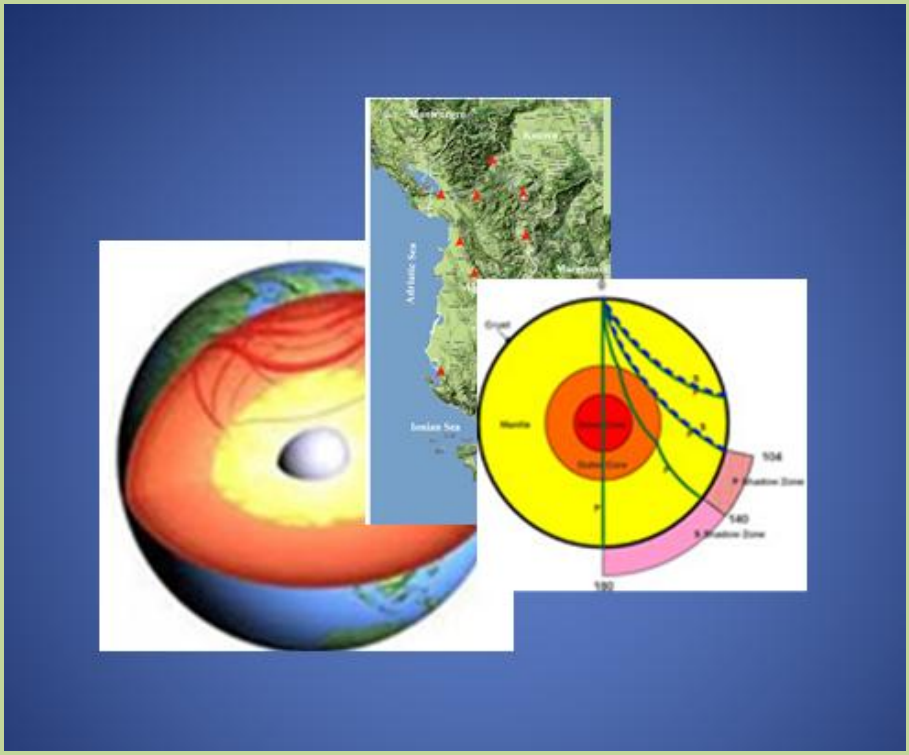

BULETINI I TËRMETEVE TË RRJETIT SIZMOLOGJIK SHQIPTAR

Korrik 2013

PARAMETRIC DATA
AND ALBANIAN'S EARTHQUAKE ANALYSIS
July 2013

UNIVERSITETI POLITEKNIK I TIRANËS
INSTITUTI I GJEOSHKENCAVE, ENERGJISË, UJIT DHE MJEDISIT
Departamenti i Sizmologjisë

BULETINI MUJOR I RRJETIT SIZMOLOGJIK

TË SHQIPERISË

Korrik 2013

MONTHLY BULLETIN OF THE ALBANIAN

SEISMOLOGICAL NETWORK

July 2013

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Tiranë, 2013

INFORMACION I PERGJITSHEM

Prezantim

Buletini i Rrjetit Sizmologjik Shqiptar është një publikim periodik i parametrave valore, parametrave vatrore dhe madhësisë së tërmeteve brenda territorit të Shqiperisë dhe rrotull saj, përpiluar nga Departamenti i Sizmologjisë i Institutit te Gjeoshkencave, Energjisë, Ujit dhe Mjedisit pranë Universitetit Politeknik të Tiranës.

Parametrat e vlerësuar i referohen kuadrantit gjeografik të kufizuar nga koordinatat: 39.0^0-43.0^0 V dhe 18.5^0-21.5^0 L.

Buletini përmban pjesën spjeguese të përbërë nga informacioni i përgjithshëm, simbolet e përdorura për parametrat e vlerësuar, të dhënat fazore valore për seicilin nga tërmetet e regjistruar dhe përpunuar, katalogu mujor i termeteve, informacionin makrosimik, statistikor, mekanizmin vatror dhe hartën e shpërndarjes së epiqendrave. Në të përfshihen disa kategori tërmetesh, bazuar në informacionin e regjistruar dhe përpunuar për secilen prej tyre. Ato jane: **1-** tërmetet e lokalizuar; **2-** tërmetet e regjistruar nga më shumë se një stacion lokal, por jo të lokalizuar dhe **3-** termete te regjistruar të paktën nga një stacion lokal, por me më shumë se një fazë valore.

Të dhënat parametrike, si më siper, vlerësohen në mënyrë të pandërprerë nëpërmjet monitorimit sizmologjik dhe bazohen në analizën sasiore të regjistrimit instrumental valor. Llogaritja e vlerave të tyre është produkt i aplikimit të metodave analitike të njohura, në menyrë

GENERAL INFORMATION

Introduction

The Albanian Seismologic Network's bulletin is a periodic publication of earthquake wave data, source parameters and their magnitudes, for every seismic event occurring inside the Albanian territory and its surroundings. This publication is compiled in the Department of Seismology of the Institute of Geosciences, Energy, Water and Environment under the Polytechnic University of Tirana. All the estimated values, of the parameters, refer to the geographic quadrant confined by the coordinates: 39^0- 43^0N and 18.5^0-21.5^0 E.

Bulletin comprises a description section, containing the most general information, the section of the used symbols corresponding to all the evaluated parameters, phases data for each of the recorded and located earthquakes. It contains also the event catalogue, the macro-seismic information, the statistical information, the focal mechanism solutions and an aerial epicenter distribution map.

Different earthquake information categories are included, depending on their recorded and elaborated information, for each of them. They are: **1-** 1ocalized earthquakes; **2-** earthquakes recorded from more than one local station, but not located and **3-** earthquakes recorded at least by one station, but having more than one seismic phase.

The parametric data, as above, are permanently evaluated throughout the seismological monitoring routine, based upon quantitative analyze of instrumental waveform recordings. Their computed values are the direct application

iterative dhe interaktive, të aplikuara në programe llogarites të çertifikuar dhe të njohur globalisht. Kështu, për përcaktimin e të dhënave kohore valore hyrëse përdoret programi Atlas, ndërsa lokalizimi i tërmeteve kryhet nëpërmjet programit Hypoinverse.

Në këtë analizë merret në konsideratë modeli lokal për strukturën e shpejtësisë së përhapjes së valëve sizmike (Ormëni 2007) (kryesisht atyre volumore, primare dhe sekondare, P dhe S). Vlerësimi i magnitudës realizohet duke aplikuar modele të njohur parametrik si ai Richter & Gutenberg (1956) dhe Eaton (1992).

Analiza e të dhënave të publikuara realizohet nga grupi i punes i përbere nga punonjësit kërkues shkencor Rrapo Ormeni dhe Edmond Dushi si edhe ata ndihmës shkencor Ardian Minarolli dhe Ervin Kasa.

Informacioni instrumental valor përftohet nëpërmjet një rrjeti stacionesh lokal, ku përfshihen: stacioni sizmologjik qëndror i Tiranës (TIR), B. Currit (BCI), Pukës (PUK), Peshkopisë (PHP), Vlorës (VLO), Tepelenës (TPE), Sarandës (SRN) dhe Korçës (KBN), te cilët janë të paisur me sensor me bandë të gjerë regjistrimi. Gjithashtu, rrjeti lokal përmban edhe një numër stacionesh me regjistrim me period të shkurtër, ku përfshihen: Shkodra (SDA), Laçi (LACI) dhe Leskoviku (LSK).

Në analizë perfshihen edhe të dhënat valore të regjistruara e përcaktuara nga një numër stacionesh sizmologjik të rajonit dhe Mesdheut, të cilët i përkasin rrjetit sizmologjik të Universitetit “Aristotel” të Selanikut (AUTH), rrjetit sizmologjik Italian të menaxhuar nga Instituti Kombetar i Gjeofizikës dhe Vullkanologjisë (INGV), si edhe stacione të rrjetit sizmologjik të Observatorit Sizmologjik të Malit të Zi (MSO).

result of known analytical methods, iteratively and interactively, within certified and globally known computational programs.

Hence, for the onset time data determination, the Atlas program is used, whereas the earthquake location is done by mean of Hypoinverse program. For this analyze, a local velocity model accounting for the local and accurate seismic wave paths, is used (Ormeni, 2007). Mainly body seismic waves are concerned, primary P-phases and secondary S-phases, within computation and location process. Magnitude determination is achieved through known parametric models as the one of Richter (1956) and Eaton (1992).

Analyzes of the published data is undertaken from a dedicated working group, comprising by scientific staff Rrapo Ormeni & Edmond Dushi and technical staff Ardian Minarolli & Ervin Kasa.

