezhető (5 EMS) egy 3.1 ML magnitúdójú földrengés. A földmozgás elég nagy területen volt érezhető az epicentrum környezetében. Az epicentrum közvetlen környezetéből kisebb, nem jelentős épületkárokat is jeleztek, jellemzően vakolatrepedések fordultak elő. Néhány éve, 2010. év folyamán legalább 16 kis-közepes földrengés volt ugyanezen a környéken, melyek közül hatot a lakosság is érzett. A rengés számított intenzitás eloszlását a 4.3. ábra mutatja.

$I \geq 3$  (gyenge érzhetőség) becsült területe 5944 km<sup>2</sup>

$I \geq 4$  (enyhe érzhetőség) becsült területe 1607 km<sup>2</sup>

$I \geq 5$  (mérsékelt érzhetőség) becsült területe 354 km<sup>2</sup>

**DISCUSSION**

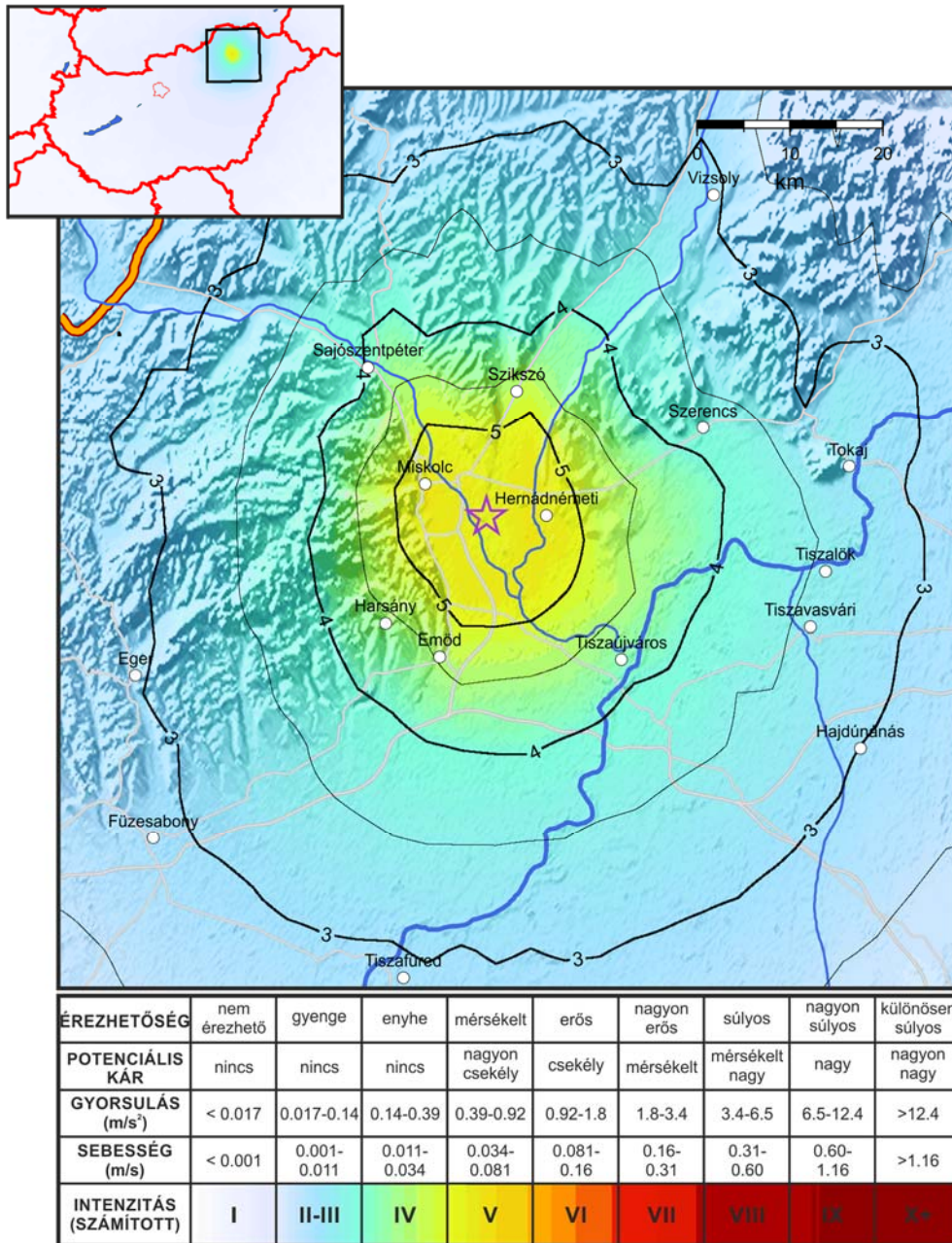
In the afternoon of March 29<sup>th</sup>, a 3.1 M<sub>L</sub> magnitude earthquake was felt in a relatively large area at Miskolc – Alsózsolca. Slight building damages (cracks in walls, and damage of chimneys) were reported from the epicentral area mostly at poorer quality older buildings. A few years ago, in 2010, six earthquake was felt and more than 16 smaller size events was located at the same area.

