

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

April

2019

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GENERAL BULLETIN INFORMATION

The National Centre for Geophysical Research is a governmental agency established 1975 in Lebanon by the National Council for Scientific Research (CNRS). The mission of the Centre, among other assignments, is the monitoring of seismic activity within the national territory. Currently, the national seismic network is under deployment; it has been officially registered as GRAL, an acronym for Geophysical Research Arrays of Lebanon. Station coordinates and status are given below.

Since 1993, the Centre has been participating in a regional initiative by the UNESCO and the USGS known as RELEMR, i.e. Reducing Earthquake Losses in the Eastern Mediterranean Region.

Within this framework, the Centre routinely contributes to the database set up for this purpose and maintained by the Euro-Mediterranean Seismological Centre (EMSC). For coherence, the Centre has adopted the recommended seismic analysis system SEISAN developed by Jens Havskov and Lars Ottemoller from the University of Bergen, Norway.

The localization program currently used for locating earthquakes is Hypocenter (Lienert et al., 1986). Plane parallel layers are assumed for local and regional events, while the IASPEI travel time tables are used for distant events.

The velocity model used for all local and regional events is the one currently adopted by the RELEMR initiative.

P-wave velocity (km/sec)	depth to top of layer (km)
6.2	0.0
6.8	14.0
8.05	34.0
8.25	50.0
8.5	80.0

Magnitudes are calculated from the coda duration. The coda wave magnitude is estimated via the formula:

$$M_c = 0.08 + 1.63 * \log_{10}(T) + 0.0009 * D.$$

where T is the coda duration (sec) and D is the epicentral distance (km). The coefficients above were adopted at the outset of our Centre in 1980 and thus are still in use for the sake of continuity.

All available coda values are used for magnitude calculations. No station corrections are used for either travel times or magnitudes calculations. The Vp/Vs velocity ratio used in both layered models above is 1.74.

As a general policy, neither depths, nor epicenters, are fixed unless stated otherwise since this might restrict later use of the data. Consequently, some event locations might be unrealistic such as zero depth earthquakes or teleseismic locations off by 1000 km. However, the locations are based on the available data and reflect the localization procedure and the models used.

STATIONS USED

The stations listed below are operated by the National Centre for Geophysical Research. They constitute the basic setup of the National Seismic Network of Lebanon.

However, readings from other cooperating agencies are also used in locating the events and thus more stations may appear in the event lists than in the station list; it is worth mentioning the systematic use of arrival times from the Cypriot seismic network CSS in order to constrain events corresponding to an active zone off the Lebanese shorelines.

STATION	LATITUDE	LONGITUDE	HEIGHT (m)	NAME	COMMENTS
BHL	3354.25N	3539.25E	1000	BHANNES	Opened May 1980
HWQ	3416.68N	3556.78E	1161	HAWQA	Opened Jan 2001
MATL	3329.32N	3519.78E	5	MATARIH	Nov2000-Sep2012
FKH	3414.69N	3624.61E	1152	FAKEHEH	Opened Dec 2004
RCY	3329.79N	3550.14E	1370	RACHAYA	Opened Jun 2006
BEYL	3352.30N	3529.59E	49	BEIRUT	Opened Jul 2006
NAQL	3307.02N	3508.46E	83	NAQOURA	Jul2008-Jan2012
DQRL	3342.34N	3534.21E	963	DEIR QAMAR	Opened Mar 2010
QRWL	3332.86N	3540.93E	875	QARAOUN	Opened Oct 2011
SHBL	3320.90N	3544.63E	1422	CHEBAA	Opened Oct 2011
ZAHL	3351.48N	3553.12E	1211	ZAHLE	Opened Aug 2015
BEIL	3432.50N	3611.08E	572	BEINO	Opened Jan 2017

REGIONAL AND DISTANT EARTHQUAKES

Because regional events and teleseisms are not localized, but simply identified, EMSC determination data are given along with phase arrivals (in general first arrival) at the stations of our network.

MACROSEISMIC DATA

Macroseismic data, if available, are included in the bulletin.

MONTHLY EPICENTER MAPS

Maps will be found on the last page.

ELECTRONIC PUBLICATION

This provisional bulletin is available for download in pdf format on:
<http://www.cnrs.edu.lb/grdownload.html>

REFERENCES

- Havskov, J. and Ottemoller, L.(2001). SEISAN: The Earthquake Analysis Software.
-version 7.2-
Institute of Solid Earth Physics, University of Bergen.
<http://www.ifjf.uib.no/seismo/software/seisan.html>
- Lienert, B.R., Berg, E. and Frazer, L.N.(1986). Hypocenter: An earthquake location method using centered, scaled, and adaptively least squares. Bull. Seism. Soc. Am., 76., pp 771-783.