Instrumental information is achieved through a network of local seismological stations, as listed: Tirana central station (TIR), B. Curri (BCI), Puka (PUK), Peshkopia (PHP), Vlora (VLO), Tepelena (TPE), Saranda (SRN) and Korça (KBN), which are equipped with broad band seismic sensors.

Also, the local network enumerates some short period recording stations, situated at Shkodra (SDA), Laçi (LACI) and Leskoviku (LSK).

In this analyze, data from a number of regional stations, are included as well. They are distributed along the Mediterranean coast and belong to the AUTH network of the “Aristotle” university of Thessaloniki, Italian National Seismological Network managed from National Institute of Geophysics and Volcanoes (INGV) as well as seismological stations of the Seismological Observatory of Montenegro (MSO).

STACIONET E RRJETIT SIZMOLOGJIK (SEISMOLOGICAL NETWORK STATION)

Kodi Stacionit (Stn. Code)	Regjistrimi (po/jo) (Registered)	Koordinatat (Coordinates)		Lartesia (Elevation)	Tipi Stacionit (Stn. Type)	Sizmometri (Sensor Type	Sistemi regjistrimit Recording system	Sistemi i komunikimit Comunication system	Perioda natyrore e sensorit (Natural Sensor period
		V-J (*N-S*)	*L-P* (*E-W*)						
TIR	Po (y)	41.3477	19.8650	198	3C-VBB	STS-2	Quantera	VSAT	120 s
BCI	Po	42.3666	20.0675	500	3C-BB	CMG-40T	Trident	VSAT	40 s
KKS	Po	42.0756	20.4113	300	3C-BB	SM-4 (B)	GBD-x16	Dial Up	0.2 s
PHP	Po	41.6847	20.4408	670	3C-BB	Trillium-40	Trident	VSAT	40 s
PUK	Po	42.0426	19.8926	900	3C-BB	Trillium-40	Trident	VSAT	40 s
SDA	Po	42.0519	19.4986	80	3C-SP	SM-4 (B)	GBD-x16	Dial Up	0.2 s
LACI	Po	41.6363	19.7094	40	3C-SP	SM-4 (B)	GBD-x16	Dial Up	0.2 s
KBN	Po	40.6236	20.7874	800	3C-BB	Trillium-40	Trident	VSAT	40 s
LSK	Po	40.1500	20.6000	920	3C-SP	SM-4 (B)	GBD-x16	Dial Up	0.2 s
TPE	Po	40.2952	20.0109	240	3C-BB	CMG-40T	Trident	VSAT	40 s
VLO	Po	40.4686	19.4955	80	3C-BB	Trillium-40	Trident	VSAT	40 s
SRN	Po	39.8800	20.0005	20	3C-BB	Trillium-40	Trident	VSAT	40 s

SIMBOLIKA E PERDORUR NE PERMBAJTJEN E BULETINIT SIZMOLOGJIK
SYMBOLIC USED IN SEISMOLOGICAL BULLETIN CONTAIN

Simboli (Symbol)	Parametri korrespondues (Corresponding parameter)	Pershkrimi (Description)
Y	Viti (year)	Viti ndodhjes se ngjarjes (year of occurence)
M	Muaji (month)	Muaji i ndodhjes së ngjarjes (month of occurence
D	Dita (day)	Data e ndodhjes së ngjarjes (date of occurence)
H	Ora (hour)	Ora ne origjine (UTC) (origine time universal)
M	Minuta (minute)	Minuta (origine time minute)
Sec	Sekonda (second)	Sekonda (origine time second)
Lat	Gjerësia gjeografike (latitude)	Gjeresia gjeografike e epiqendrës Veri-Jug(^{0}) Geographical latitude N-S direction
Lon	Gjatësia gjeografike (longitude)	Gjatesia gjeografike e epiqendrës Lindje-Perendim(^{0}) Geographical longitude E-W direction
Dep	Thellësia (depth)	Thellësia vatrore (focal depth)-km
Hor. err	Gabimi horizontal (horizontal error)	Gabimi i bërë në vlerësimin e epiqendres (km) Estimation error of epicentre
Ver. err	Gabimi vertikal (vertical error)	Gabimi i bërë në vlerësimin e thellësisë (km) Depth estimation error
Gap	Mosmbulimi me stacione minitorimi (azimutal gap)	Zona e sferës fokale (imagjinare),e pa mbuluar me stacione regjistrues Azimutal station gap
Rms	Gabimi mesatar kuadratik (Root mean squarre)	Gabimi i pergjitshem (Total estimation error-sec)
Mag	Magnituda (magnitude)	Madhesia e termetit sipas shkalles lokale te kalibruar (local calibrated measure of the earthquake size)
Net	Emërtimi i rrjetit sizmologjik (network code)	Kodi nderkombetar i identifikimit te rrjetit ne FDSN (Federation of Digital seismologies network) eshte AC

		(International code of Network identification on FDSN is AC)
Nr	Numuri i stacioneve (station's number)	Nr. Stacioneve te perdorur ne lokalizim (No. Of used stations)
STAT	Kodi i stacionit (station code)	Kodi nderkombetar që përdoret për të identifikuar stacionin përkatës sizmologjik (tre karaktere) (international stn code)
SP	Komponentja e regjistrimit (recording component)	Kodimi i komponenteve te regjistrimit ne perputhje e orientimin gjeografik 3D (Z, N ose E) Component code acording to recording direction
IPHASW	Faza valore sizmike (seismic wave phase)	tipi i valës P (P_g / P_n) ose S (S_g / S_n) (wave phase type)
D	Polariteti i hyrjes së parë në komponenten vertikale (first vertical honsent polarity)	Polariteti i vales renese ne statcion, ne komponenten Z (first onset polarity on Z)
HRMM SECON	Ora, minuta dhe sekonda (time onsets for each phase)	Te dhenat kohore per mbrritjen e seciles faze ne regjistrim Time data for each phases on recording
AZIMU	Kendi azimutal (station-source azimuth angle)	Azimuti stacion- vater termeti Station-focus azimuthal angle
RES	Diferenca kohore (time residual)	Ndryshimi ndërmjet kohës teorike të llogaritur nga modeli dhe kohës faktike, nga regjistrimi Time residuals between calculated and observed times
DIS	Largesia epiqendrore (epicentral distance)	Largesia hoeizontale epiqender-stacion Distance from epicenter to the station
DUR	Zgjatshmeria e sinjalit sizmik (signal time duration)	Shpreh zgjatshmerinë e plotë të sinjalit sizmik ne sizmogram Total Signal Duration

INFORMACIONI PARAMETRIK FAZOR DHE LOKALIZIMI (PARAMETRIC PHASES INFORMATION AND LOCATION)

TËRMETE TË AFËRTA (NEAR EARTHQUAKE)

```
Y    M    D    HM    Sec      Lat      Long    Dep  Net Nr Rms Mag    Epicenter

2013 7   1   1528   37.09   41.86     20.50   11   ASN 3   0.2 2.8  RADOMIR-DIBER
GAP=170                  hor.err=1km          ver.err=1KM          -ALBANIA

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR     Md
PHP  SZ IPG      1528 41.62     196         0.0     20      28      2.6
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PHP  SE ISG      1528 44.36     196       -0.1     20
BCI  SZ IPG      1528 48.38     328        0.1     66      29     2.8
BCI  SE ISG      1528 58.26     326        0.0     66
TIR  SZ IPG      1528 50.72     224       -0.1     78      40     3.0
TIR  SE ISG      1529 01.97     224        0.1     78


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  2  0705  17.51
GAP=170                 hor.err=         ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PHP  SZ IPG      0705 05.14
PHP  SE ISG      0705 10.66


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  2  0705  17.51
GAP=                    hor.err=         ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PHP  SZ IPG      0705 51.18
PHP  SE ISG      0705 55.88


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  2  0815  21.83  39.22    18.85  10   ASN 7  0.1 3.7  SOUTHERN ITALY
GAP=246                 hor.err=1km         ver.err=1KM

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
SCTE SZ IPG      0815 39.68     343        0.0     100
SCTE SE ISG      0815 53.01     343       -0.1     100
SRN  SZ IPG      0815 44.16     53         0.1     125     81     3.7
SRN  SE ISG      0816 00.90     53         0.2     125
IGT  SZ IPN      0815 46.01     74         0.2     135
IGT  SE ISN      0816 03.23     74        -0.1     135
VLO  SZ IPN      0815 48.09     22         0.1     150     80     3.7
VLO  SE ISN      0816 07.65     22         0.1     150
TPE  SZ IPN      0815 48.99     40        -0.2     157     82     3.7
TPE  SE ISN      0816 09.36     40        -0.1     157
NOCI SZ IPN      0816 00.14     320       -0.1     230
NOCI SE ISN      0816 28.89     320        0.1     230
PHP  SZ IPN      0815 48.09     26         0.2     306
PHP  SE ISN      0816 07.65     26        -0.1     306


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  2  1045  23.64  40.22    21.86  20   ASN 9  0.2 4.7    GREECE
```