Calculated intensity distribution of the event is shown in Figure 4.3.

Estimated area of  $I \geq 3$  (perceived shaking: weak) is about 5944 km<sup>2</sup>

Estimated area of  $I \geq 4$  (perceived shaking: light) is about 1607 km<sup>2</sup>

Estimated area of  $I \geq 5$  (perceived shaking: moderate) is about 354 km<sup>2</sup>



4.3. ábra A 2015. március 29-i, alsószolcai földrengés (15:39 UTC) számított intenzitás eloszlása

Figure 4.3. Instrumental intensity distribution of the Alsószolca earthquake 29<sup>th</sup> March 2015 (15:39 UTC)

**2015. május 11. - Garbolc / 11 May 2015 - Garbolc****FÉSZÉKPARAMÉTEREK / HYPOCENTER PARAMETERS**

Dátum / Date:	2015/05/11
Kipattanási idő / Origin Time:	05:00:27.11 UTC
Szélesség és hosszúság / Latitude and Longitude:	47.942 N 22.928 E (S.D. 2.1 km)
Mélység / Depth:	5.2 km (S.D. 2.1 km)
Magnitúdó / Magnitude:	3.2 ML
Maximális intenzitás / Maximum Intensity:	5 EMS

**LEÍRÁS**

Május 11-én, helyi idő szerint reggel 7:00-kor keletkezett földrengés a magyar – román - ukrán határ találkozásának térségében, Szabolcs-Szatmár-Bereg megyében, Garbolc-Újberek közelében. A földmozgás mérete 3.2 volt a Richter-féle skálán. A földrengést az epicentrum környezetében a lakosság érezte, károk nem keletkeztek.

A rengés számított intenzitás eloszlását a 4.4. ábra mutatja.

$I \geq 3$  (gyenge érzhetőség) becsült területe 6460 km<sup>2</sup>

$I \geq 4$  (enyhe érzhetőség) becsült területe 2000 km<sup>2</sup>

$I \geq 5$  (mérsékelt érzhetőség) becsült területe 431 km<sup>2</sup>

**DISCUSSION**

In the morning of May 11<sup>th</sup>, a 3.2 ML magnitude event was felt at Garbolc-Újberek, at the Hungarian – Romanian – Ukrainian border region. The earthquake was widely felt but no damage was reported.

again 4 EMS at Iliny and surroundings. The earthquake was one of the felt aftershocks of the January 19<sup>th</sup> earthquake.