GAP=246 hor.err=2km ver.err=1KM

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
THE	SZ	IPG		1045	41.78	63	0.1	104		
THE	SE	ISG		1045	55.25	63	-0.1	104		
IGT	SZ	IPN		1045	49.48	240	-0.1	152		
IGT	SE	ISN		1046	08.72	240	0.1	152		
TPE	SZ	IPN		1045	50.51	274	0.1	158	225	4.7
TPE	SE	ISN		1046	11.52	274	-0.1	158		
SRN	SZ	IPN		1045	50.86	257	0.1	163	210	4.7
SRN	SE	ISN		1046	11.52	257	0.2	163		
LKD2	SZ	IPN		1045	54.16	214	-0.3	190		
LKD2	SE	ISN		1046	19.53	214	0.2	190		
PHP	SZ	IPN		1045	57.01	324	0.1	201	190	4.6
PHP	SE	ISN		1046	21.95	324	-0.1	201		
VLO	SZ	IPN		1045	57.16	279	0.2	203	212	4.7
VLO	SE	ISN		1046	22.48	279	-0.1	203		
TIR	SZ	IPN		1045	22.48	308	-0.2	210	215	4.7
TIR	SE	ISN		1046	24.09	308	0.2	210		
BCI	SZ	IPN		1046	07.62	329	-0.3	329	177	4.6

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	3	0101	57.57	40.21	21.84	5	ASN	5	0.2	3.3	GREECE

GAP=174 hor.err=1km ver.err=1KM

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
IGT	SZ	IPN		0102	23.61	241	0.1	149		
IGT	SE	ISN		0102	43.84	241	-0.1	149		
TPE	SZ	IPN		0102	28.24	275	0.1	156	53	3.3
TPE	SE	ISN		0102	45.96	275	0.1	156		
SRN	SZ	IPN		0102	25.78	256	-0.1	161	52	3.3
SRN	SE	ISN		0102	48.02	256	0.1	161		
PHP	SZ	IPN		0102	31.56	325	0.1	202	53	3.3
PHP	SE	ISN		0102	55.31	325	-0.1	202		
TIR	SZ	IPN		0102	34.06	209	-0.1	209	55	3.3
TIR	SE	ISN		0103	00.66	209	-0.2	209		

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Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	3	0107	31.73	40.95	20.07	1	ASN	6	0.1	3.2	GRAMSH-ALBANIA

GAP=163 hor.err=1km ver.err=1KM

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
TIR	SZ	IPG		0107	42.58	339	-0.1	46	39	3
TIR	SE	ISG		0107	50.01	339	-0.1	46		
TPE	SZ	IPG		0107	48.58	185	0.0	73	44	3.1
TPE	SE	ISG		0107	58.37	185	0.1	73		

PHP	SZ	IPG	0107 50.61	20	0.0	86	50	3.3
PHP	SE	ISG	0108 02.11	20	-0.1	86		
SRN	SZ	IPG	0107 56.07	183	0.0	119	51	3.3
SRN	SE	ISG	0108 13.84	183	0.1	119		
PUK	SZ	IPG	0107 56.56	185	0.1	121	52	3.3
PUK	SE	ISG	0108 14.18	185	0.0	121		
BCI	SZ	IPN	0108 02.37	0	0.1	156	52	3.3
BCI	SE	ISN	0108 23.19	0	0.1	156		

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	3	1309	11.19	40.12	21.84	9	ASN	8	0.2	4.2	GREECE

GAP=110 hor.err=2km ver.err=1KM

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
THE	SZ	IPG		1309	30.87	59	0.2	104		
THE	SE	ISG		1309	45.07	59	0.1	104		
IGT	SZ	IPN		1309	36.50	244	0.1	152		
IGT	SE	ISN		1309	55.58	244	-0.1	152		
TPE	SZ	IPN		1309	38.49	278	-0.1	158	124	4.1
TPE	SE	ISN		1309	58.71	278	-0.1	158		
SRN	SZ	IPN		1309	38.66	261	0.3	163	120	4.1
SRN	SE	ISN		1309	59.36	261	0.1	163		
VOL	SZ	IPN		1309	46.93	282	-0.2	190	120	4.2
VLO	SE	ISN		1310	11.68	282	0.1	190		
PHP	SZ	IPN		1309	46.19	326	0.1	201	115	4.1
PHP	SE	ISN		1310	13.06	326	-0.1	201		
TIR	SZ	IPN		1309	47.37	310	-0.2	210	125	4.2
TIR	SE	ISN		1310	14.54	310	0.1	210		
BCI	SZ	IPN		1309	55.38	330	-0.3	329	118	4.2

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	3	1328	23.91	40.12	21.85	10	ASN	9	0.3	4.2	GREECE

GAP=158 hor.err=2km ver.err=1KM

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
THE	SZ	IPG		1328	42.88	59	-0.1	107		
THE	SE	ISG		1328	57.42	59	0.1	107		
IGT	SZ	IPN		1328	50.08	244	0.1	148		
IGT	SE	ISN		1329	09.01	244	-0.1	148		
TPE	SZ	IPN		1328	51.43	278	-0.2	160	311	4.9
TPE	SE	ISN		1329	12.19	278	0.3	160		
SRN	SZ	IPN		1328	52.05	261	-0.1	163	292	4.8
SRN	SE	ISN		1329	13.97	261	0.2	163		
LKD2	SZ	IPN		1328	55.06	214	-0.3	182		
LKD2	SE	ISN		1329	18.35	214	0.1	182		
VOL	SZ	IPN		1328	59.19	282	-0.2	207	301	4.7
VLO	SE	ISN		1329	26.47	282	0.1	207		
PHP	SZ	IPN		1328	58.29	326	-0.1	212	240	4.7

PHP	SE	ISN	1329	26.49	326	0.1	212		
TIR	SZ	IPN	1329	00.91	310	-0.2	218	287	4.9
TIR	SE	ISN	1329	27.79	310	-0.1	218		
BCI	SZ	IPN	1329	09.25	330	-0.2	291	240	4.8

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	3	1454	14.17	40.15	21.85	1	ASN	9	0.4	3.6	GREECE
GAP=155					hor.err=2km			ver.err=1KM				

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
THE	SZ	IPG		1454	33.86	59	-0.1	107		
THE	SE	ISG		1454	48.82	59	0.1	107		
IGT	SZ	IPN		1454	40.95	243	0.1	148		
IGT	SE	ISN		1455	00.85	243	0.1	148		
TPE	SZ	IPN		1454	42.18	277	0.1	158	55	3.4
TPE	SE	ISN		1455	03.52	277	-0.2	158		
SRN	SZ	IPN		1454	43.15	260	-0.1	161	72	3.6
SRN	SE	ISN		1455	04.28	260	0.2	161		
LKD2	SZ	IPN		1454	46.28	215	-0.1	183		
LKD2	SE	ISN		1455	10.67	215	0.1	183		
VOL	SZ	IPN		1454	49.45	281	-0.2	207	67	3.6
VLO	SE	ISN		1455	15.01	281	-0.1	204		
PHP	SZ	IPN		1454	48.92	326	-0.3	208	67	3.6
PHP	SE	ISN		1455	17.24	326	0.2	208		
TIR	SZ	IPN		1454	51.78	309	0.1	214	77	3.7
TIR	SE	ISN		1455	20.79	309	0.3	214		

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	3	1933	24.26	40.18	21.90	14	ASN	9	0.2	3.4	GREECE
GAP=156					hor.err=3km			ver.err=1KM				