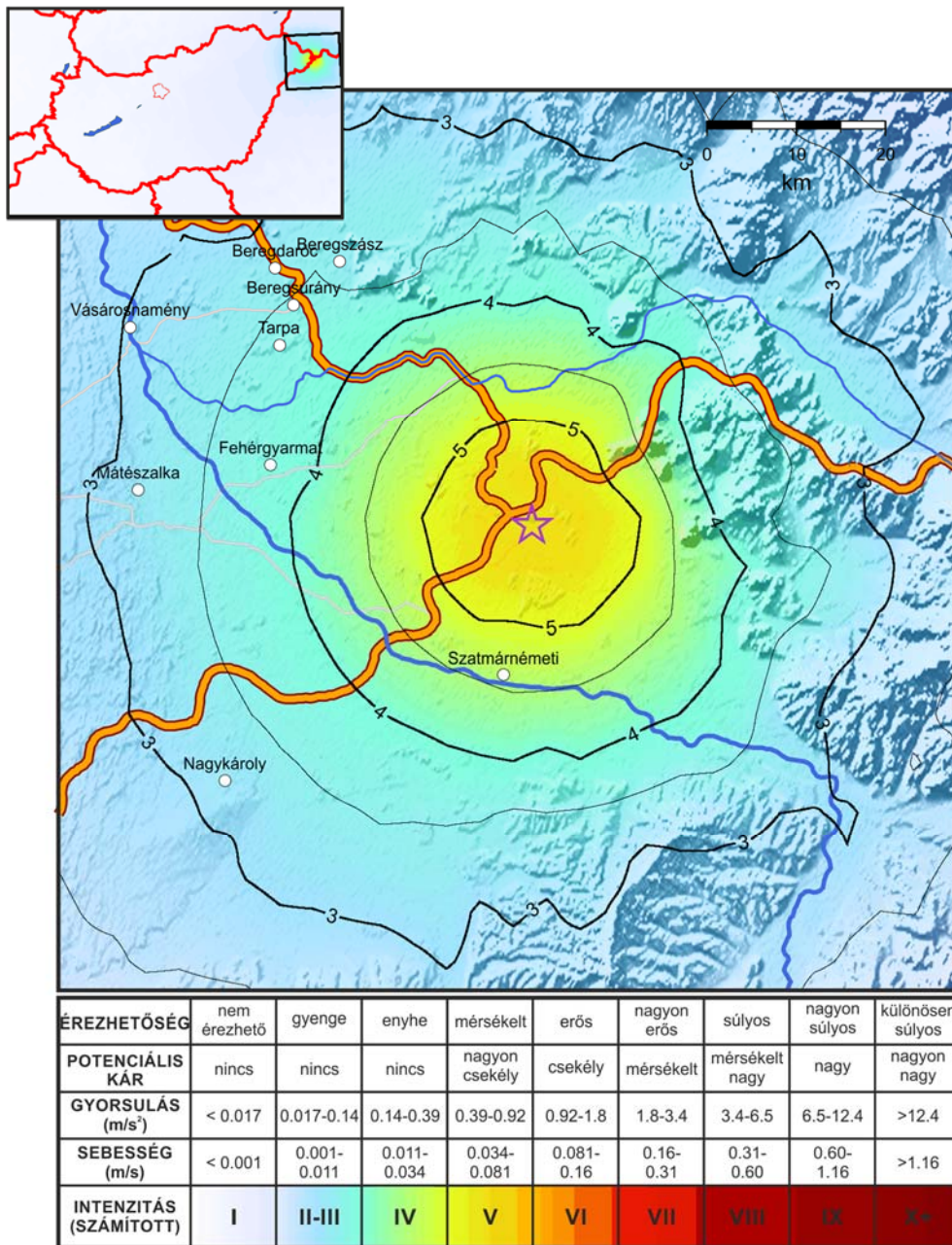
Calculated intensity distribution of the event is shown in Figure 4.4.

Estimated area of  $I \geq 3$  (perceived shaking: weak) is about 6460 km<sup>2</sup>

Estimated area of  $I \geq 4$  (perceived shaking: light) is about 2000 km<sup>2</sup>

Estimated area of  $I \geq 5$  (perceived shaking: moderate) is about 431 km<sup>2</sup>





4.4. ábra A 2015. május 11-i, garbolci földrengés (05:00 UTC) számított intenzitás eloszlása

Figure 4.4. Instrumental intensity distribution of the Garboldi earthquake 11<sup>th</sup> May 2015 (05:00 UTC)

**2015. augusztus 5. - Váraszó / 5 August 2015 - Váraszó****FÉSZKEPARAMÉTEREK / HYPOCENTER PARAMETERS**

Dátum / Date:	2016/08/05
Kipattanási idő / Origin Time:	12:17:17.16 UTC
Szélesség és hosszúság / Latitude and Longitude:	48.059 N 20.110 E (S.D. 4.2 km)
Mélység / Depth:	1.4 km (S.D. 4.2 km)
Magnitúdó / Magnitude:	2.5 ML
Maximális intenzitás / Maximum Intensity:	5 EMS

**LEÍRÁS**

Augusztus 5-én délután ismét Heves megyében, Váraszó – Pétervására – Garbolc környékén éreztek földrengést. A 2.5 ML magnitúdójú rengés maximális intenzitása 5 EMS körül volt.

A rengés számított intenzitás eloszlását a 4.5. ábra mutatja.

$I \geq 3$  (gyenge érzhetőség) becsült területe 2471 km<sup>2</sup>

$I \geq 4$  (enyhe érzhetőség) becsült területe 651 km<sup>2</sup>

$I \geq 5$  (mérsékelt érzhetőség) becsült területe 61 km<sup>2</sup>

**DISCUSSION**

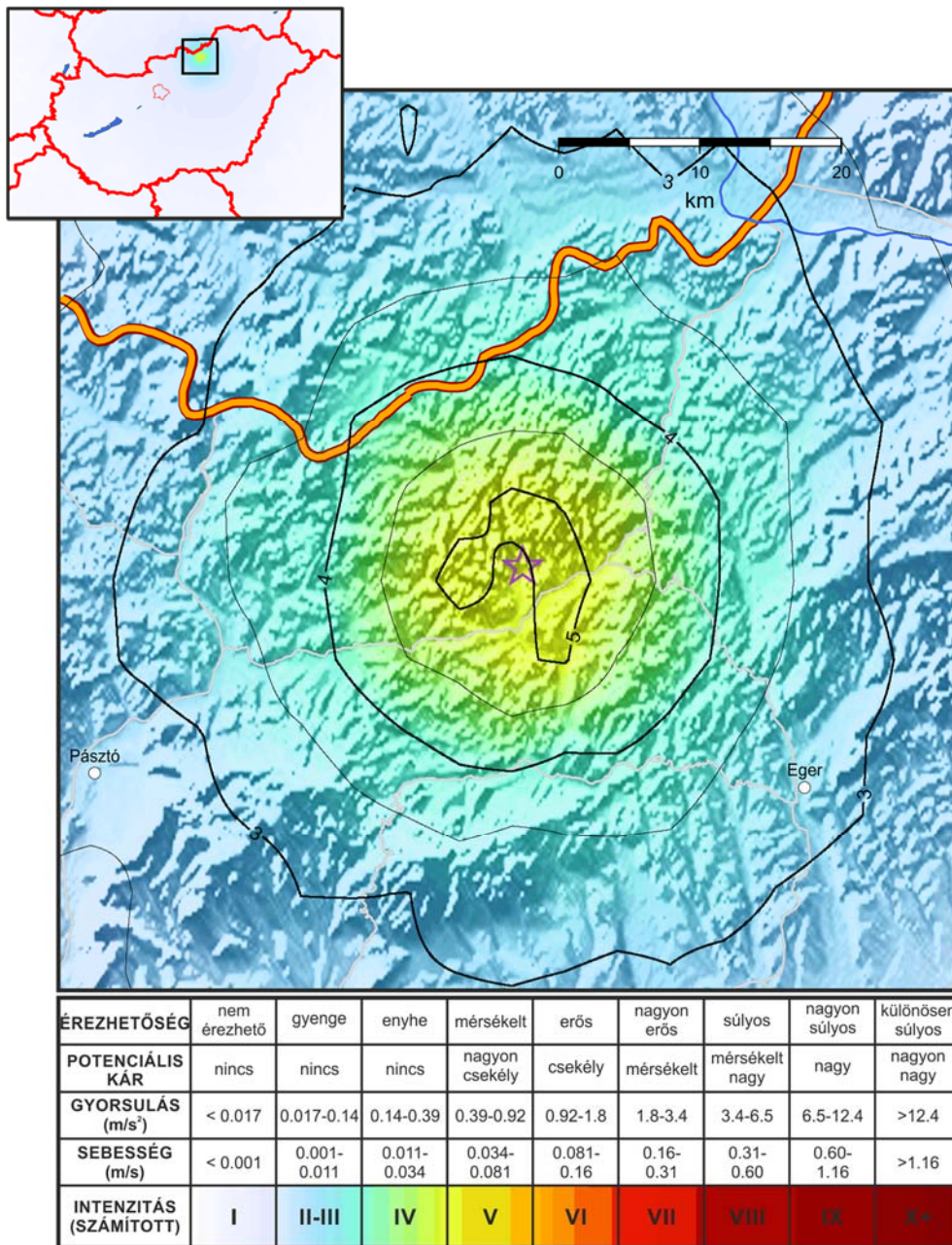
In the afternoon of August 5<sup>th</sup>, a 2.5 ML magnitude earthquake was felt again and reported (5 EMS) from Váraszó – Pétervására – Garbolc area.