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
THE	SZ	IPG		1933	42.59	60	0.1	102		
THE	SE	ISG		1933	55.98	60	-0.1	102		
IGT	SZ	IPN		1933	50.80	243	0.2	153		
IGT	SE	ISN		1934	11.74	243	0.2	153		
TPE	SZ	IPN		1933	51.55	276	-0.1	162	48	3.4
TPE	SE	ISN		1934	12.57	276	-0.2	162		
SRN	SZ	IPN		1933	52.71	259	-0.1	166	46	3.3
SRN	SE	ISN		1934	14.23	259	0.2	166		
LKD2	SZ	IPN		1933	55.56	216	-0.3	188		
LKD2	SE	ISN		1934	20.04	216	0.1	188		
VOL	SZ	IPN		1933	59.92	280	0.2	207	46	3.4
PHP	SZ	IPN		1933	57.14	324	-0.3	208		
PHP	SE	ISN		1934	24.83	324	0.2	208		
TIR	SZ	IPN		1934	00.05	308	0.1	215	49	3.4
TIR	SE	ISN		1934	27.12	308	0.2	215		
BCI	SZ	IPN		1934	10.00	329	-0.3	287	68	3.7

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Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  5  1048  21.389  42.43   19.30  7    ASN 3  0.2 3.2   MONTENEGRO
GAP=170                hor.err=17km         ver.err=2KM

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PUK  SZ IPG      1048 31.32     96         0.1     63      30     2.8
PUK  SE ISG      1048 41.99     96        -0.2     63
BCI  SZ IPG      1048 32.52     132        0.1     65      30     2.8
BCI  SE ISG      1048 42.57     132       -0.3     65
PHP  SZ IPG      1048 43.82     131        0.1     125     45     3.2
PHP  SE ISG      1049 00.21     131        0.1     125


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  5  1838  57.30
GAP=                   hor.err=           ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PHP  SZ IPG      1838 57.30
PHP  SE ISG      1839 04.25


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  5  2151  25.75  40.27    20.66  12   ASN 3  0.4 2.5   SOUTH ERSEKA
GAP=240                hor.err=1km          ver.err=3KM       -ALBANIA

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
TPE  SZ IPG      2151 36.17     273        0.0     55      19     2.4
TPE  SE ISG      2151 43.56     273       -0.1     55
SRN  SZ IPG      2151 38.46     233        0.1     71      21     2.5
SRN  SE ISG      2151 48.48     233        0.0     71
IGT  SZ IPG      2151 41.36     200        0.1     87
IGT  SE ISG      2151 53.09     200       -0.1     87


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  6  1313  05.33
GAP=                   hor.err=           ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PHP  SZ IPG      1313 05.33
PHP  SE ISG      1313 08.30


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter
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```
2013 7  8  0920  05.59  41.18    20.15  3    ASN 5  0.1 2.9  N-E ELBASAN
GAP=163                 hor.err=2km         ver.err=1KM      -ALBANIA

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
TIR  SZ IPG      0920 11.73     306        0.1     30      26     2.6
TIR  SE ISG      0920 16.34     306        0.1     30
PHP  SZ IPG      0920 16.87     303        0.0     60      31     2.9
PHP  SE ISG      0920 25.31     303        0.1     60
BCI  SZ IPG      0920 29.01     352        0.1     131     34     2.9
BCI  SE ISG      0920 46.71     352        0.1     131
SRN  SZ IPN      0920 32.13     186       -0.1     145     36     3
SRN  SE ISN      0920 50.11     186        0.1     145
IGT  SZ IPN      0920 37.01     175        0.2     183
IGT  SE ISN      0921 00.61     175       -0.1     183


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  8 2030  32.50   41.50    20.43  2    ASN 3  0.1 2.3  GJORICE,DIBER
GAP=248                 hor.err=1km         ver.err=2KM      -ALBANIA

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PHP  SZ IPG      2030 31.83     2          0.0     20      18     2.3
PHP  SE ISG      2030 36.59     2          0.1     20
TIR  SZ IPG      2030 35.56     250        0.2     50      16     2.3
TIR  SE ISG      2030 47.18     250        0.1     50
BCI  SZ IPG      2030 52.01     343        0.0     100     19     2.3
BCI  SE ISG      2031 02.58     343        0.1     100


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  8   0226 21.12
GAP=                    hor.err=            ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PHP  SZ IPG      0226 21.12
PHP  SE ISG      0226 24.53


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  9 0818   13.77  42.57    19.76  7    ASN 3  0.1 2.7  EAST VERMOSH
GAP=323                 hor.err=1km         ver.err=2KM      -ALBANIA

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
BCI  SZ IPG      0818 20.25     133        0.0     33      28     2.7
BCI  SE ISG      0818 24.93     133        0.1     33
PUK  SZ IPG      0818 24.68     170        0.1     60      29     2.7
PUK  SE ISG      0818 32.92     170        0.1     60
PHP  SZ IPG      0818 33.96     150        0.0     113     29     2.7
PHP  SE ISG      0818 46.78     150        0.1     113
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Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  11  0029 09.47
GAP=                    hor.err=           ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
TIR  SZ IPG      0029 09.47
TIR  SE ISG      0029 14.60


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  11 0049  13.96  41.48    19.76  16   ASN 3  0.1 2.4 FUSHE-KRUJE
GAP=218                 hor.err=2km        ver.err=1KM       -ALBANIA

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
TIR  SZ IPG      0049 16.43     151        0.2     18      17     2.3
TIR  SE ISG      0049 21.58     151        0.1     18
PHP  SZ IPG      0049 25.13     68         0.0     60
PHP  SE ISG      0049 33.48     68         0.1     60
PUK  SZ IPG      0049 25.44     9          0.0     62      17     2.4
PUK  SE ISG      0049 33.07     9          0.0     62


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  11                                    PHP
GAP=                    hor.err=           ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PHP  SZ IPG      0353 04.38
PHP  SE ISG      0353 08.22


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  11 0650  27.20  40.29    19.69  26   ASN 4  0.1 2.5  26KM S-E VLORE
GAP=218                 hor.err=2km        ver.err=1KM       -ALBANIA

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
VLO  SZ IPG      0650 33.60     319        0.0     26      17     2.5
VLO  SE ISG      0650 38.44     319        0.0     26
TPE  SZ IPG      0650 33.61     90        -0.1     26      17     2.5
TPE  SE ISG      0650 38.62     90        -0.1     26
SRN  SZ IPG      0650 37.49     150        0.1     53      20     2.6
SRN  SE ISG      0650 45.02     150        0.1     53
PUK  SZ IPN      0650 59.98     4          0.1     194


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter
```

2013 7 11 2316 45.10 41.09 20.18 9 ASN 4 0.1 2.7 SHUSHIC-ELBASAN
GAP=299 hor.err=1km ver.err=1KM -ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
TIR	SZ	IPG		2316	52.04	318	0.1	38	22	2.5
TIR	SE	ISG		2316	58.71	318	0.1	38		
PHP	SZ	IPG		2316	57.88	17	0.0	69	32	2.9
PHP	SE	ISG		2317	06.11	17	-0.1	69		
PUK	SZ	IPG		2317	04.05	348	0.0	108	31	2.9
PUK	SE	ISG		2317	09.18	348	0.1	108		
BCI	SZ	IPN		2317	10.33	352	0.0	141	32	2.9
BCI	SE	ISN		2317	28.31	352	0.1	141		

Y M D HM Sec Lat Long Dep Net Nr Rms Mag Epicenter

2013 7 11 2336 53.73 41.09 20.21 7 ASN 4 0.1 2.8 SHUSHIC-ELBASAN
GAP=300 hor.err=1km ver.err=1KM -ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
TIR	SZ	IPG		2337	01.12	316	0.0	40	28	2.8
TIR	SE	ISG		2337	07.41	316	0.0	40		
PHP	SZ	IPG		2337	06.11	16	0.1	68	28	2.8
PHP	SE	ISG		2337	15.71	16	-0.1	68		
PUK	SZ	IPG		2337	09.37	347	0.0	109	31	2.9
PUK	SE	ISG		2337	27.48	347	-0.1	109		
BCI	SZ	IPN		2337	19.49	356	-0.1	142	34	3
BCI	SE	ISN		2337	37.41	356	0.0	142		

Y M D HM Sec Lat Long Dep Net Nr Rms Mag Epicenter

2013 7 12 0228 44.25 41.91 20.34 7 ASN 3 0.1 2.4 SKAVICE,KUKES
GAP=184 hor.err=1km ver.err=1KM -ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
PHP	SZ	IPG		0228	27.54	161	0.1	25	19	2.4
PHP	SE	ISG		0228	31.28	161	0.0	25		
PUK	SZ	IPG		0228	19.97	293	0.0	40	21	2.5
PUK	SE	ISG		0228	35.67	293	0.1	40		
BCI	SZ	IPG		0228	32.61	332	0.1	56	28	2.8
BCI	SE	ISG		0228	40.44	3332	0.0	56		

Y M D HM Sec Lat Long Dep Net Nr Rms Mag Epicenter

2013 7 12 0330 48.25 41.09 20.20 7 ASN 3 0.1 2.5 SHUSHIC-ELBASAN
GAP=300 hor.err=1km ver.err=1KM -ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
TIR	SZ	IPG		0330	55.65	316	0.0	40	21	2.5