Calculated intensity distribution of the event is shown in Figure 4.5.

Estimated area of  $I \geq 3$  (perceived shaking: weak) is about 2471 km<sup>2</sup>

Estimated area of  $I \geq 4$  (perceived shaking: light) is about 651 km<sup>2</sup>

Estimated area of  $I \geq 5$  (perceived shaking: moderate) is about 61 km<sup>2</sup>



4.5. ábra A 2015. augusztus 5-i, váraszói földrengés (12:17UTC) számított intenzitás eloszlása

Figure 4.5. Instrumental intensity distribution of the Váraszó earthquake 5<sup>th</sup> August 2015 (12:17 UTC)

**2015. december 15. - Bábolna / 15 December 2015 - Bábolna****FÉSZKEPARAMÉTEREK / HYPOCENTER PARAMETERS**

Dátum / Date:	2015/12/15
Kipattanási idő / Origin Time:	17:55:31.85 UTC
Szélesség és hosszúság / Latitude and Longitude:	47.615 N 18.001 E (S.D. 1.0 km)
Mélység / Depth:	8.0 km (S.D. 1.2 km)
Magnitúdó / Magnitude:	2.0 ML
Maximális intenzitás / Maximum Intensity:	4 EMS

**LEÍRÁS**

Az év utolsó napjaiban, december 15-én és 23-án Bábolna környékén két rengés (2.0 M<sub>L</sub> és 2.9 M<sub>L</sub>) volt érezhető 4 EMS és 5 EMS epicentrális intenzitással.

A rengés számított intenzitás eloszlását a 4.6. ábra mutatja.