```
TIR  SE ISG      0331 01.51     316        0.0     40
PHP  SZ IPG      0331 00.96     16        -0.1     69      22     2.5
PHP  SE ISG      0331 10.05     16         0.0     69
PUK  SZ IPG      0331 07.25     348        0.1     108     22     2.5
PUK  SE ISG      0331 22.55     348       -0.1     108


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  12 1254  43.86
GAP=                    hor.err=           ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PHP  SZ IPG      1254 43.86
PHP  SE ISG      1254 45.86


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  13 1028  52.70
GAP=                    hor.err=           ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PHP  SZ IPG      1028 52.70
PHP  SE ISG      1028 58.60


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  13 1254  51.08  41.04    20.23  8    ASN 3  0.2 2.6  S-E ELBASAN
GAP=305                 hor.err=0km        ver.err=1km       -ALBANIA

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
TIR  SZ IPG      1255 00.39     318        0.0     46      16     2.3
TIR  SE ISG      1255 06.84     318        0.0     46
PHP  SZ IPG      1255 05.06     13         0.1     73      25     2.6
PHP  SE ISG      1255 15.02     13         0.0     73
BCI  SZ IPN      1255 18.56     355       -0.1     148     28     2.8
BCI  SE ISN      1255 37.01     355        0.1     148

Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  13 1458  30.85
GAP=                    hor.err=           ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
TIR  SZ IPG      1458 30.85
TIR  SE ISG      1458 34.21


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter
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```
2013 7  14 2055  07.38
GAP=                    hor.err=            ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PHP  SZ IPG      2055 07.38
PHP  SE ISG      2055 12.73


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  15 0031  08.24  42.48    20.06  7    ASN 4  0.1 2.6  NORTH B.CURRI
GAP=302                 hor.err=0km         ver.err=1km      -ALBANIA

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
BCI  SZ IPG      0031 11.20     175        0.0     11      25     2.6
BCI  SE ISG      0031 13.81     175        0.1     11
PUK  SZ IPG      0031 17.48     196        0.0     50      24     2.6
PUK  SE ISG      0031 24.60     196        0.0     50
PHP  SZ IPG      0031 23.95     160        0.0     94      25     2.6
PHP  SE ISG      0031 37.66     160        0.1     94
TIR  SZ IPG      0031 34.15     188        0.0     126     25     2.6
TIR  SE ISG      0031 47.42     188       -0.1     126


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  16 2007  50.22   38.23   21.10  8    ASN 9  0.2 3.9    GREECE
GAP=297                 hor.err=3km         ver.err=4KM

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
LKD2 SZ IPN      2008 39.58     334       -0.2     163
LKD2 SE ISN      2008 19.13     334        0.2     163
IGT  SZ IPN      2008 31.50     337        0.1     250
IGT  SE ISN      2009 02.96     337       -0.1     250
SRN  SZ IPN      2008 37.44     335       -0.1     297     71     3.8
SRN  SE ISN      2009 13.38     335       -0.2     297
TPE  SZ IPN      2008 43.16     339       -0.1     338     80       3.9
TPE  SE ISN      2009 22.61     339        0.1     338
SCTE SZ IPN      2008 50.57     319        0.2     391
TIR  SZ IPN      2008 58.14     343        0.1     452     83       4
TIR  SE ISN      2009 49.45     343       -0.1     452
PHP  SZ IPN      2008 58.42     350        0.3     476
PHP  SE ISN      2009 51.15     350       -0.3     476
BCI  SZ IPN      2009 08.45     348       -0.2     556
SGRT SZ IPN      2009 28.24     316       -0.2     684


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  17 0124  01.58  41.26    20.32  12   ASN 3  0.3 2.1  N-E ELBASAN
GAP=274                 hor.err=1km         ver.err=2KM      -ALBANIA
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STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
TIR	SZ	IPG		0124	09.07	285	0.0	39	12	2.0
TIR	SE	ISG		0124	14.51	285	-0.1	39		
PHP	SZ	IPG		0124	10.50	11	0.0	48	13	2.1
PHP	SE	ISG		0124	17.20	11	0.0	48		
PUK	SZ	IPG		0124	18.15	328	0.1	93	14	2.2
PUK	SE	ISG		0124	30.93	328	-0.1	93		

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	18	1908	17.09	42.49	20.16	8	ASN	4	0.1	2.6	NORTH B.CURRI
GAP=302					hor.err=2km			ver.err=1km				-ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
BCI	SZ	IPG		1908	20.65	208	0.0	16	23	2.5
BCI	SE	ISG		1908	23.19	208	-0.1	16		
PUK	SZ	IPG		1908	27.12	204	-0.1	55	23	2.6
PUK	SE	ISG		1908	34.81	204	0.1	55		
PHP	SZ	IPG		1908	33.92	165	0.2	93	37	3
PHP	SE	ISG		1908	46.12	165	-0.1	93		
TIR	SZ	IPG		1908	40.12	191	0.0	130		
TIR	SE	ISG		1908	57.47	191	0.1	130		

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	19	1119	02.08	40.09	20.02	3	ASN	5	0.2	2.6	6KM S HIMARA
GAP=160					hor.err=2km			ver.err=2km				-ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
TPE	SZ	IPG		1119	05.53	357	0.0	22	26	2.6
TPE	SE	ISG		1119	09.62	357	-0.1	22		
SRN	SZ	IPG		1119	06.41	186	0.0	23	26	2.6
SRN	SE	ISG		1119	10.51	186	-0.1	23		
VLO	SZ	IPG		1119	13.26	313	0.1	61	27	2.6
VLO	SE	ISG		1119	23.75	313	0.1	61		
IGT	SZ	IPG		1119	14.32	157	-0.1	67		
IGT	SE	ISG		1119	25.70	157	0.1	67		
PHP	SZ	IPN		1119	34.51	12	0.1	180		
PHP	SE	ISN		1119	58.86	12	0.2	180		

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	20	0247	52.86	41.77	20.17	17	ASN	3	0.1	2.1	6Km E KURBNESH
GAP=207					hor.err=1km			ver.err=1km				-ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
PHP	SZ	IPG		0247	57.51	115	0.0	24	14	2.0
PHP	SE	ISG		0248	01.42	115	-0.1	24		
PUK	SZ	IPG		0247	59.56	322	-0.1	37	14	2.0

```
PUK  SE ISG      0248 05.56     322        0.1     37
BCI  SZ IPG      0248 04.98     353        0.0     65      15     2.0
BCI  SE ISG      0248 13.64     353        0.1     65


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  21 0133  00.87   43.52   13.71  7    ASN 9  8.2 5.1   CENTRAL ITALY
GAP=330                 hor.err=23km         ver.err=14KM

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
SGRT SZ IPN      0133 01.03
SGRT SE ISN      0133 49.15
MVRN SZ IPN      0133 13.06
MVRN SE ISN      0134 02.17
NOCI SZ IPN      0133 20.15
NOCI SE ISN      0134 25.31
PUK  SZ IPN      0133 38.18
PUK  SE ISN      0135 02.09
BCI  SZ IPN      0133 39.88
BCI  SE ISN      0135 03.58
TIR  SZ IPN      0133 40.47
TIR  SE ISN      0135 30.02
PHP  SZ IPN      0133 30.06
PHP  SE ISN      0135 45.69
TPE  SZ IPN      0133 48.73
TPE  SE ISN      0135 46.07
SRN  SZ IPN      0133 52.01
SRN  SE ISN      0135 51.33


***
Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  21 0600  24.42  40.62    19.81  18   ASN 6  0.1 3.2  6Km N-E BALLSH
GAP=132                 hor.err=1km          ver.err=1KM       -ALBANIA

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
VLO  SZ IPG      0600 30.49     238        0.0     31      38     3.1
VLO  SE ISG      0600 35.86     238        0.0     31
TPE  SZ IPG      0600 32.38     155        0.1     40      41     3.2
TPE  SE ISG      0600 38.16     155       -0.1     40
TIR  SZ IPG      0600 38.97     3          0.0     81      42     3.2
TIR  SE ISG      0600 49.86     3          0.1     81
SRN  SZ IPG      0600 39.66     168        0.1     84      42     3.2
SRN  SE ISG      0600 50.64     168        0.1     84
PHP  SZ IPG      0600 46.45     23         0.0     129     43     3.2
PHP  SE ISG      0601 03.41     23        -0.1     129
BCI  SZ IPN      0600 56.89     6          0.0     195     49     3.4
BCI  SE ISN      0601 21.43     6          0.1     195
```