$I \geq 3$  (gyenge érzhetőség) becsült területe 1637 km<sup>2</sup>

$I \geq 4$  (enyhe érzhetőség) becsült területe 333 km<sup>2</sup>

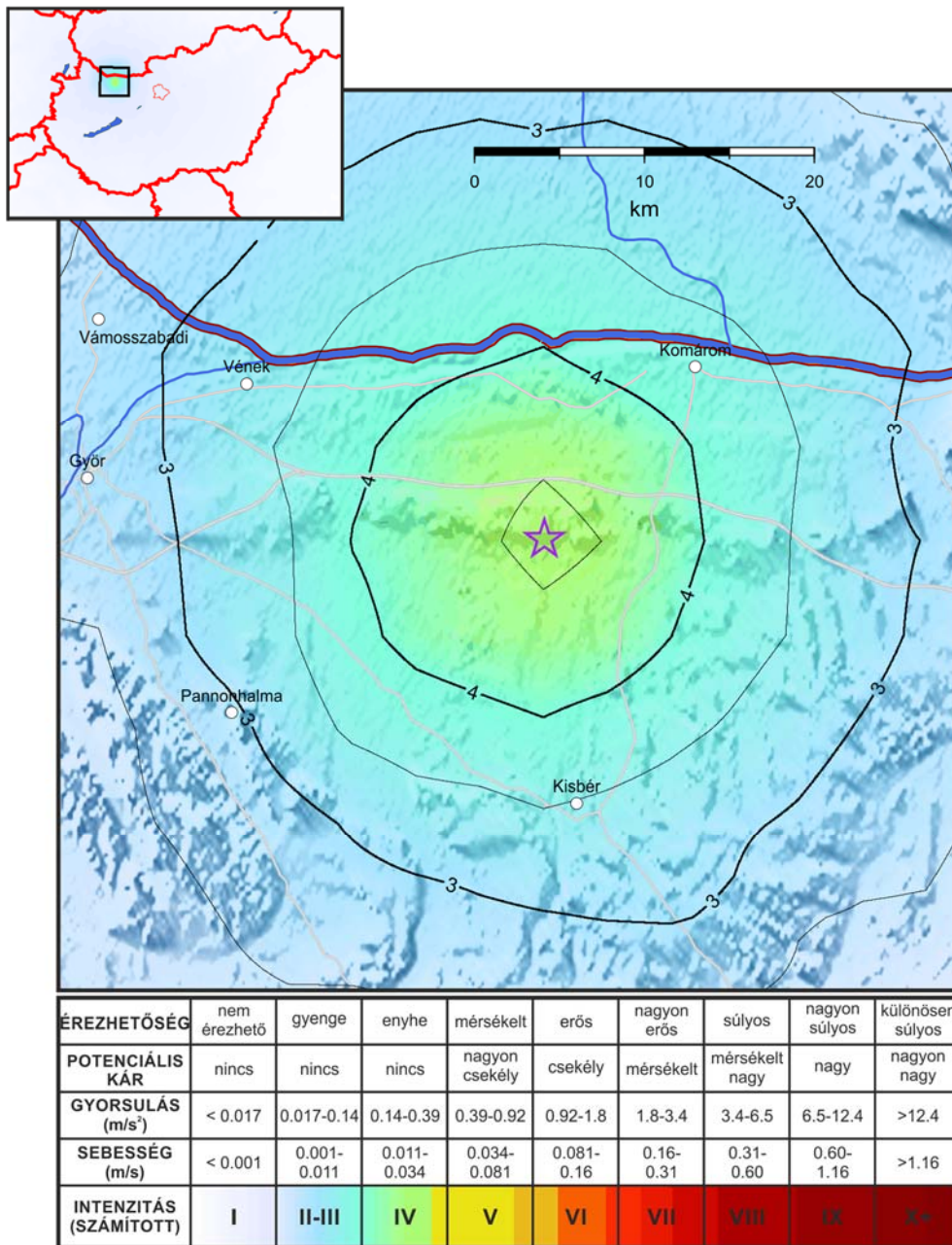
**DISCUSSION**

During the last days of the year, in 15<sup>th</sup> and 23<sup>rd</sup> of December two moderate size (2.0 M<sub>L</sub> and 2.9 M<sub>L</sub>) earthquakes were felt and reported from Bábolna area. The epicentral intensity of the events were estimated 4 EMS and 5 EMS.

Calculated intensity distribution of the event is shown in Figure 4.6.

Estimated area of  $I \geq 3$  (perceived shaking: weak) is about 1637 km<sup>2</sup>

Estimated area of  $I \geq 4$  (perceived shaking: light) is about 333 km<sup>2</sup>



4.6. ábra A 2015. december 15-i, bábolnai földrengés (17:55 UTC) számított intenzitás eloszlása

Figure 4.6. Instrumental intensity distribution of the Bábolna earthquake 15<sup>th</sup> December 2015 (17:55 UTC)

**2015. december 23. - Bábolna / 23 December 2015 - Bábolna****FÉSZKEPARAMÉTEREK / HYPOCENTER PARAMETERS**

Dátum / Date:	2015/12/23
Kipattanási idő / Origin Time:	21:22:37.27 UTC
Szélesség és hosszúság / Latitude and Longitude:	47.643 N 17.981 E (S.D. 0.9 km)
Mélység / Depth:	3.6 km (S.D. 1.0 km)
Magnitúdó / Magnitude:	2.9 ML
Maximális intenzitás / Maximum Intensity:	5 EMS

**LEÍRÁS**

Az év utolsó napjaiban, december 15-én és 23-án Bábolna környékén két rengés (2.0  $M_L$  és 2.9  $M_L$ ) volt érezhető 4 EMS és 5 EMS epicentrális intenzitással.

A rengés számított intenzitás eloszlását a 4.7. ábra mutatja.