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	23	1038	15.62	41.88	20.19	7	ASN	3	0.1	2.3	ARRE-MOLLE
GAP=171				hor.err=1km				ver.err=1km				-ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
PHP	SZ	IPG		1038	20.96	325	0.0	30	17	2.3
PHP	SE	ISG		1038	26.10	325	0.0	30		
PUK	SZ	IPG		1038	21.32	188	0.1	31	17	2.3
PUK	SE	ISG		1038	26.31	188	0.0	31		
BCI	SZ	IPG		1038	25.50	302	0.0	55	17	2.3
BCI	SE	ISG		1038	33.59	302	0.1	55		

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	23	2331	16.17	41.07	20.12	7	ASN	3	0.1	2.5	4KM S ELBASAN
GAP=300				hor.err=1km				ver.err=1km				-ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
TIR	SZ	IPG		2331	25.17	320	0.0	37	21	2.5
TIR	SE	ISG		2331	30.41	320	0.0	37		
PHP	SZ	IPG		2331	31.43	138	0.1	73	21	2.5
PHP	SE	ISG		2331	41.30	168	-0.1	73		
PUK	SZ	IPG		2331	37.41	220	0.0	109	21	2.5
PUK	SE	ISG		2331	50.41	220	0.1	109		

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	24	0237	52.90	41.53	20.21	15	ASN	4	0.1	2.7	6KM N-W BULQIZE
GAP=166				hor.err=1km				ver.err=1km				-ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
PHP	SZ	IPG		0237	58.28	49	0.0	26	28	2.7
PHP	SE	ISG		0238	02.36	49	0.0	26		
TIR	SZ	IPG		0237	59.96	225	0.1	35	28	2.7
TIR	SE	ISG		0238	04.97	225	-0.1	35		
PUK	SZ	IPG		0238	03.76	334	-0.1	26	28	2.7
PUK	SE	ISG		0238	07.96	334	0.1	26		
BCI	SZ	IPG		0238	09.42	356	0.0	26	30	2.8
BCI	SE	ISG		0238	11.98	356	0.1	26		

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	25	2206	51.52	41.11	20.05	17	ASN	4	0.1	2.6	4KM W ELBASAN
GAP=304				hor.err=0km				ver.err=1km				-ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
TIR	SZ	IPG		2206	57.80	330	0.1	30	23	2.6
TIR	SE	ISG		2207	02.56	330	0.1	30		

PHP	SZ	IPG	2207 05.23	26	0.1	71	25	2.7
PHP	SE	ISG	2207 14.18	26	0.1	71		
PUK	SZ	IPG	2207 09.80	353	0.1	104	20	2.6
PUK	SE	ISG	2207 23.51	353	-0.1	104		
BCI	SZ	IPN	2207 14.37	0	-0.1	134		
BCI	SE	ISN	2207 33.61	0	-0.1	134		

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	25	2321	00.17	41.28	19.96	12	ASN	3	0.1	2	4KM WEST ELBASAN
GAP=304					hor.err=0km			ver.err=1km				-ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
TIR	SZ	IPG		2321	03.67	312	-0.1	11	12	1.8
TIR	SE	ISG		2321	05.31	312	0.1	11		
PHP	SZ	IPG		2321	11.16	41	0.1	59	15	2.2
PHP	SE	ISG		2321	19.90	41	0.1	59		
PUK	SZ	IPG		2321	14.91	357	0.1	84		
PUK	SE	ISG		2321	27.15	357	-0.1	84		

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	27	0124	22.32	42.18	2327	7	ASN	4	0.6	4.1	BULGARIA
GAP=353					hor.err=3km			ver.err=4km				

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
PHP	SZ	IPN		0125	01.47	258	0.2	241	112	4.1
PHP	SE	ISN		0125	31.44	258	0.1	241		
BCI	SZ	IPN		0125	05.67	276	-0.2	265	125	4.2
BCI	SE	ISN		0125	43.93	276	0.1	265		
PUK	SZ	IPN		0125	07.72	280	0.2	280	111	4.1
PUK	SE	ISN		0125	47.11	280	-0.3	280		
TIR	SZ	IPN		0125	10.94	298	-0.3	298		
TIR	SE	ISN		0125	46.94	298	-0.4	298		

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	27	0438	32.27	40.22	21.75	5	ASN	7	0.1	4.2	GREECE
GAP=265					hor.err=2km			ver.err=1KM				

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
IGT	SZ	IPN		0438	57.96	239	0.1	146		
IGT	SE	ISN		0439	18.50	239	0.1	146		
SRN	SZ	IPN		0439	00.31	275	-0.2	151	122	4.2
SRN	SE	ISN		0439	18.91	275	-0.1	151		
TPE	SZ	IPN		0439	00.71	275	0.1	156	125	4.2
TPE	SE	ISN		0439	19.36	275	-0.1	156		
PHP	SZ	IPN		0439	06.34	326	0.1	197	138	4.3
PHP	SE	ISN		0439	36.01	326	0.1	197		

TIR	SZ	IPN	0439 07.30	309	-0.2	204
TIR	SE	ISN	0439 38.11	309	0.1	204
PUK	SZ	IPN	0439 14.71	323	0.1	256
PUK	SE	ISN	0439 47.99	323	0.3	256
BCI	SZ	IPN	0439 16.73	330	-0.2	277
BCI	SE	ISN	0439 56.11	330	0.2	277

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	27	1329	11.28	41.17	19.94	23	ASN	3	0.1	2.6	18KM S-E TIRANE
GAP=306					hor.err=2km			ver.err=1km				-ALBANIA

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
TIR	SZ	IPG		1329	16.26	341	0.1	20	20	2.4
TIR	SE	ISG		1329	19.80	341	-0.1	20		
PHP	SZ	IPG		1329	23.89	35	-0.1	70	23	2.7
PHP	SE	ISG		1329	33.79	35	0.1	70		
PUK	SZ	IPG		1329	28.32	358	-0.1	96	18	2.5
PUK	SE	ISG		1329	40.79	358	0.1	96		

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	28	1151	53.21								
GAP=					hor.err=			ver.err=				

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
TIR	SZ	IPG		1151	53.21					
TIR	SE	ISG		1151	57.50					

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	28	1354	30.77	37.59	21.25	5	ASN	9	0.4	4.2	GREECE
GAP=324					hor.err=1km			ver.err=2KM				

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
LKD2	SZ	IPN		1354	56.19	142	0.1	146		
LKD2	SE	ISN		1355	14.52	142	-0.1	146		
IGT	SZ	IPN		1355	10.42	229	0.2	146		
IGT	SE	ISN		1355	38.47	229	-0.1	146		
SRN	SZ	IPN		1355	15.87	275	0.2	151	105	4.1
SRN	SE	ISN		1355	49.78	275	-0.1	151		
TPE	SZ	IPN		1355	21.55	318	0.2	156	105	4.1
TPE	SE	ISN		1355	57.79	318	-0.3	156		
VLO	SZ	IPN		1355	25.59	352	0.1	197	125	4.3
VLO	SE	ISN		1356	06.56	352	0.2	197		
TIR	SZ	IPN		1355	36.53	432	-0.2	204	109	4.2
TIR	SE	ISN		1356	25.96	432	-0.1	204		
PHP	SZ	IPN		1355	39.65	458	-0.2	197	108	4.2
PHP	SE	ISN		1356	31.86	458	0.2	197		

```
PUK  SZ IPN      1355 45.97     506        0.2     256     93     4.2
PUK  SE ISN      1356 43.56     506       -0.4     256


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  28 1822  48.14
GAP=                    hor.err=           ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
TIR  SZ IPG      1822 48.14
TIR  SE ISG      1822 51.74


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  28 2051  39.82
GAP=                    hor.err=           ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
TIR  SZ IPG      2051 39.82
TIR  SE ISG      2051 42.13


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  28 2141  45.34
GAP=                    hor.err=           ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
TIR  SZ IPG      2141 45.34
TIR  SE ISG      2141 48.42


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  29 0044  28.56  41.24    20.11  11   ASN 7  0.1 2.8 15KM N ELBASAN
GAP=156                 hor.err=1km        ver.err=1km      -ALBANIA

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
TIR  SZ IPG      0044 33.33     299        0.1     24      27     2.7
TIR  SE ISG      0044 37.32     299       -0.1     24
PHP  SZ IPG      0044 39.70     28        -0.1     56      29     2.8
PHP  SE ISG      0044 46.57     28         0.2     56
PUK  SZ IPG      0044 44.91     349        0.1     91      29     2.8
PUK  SE ISG      0044 57.06     349       -0.1     91
VLO  SZ IPG      0044 46.36     212        0.1     101     30     2.9
VLO  SE ISG      0045 00.02     212       -0.1     101
TPE  SZ IPG      0044 47.50     186        0.2     106
TPE  SE ISG      0045 01.94     186       -0.1     106
BCI  SZ IPG      0044 50.23     359        0.1     125
BCI  SE ISG      0045 07.26     359       -0.1     125
```

```
SRN  SZ IPN      0044 55.07     184       -0.1     151     32     3
SRN  SE ISN      0045 14.67     184        0.2     151


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  29 0045  22.28
GAP=                    hor.err=           ver.err=

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
TIR  SZ IPG      0045 09.12
TIR  SE ISG      0045 13.41


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  29 0356  28.28  40.81    21.70  10   ASN 6  0.1 2.7    GREECE
GAP=267                 hor.err=2km        ver.err=1km

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PHP  SZ IPN      0356 53.44     313        0.2     143     25     2.7
PHP  SE ISN      0357 11.72     313       -0.2     143
TPE  SZ IPN      0356 54.89     249       -0.1     155
TPE  SE ISN      0357 15.38     249        0.1     155
TIR  SZ IPN      0356 56.66     292       -0.1     166     23     2.7
TIR  SE ISN      0357 18.15     292        0.1     166
SRN  SZ IPN      0356 58.99     236        0.2     179     21     2.6
SRN  SE ISN      0357 21.20     236       -0.2     179
IGT  SZ IPN      0356 59.85     221        0.1     185
IGT  SE ISN      0357 23.34     221       -0.1     185
PUK  SZ IPN      0357 02.90     313        0.2     204     26     2.8
PUK  SE ISN      0357 29.01     313       -0.2     204


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  29 2303  08.71  42.04    20.71  7    ASN 4  0.1 2.4  DRAGAS,KOSOVE
GAP=261                 hor.err=1km        ver.err=1km

STAT SP IPHASW D HRMM SECON     AZIMU     RES      DIS     DUR    Md
PHP  SZ IPG      2303 37.63     211       -0.1     45      20     2.4
PHP  SE ISG      2303 43.42     211        0.0     45
BCI  SZ IPG      2303 39.75     305        0.0     64      19     2.4
BCI  SE ISG      2303 49.45     305        0.1     64
PUK  SZ IPG      2303 42.04     271        0.0     68      20     2.4
PUK  SE ISG      2303 50.21     271       -0.1     68


Y   M   D   HM   Sec     Lat     Long   Dep  Net Nr Rms Mag    Epicenter

2013 7  30 1653  15.71  42.02    20.45  7    ASN 3  0.1 2.4  5KM EAST KUKES
GAP=156                 hor.err=1km        ver.err=1km      -ALBANIA
```

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
PHP	SZ	IPG		1655	22.65	182	-0.1	37	17	2.3
PHP	SE	ISG		1655	27.88	182	0.0	37		
PUK	SZ	IPG		1655	24.36	274	0.0	47	19	2.4
PUK	SE	ISG		1655	30.57	274	0.0	47		
PHP	SZ	IPG		1655	25.04	321	0.1	50	20	2.4
PHP	SE	ISG		1655	31.96	321	-0.1	50		

TERMETET E LARGETA (LONG DISTANCE EARTHQUAKES)

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	3	1928	42.50	1.54	30.70					5.7	LAKE ALBERT
GAP=246					hor.err=			ver.err=				REGION

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
SRN	SZ	IP		1929	18.17					
TPE	SZ	IP		1929	20.96					
TIR	SZ	IP		1929	30.01					
PHP	SZ	IP		1929	31.13					
VLO	SZ	IP		1929	32.55					
BCI	SZ	IP		1929	36.85					

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	15	1421	43.06	60.95	25.11		ASN			7.3	SANDWICH
GAP=					hor.err=			ver.err				ISLANDS REGION

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
SRN	SZ	IP		1422	18.06					
TPE	SZ	IP		1422	25.13					
VLO	SZ	IP		1422	26.01					
TIR	SZ	IP		1422	33.74					
PHP	SZ	IP		1422	36.79					
BCI	SZ	IP		1422	42.05					

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	22	2356	01.72	34.52	104.23		ASN			6	GANSU KINE
GAP=					hor.err=			ver.err				

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
BCI	SZ	IP		2356	25.01					
PHP	SZ	IP		2356	43.48					
PUK	SZ	IP		2356	28.44					
TIR	SZ	IP		2356	48.64					
VLO	SZ	IP		2356	36.79					
TPE	SZ	IP		2356	49.11					

Y	M	D	HM	Sec	Lat	Long	Dep	Net	Nr	Rms	Mag	Epicenter
2013	7	30	0533	43.85	40.25	25.86	7	ASN	7		5.1	AEGEAN SEA

GAP= hor.err= ver.err

STAT	SP	IPHASW	D	HRMM	SECON	AZIMU	RES	DIS	DUR	Md
TPE	SZ	IP		0534	25.36					
SRN	SZ	IP		0534	18.76					
PHP	SZ	IP		0534	18.89					
TIR	SZ	IP		0534	26.11					
VLO	SZ	IP		0534	45.53					
PUK	SZ	IP		0534	24.90					
BCI	SZ	IP		0534	23.40					

PËRSHKRIM MAKROSIZMIK I TËRMETEVE TË NDJESHME NË VENDIN TONË

Intensiteti i tërmetit në epiqendër I_0 është përcaktuar me formulën $I_0 =$ ——. Intensiteti I në qytete është përcaktuar nga informacioni i marrë mbi ndjeshmerinë e tërmetit nga emergjencat civile si dhe burime të tjera.

MACROSEISMIC DESCRIPTION OF EARTHQUAKES FELT IN OUR COUNTRY

The epicentral Intensity of earthquake I_0 is determined by the formula $I_0 =$ ——. The felt

informacion of earthquakes in inhebitance zones provide by civil emergencies and other source is used to determine the Intensity I.

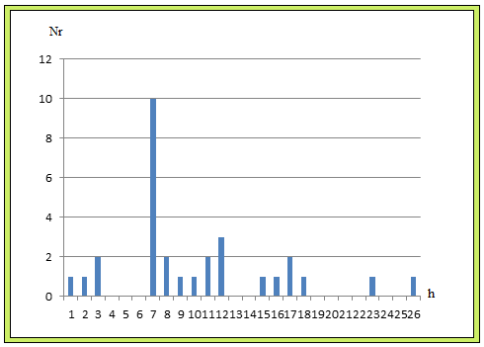
Nr	D a t a (D a t e)	Kohëndodhja (Origin time)	Epiqendra dhe të dhëna makrosizmike EMS-98 (Epicenter and macroseismic data EMS-98)
1	3.07.2013	01:07:31.7	Epiqendra: 40.95V; 20.07L, 8 km në Veri të qytetit Gramshit. Intensiteti i tërmetit në epiqendër I_0=III-IV balle Ndjerë: III ballë ne qytetin e Gramshit. (Epicentre: 41.95N; 20.07E, 8 km North of Gramshi town. Epicentral Intensity I_0=III-IV. Felt: III at Gramshi town
2	21.07.2013	13:15:14.9	Epiqendra: 40.62V; 19.81L, 6 km në Verilindje të qytetit Ballshit. Intensiteti i tërmetit në epiqendër I_0=III balle Ndjerë: III ballë ne qytetin e Ballshit, (Epicentre: 40.62N; 19.18E, 6 km North-East of Ballshi town. Epicentral Intensity I_0=III. Felt: III at Ballshi town.