$I \geq 3$  (gyenge érzhetőség) becsült területe 4780 km<sup>2</sup>

$I \geq 4$  (enyhe érzhetőség) becsült területe 1288 km<sup>2</sup>

$I \geq 5$  (mérsékelt érzhetőség) becsült területe 213 km<sup>2</sup>

**DISCUSSION**

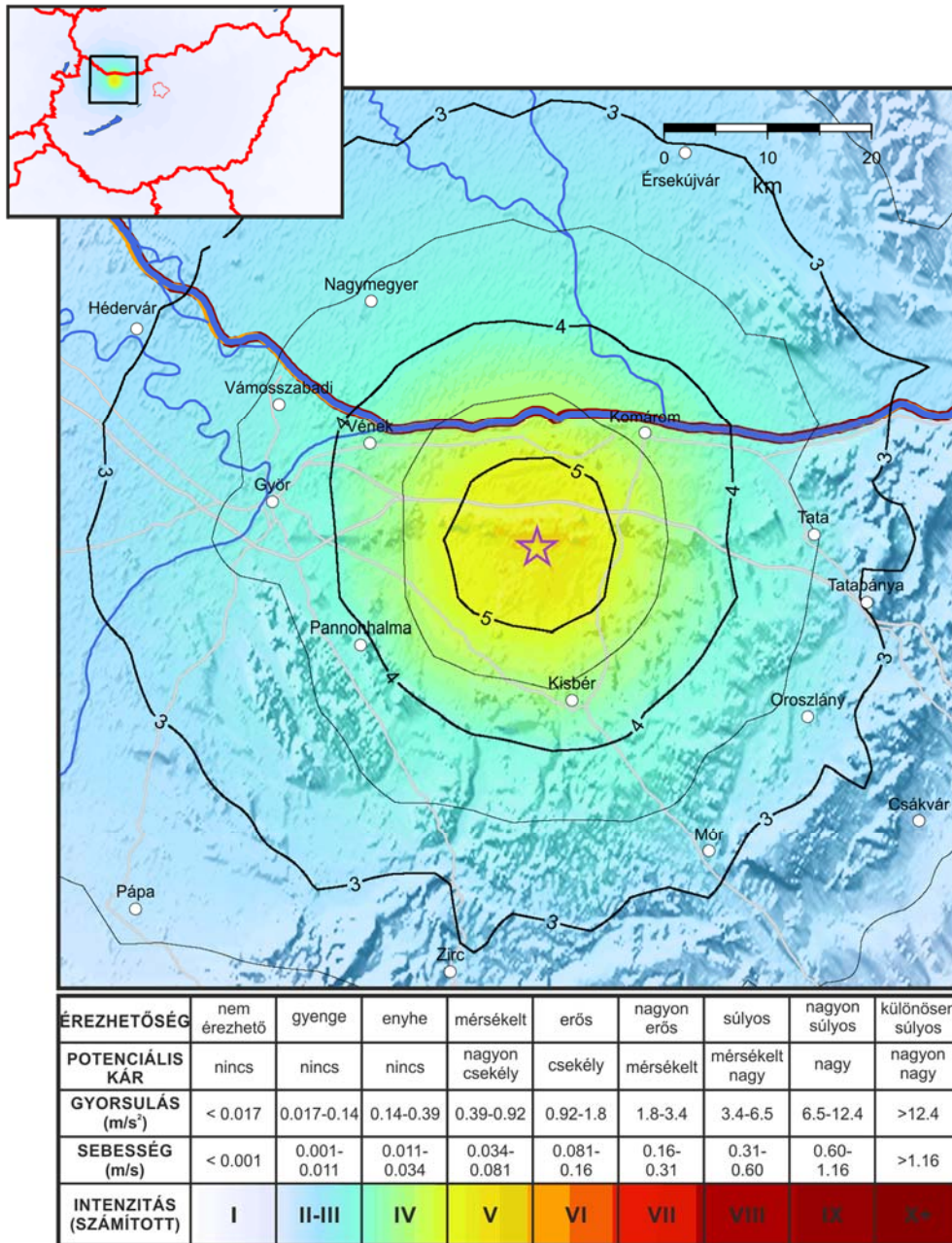
During the last days of the year, in 15<sup>th</sup> and 23<sup>rd</sup> of December two moderate size (2.0  $M_L$  and 2.9  $M_L$ ) earthquakes were felt and reported from Bábolna area. The epicentral intensity of the events were estimated 4 EMS and 5 EMS.

Calculated intensity distribution of the event is shown in Figure 4.7.

Estimated area of  $I \geq 3$  (perceived shaking: weak) is about 4780 km<sup>2</sup>

Estimated area of  $I \geq 4$  (perceived shaking: light) is about 1288 km<sup>2</sup>

Estimated area of  $I \geq 5$  (perceived shaking: moderate) is about 213 km<sup>2</sup>



4.7. ábra A 2015. december 23-i, bábolnai földrengés (21:22 UTC) számított intenzitás eloszlása

Figure 4.7. Instrumental intensity distribution of the Bábolna earthquake 23<sup>rd</sup> December 2015 (21:22 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 rezgést 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 rezgést 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 összekocognak. A rezgés erős, nehéz tárgyak felborulnak. Ajtók, ablakok kinyílnak vagy bezáródnak. Néhány esetben az ablaküvegek betörhetnek. Néhány vályog- és téglapépület falában hajszálrepedések keletkezhetnek, kisebb vakolatdarabok lehullhatnak.

### 6 ☞ **Kiseb károk okozó**

Épületen belül szinte mindenki, szabadban sokan érzik. Épületben tartózkodók közül sokan megijednek, és a szabadba menekülnek. Kiseb tárgyak leesnek. Hagyományos épületek közül sokban keletkezik kisebb kár, hajszálrepedés a vakolatban, kisebb vakolatdarabok lehullanak.

### 7 ☞ **Károk 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 károk 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 rombadól.

### 10 ☞ **Nagyon pusztító**

Sok hagyományos épület összedől.

### 11 ☞ **Elsőprő**

A legtöbb épület összedől.

### 12 ☞ **Teljesen elsőprő**

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)

## JEGYZETEK / NOTES

## JEGYZETEK / NOTES