KATALOGU I TËRMETEVE MUJORE (THE MONTHLY EARTHQUAKE CATALOG)

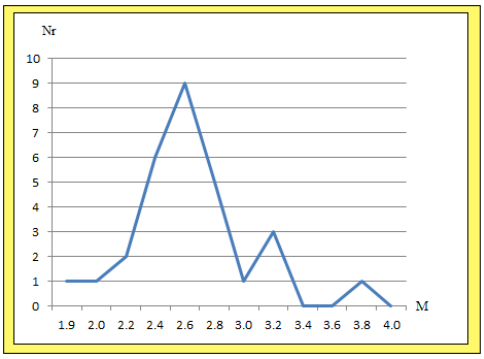
Data Date *vvvv/mm/dd*	Koha Time *hh:mm:ss*	Gjer. Lat	Gjat Long.	Thell. Depth *(km)*	Nr. N_0.	St. St	Gab Rms	Mag. *(M_D)*	Vendndodhja Location
2013 7 1	1528 37.09	41.86	20.50	11	3	0.2	2.8		RADOMIRE DIBER
2013 7 2	0815 21.83	39.22	18.85	10	7	0.1	3.7		SOUTHERN ITALY
2013 7 2	1045 23.64	40.22	21.86	20	9	0.2	4.7		GREECE
2013 7 3	0101 57.57	40.21	21.84	5	5	0.2	3.3		GREECE

2013	7	3	0107	31.73	40.95	20.07	1	6	0.1	3.2	GRAMSH-ALBANIA
2013	7	3	1309	11.19	40.12	21.84	9	8	0.2	4.2	GREECE
2013	7	3	1328	23.91	40.12	21.85	10	9	0.3	4.2	GREECE
2013	7	3	1454	14.17	40.15	21.85	1	9	0.4	3.6	GREECE
2013	7	3	1933	24.26	40.18	21.90	14	9	0.2	3.4	GREECE
2013	7	5	1048	21.38	42.43	19.30	7	3	0.2	3.2	MONTENEGRO
2013	7	5	2151	25.75	40.27	20.66	12	3	0.4	2.5	7KM SOUTH ERSEKA
2013	7	8	0920	05.59	41.18	20.15	3	5	0.1	2.9	10 KM N-E ELBASAN
2013	7	8	2030	32.50	41.50	20.43	2	3	0.1	2.3	GJORICE,DIBER
2013	7	9	0818	13.77	42.57	19.76	7	3	0.1	2.7	4KM EAST VERMOSH
2013	7	11	0049	13.96	41.48	19.76	16	3	0.1	2.4	3KM EAST FUSHE-KRUJE
2013	7	11	0650	27.20	40.29	19.69	26	4	0.1	2.5	26KM S-E VLORE
2013	7	11	2316	45.10	41.09	20.18	9	4	0.1	2.7	SHUSHICE,ELBASAN
2013	7	11	2336	53.73	41.09	20.21	7	4	0.1	2.8	SHUSHICE,ELBASAN
2013	7	12	0228	44.25	41.91	20.34	7	3	0.1	2.4	SKAVICE,KUKES
2013	7	12	0330	48.25	41.09	20.20	7	3	0.1	2.5	SHUSHICE,ELBASAN
2013	7	13	1254	51.08	41.04	20.23	8	3	0.2	2.6	13KM S-E ELBASAN
2013	7	15	0031	08.24	42.48	20.06	7	4	0.1	2.6	11KM NORTH B.CURRI
2013	7	16	2007	50.22	38.23	21.10	8	9	0.2	3.9	GREECE
2013	7	17	0124	01.58	41.26	20.32	12	3	0.3	2.1	23KM N-E ELBASAN
2013	7	18	1908	17.09	42.49	20.16	8	4	0.1	2.6	16KM NORTH B.CURRI
2013	7	19	1119	02.08	40.09	20.02	3	5	0.2	2.6	6KM SOUTH HIMARA
2013	7	20	0247	52.86	41.77	20.17	17	3	0.1	2.1	6Km EAST KURBNESH
2013	7	21	0600	24.42	40.62	19.81	18	6	0.1	3.2	6Km N-E BALLSH
2013	7	23	1038	15.62	41.88	20.19	7	3	0.1	2.3	ARRE-MOLLE
2013	7	23	2331	16.17	41.07	20.12	7	3	0.1	2.5	4KM SOUTHERN ELBASAN
2013	7	24	0237	52.90	41.53	20.21	15	4	0.1	2.7	6KM N-W BULQIZE
2013	7	25	2206	51.52	41.11	20.05	17	4	0.1	2.6	4KM WESTERN ELBASAN
2013	7	25	2321	00.17	41.28	19.96	12	3	0.1	2	4KM WESTERN ELBASAN
2013	7	27	1329	11.28	41.17	19.94	23	3	0.1	2.6	18KM S-E TIRANE
2013	7	28	1354	30.77	37.59	21.25	5	9	0.4	4.2	GREECE
2013	7	29	0044	28.56	41.24	20.11	11	7	0.1	2.8	15KM NORTH ELBASAN
2013	7	29	0356	28.28	40.81	21.70	10	6	0.1	2.7	GREECE
2013	7	29	2303	08.71	42.04	20.71	7	4	0.1	2.4	DRAGAS,KOSOVE
2013	7	30	1653	15.71	42.02	20.45	7	3	0.1	2.4	5KM EAST KUKES

Karakteristikat e pergjithshme (General Characteristics)	Vlerat (Data values)
➢ *Ngjarje sizmike të ndodhura në kuadratin (39-43 V; 18.5-21.5 L)*	30
Events occured within quandrant	
➢ *Ngjarje sizmike të ndodhura brenda kufijve shtetërore*	27
Events occured inside state boundaries	
➢ *Thellësia mesatare e ngjarjeve sizmike*	10
Mean hypocenter depth	
➢ *Thellësia maksimale*	26
Maximum hypocenter depth	
➢ *Magnituda lokale minimale e regjistruar*	2.0
Minimum recorded local magnitude	
➢ *Magnituda lokale maksimale e regjistruar*	3.7
Maximum recorded local magnitude	
➢ *Intensiteti sizmik maksimal ne epiqendër*	IV
Maximum seismic intensity	



Grafiku i shpërndarjes së numurit të ngjarjeve sizmike mujore në vartesi të thellësisë (djathtas) magnitudës (majtas)



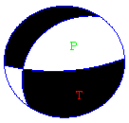
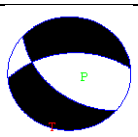
Distribution graphic of monthly seismic event number according to depth (right) magnitude (left)

Zgjidhja e mekanizmit vatror (ZMV)

Për zgjidhjen e mekanizmit të vatres janë përdorur polaritetet e hyrjeve të para P (Pg/Pn), të përcaktuara mbi format valore që shprehin funksionin kohor të burimit sizmik perkatës, në fushën e shpejtësisë. Janë përdorur regjistrimet në bandë të gjere frekuenciale (0.2 – 30 Hz), të cilat janë modeluar nëpermjet filtrave band-pass: 1.0-5.0 Hz, 2.0-10 Hz dhe 0.1-3.0 Hz. Për të arritur zgjidhjen optimale janë përdorur edhe raporti i amplitudave të valëve volumore AMPSg/AMPPg, (AMPSn/AMPPn), të cilat janë lexuar mbi komponentet e transformuara nga sistemi koordinativ gjeografik në atë sferik (vertikal, radial dhe transversal). Eshtë realizuar një kerkim në rrjetin koordinativ me interval 5.0 – 10 grad, duke vendosur kriteret për gabimin në polaritetet e përdorura. Për zgjidhjen përfundimtare është përdorur programi FOCMEC (Snoke. et al., 1984), ndërsa për të optimizuar zgjidhjen është përdorur programi HASH (Hardebeck & Shearer, 2003).

Focal Mechanism Solution (FMS)

For focal mechanism solution, the first onset polarity of P (Pg/Pn) are used, picked on the source time function respective waveforms. This is done for the velocity field recordings. Broadband recordings are used within the frequency range 0.2-30 Hz, witch are modeled by band-pass filtering in the ranges: 1.0-5.0 Hz, To achieve the optimum solution also the amplitude ratio of the type AMPSg/AMPPg, (AMPSn/AMPPn), are used. These amplitudes are red on rotated and corrected components, from the geographic system to the spherical one (vertical, radial and transversal). A grid search at the 5.0-10 degree cells interval has been applied, setting first the allowed error threshold for polarity readings. For final solution the FOCMEC program has been used (Snoke. et al., 1984). Whereas, to optimize the solution HASH routine(Hardebeck& Shearer, 2003), has been applied as well.

Identifikimi i ngjarjes (Event ID)	Parametrat e burimit (Source paremeters)	Magnituda (Magnitude)	Parametrat e Mekanizmit (Focal Mechanism parameters)	Tipi (Focal Type)
2013.07.03.01:07	40.96 (N) 20.07 (E) 1 (km)	3.2	P1: 87, 71, -69 P2: 215.9, 28.8, -137.4 T: 160.3, 22.9 P: 27.2, 58.2	
2013.07.21.06:00	40.62 (N) 19.81 (E) 18 (km)	3.2	P1: 131, 50, -57 P2: 265.7, 50, -57 T: 18.4, 00 P: 108.4, 65.3	

Harta e epiqendrave të tërmeteve

Legjenda e Hartes

● **Shenja** ● ● ● ●

Magnituda 1-3 3-4 4-5 >5