Abbreviations:

TIME: Origin time in UTC (hr. min. and sec.) or data file onset time if event is not located.

LAT: Latitude of epicenter

LON: Longitude of epicenter

DEPTH: Focal depth in kilometer (trailing F indicates fixed depth)

AGENCY: REL throughout the bulletin, aka. REsearch Lebanon

MAGNITUDES: Up to 3 different magnitudes can be given followed by type and reporting agency, e.g. 3.1 MC REL - coda magnitude calculated according to above mentioned formula.

EMSC: Euro-Mediterranean Seismological Centre.

OT: Origin Time

RMS: Root mean square value of travel time residuals

STAT: Station code

CO: Component; S:short period, L:long period, B:broadband.

DIST: Epicenter distance (km)

AZI: Azimuth from source to station

PHAS: Phase; The first letter characterizes onset E(mergent) or I(mpulsive)

P: Polarity (C for compression, D for dilatation)

HR: Hour

MN: Minute

SECON: Seconds

TRES: Residual (seconds)

CODA: Signal duration in seconds

AMPL: Ground Amplitude ($0.5 \times (\text{peak to peak})$), (nm) at period PERI

PERI: Period where amplitude is measured

BAZ: Back azimuth (station to event)

ARES: Back azimuth residual

VELO: Apparent phase velocity (km/sec)

WT: Weight of phase in the location

*: An asterisk before the phase arrival time implies a potential timing error. If an S phase is read, differential S-P times will be used in the hypocenter location.

April 2 2019 Hour: 0:10 2.8 Lat: 33.85N Lon: 37.44E Depth: 1 Agency: REL Regional
 Magnitudes: 3.3MC REL Rms: 0.3 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	105	295	EP		010	19.63	-0.04	84						1.0
FKH	SN	105	295	ES		010	32.23	0.05							1.0
BEIL	SZ	139	304	EP		010	24.91	-0.07							1.0
ZAHL	SZ	144	271	EP		010	25.55	-0.18							1.0
HWQ	BZ	146	290	EP		010	26.15	0.11							1.0
HWQ	BN	146	290	ES		010	43.20	-0.05							1.0
RCY	SZ	154	256	EP		010	26.87	-0.33							1.0
BHL	BZ	165	273	EP		010	28.94	0.06							1.0
QRWL	SZ	166	259	EP		010	29.01	0.00							1.0
SHBL	SZ	167	251	EP		010	29.32	0.19							1.0
DQRL	SZ	174	265	EP		010	30.27	0.14							1.0
BEYL	SZ	180	271	EP		010	32.68	1.69							0.2

April 2 2019 Hour: 20:33 50.4

Agency: Distant

EMSC OT=20:33:50.4 24.36S 179.96W 527Km M=4.7 SOUTH OF FIJI ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2052	35.48								
BHL	BZ			EP		2052	36.75								
DQRL	SZ			EP		2052	37.38								
FKH	SZ			EP		2052	35.31								
HWQ	BZ			EP		2052	35.41								
RCY	SZ			EP		2052	37.10								
QRWL	SZ			EP		2052	37.08								
SHBL	SZ			EP		2052	37.20								
ZAHL	SZ			EP		2052	36.55								

April 2 2019 Hour: 21:35 32.4

Agency: Distant

EMSC OT=21:35:32.4 52.17N 178.07E 19Km M=6.4 RAT ISLANDS, ALEUTIAN ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2148	20.97								
HWQ	BZ			EP		2148	20.19								
BEIL	SZ			EP		2148	17.93								
FKH	SZ			EP		2148	19.34								
SHBL	SZ			EP		2148	23.39								
RCY	SZ			EP		2148	22.53								

April 3 2019 Hour: 0:38 5.5

Lat: 33.51N Lon: 35.95E Depth: 2 Agency: REL Local

Magnitudes: 2.8MC REL

Rms: 0.1 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	11	260	EP		038	7.30	-0.08	47						1.0
RCY	SN	11	260	ES		038	8.75	0.01							1.0
QRWL	SZ	25	279	EP		038	9.66	0.04							1.0
SHBL	SZ	27	226	EP		038	9.86	-0.00							1.0
SHBL	SN	27	226	ES		038	13.13	0.07							1.0
ZAHL	SZ	39	351	EP		038	11.87	0.07							1.0
DQRL	SZ	41	301	EP		038	12.12	-0.07							1.0
BHL	BZ	51	328	EP		038	13.69	-0.13							1.0
BHL	BN	51	328	ES		038	20.01	0.07							1.0
HWQ	BZ	85	360	EP		038	19.23	0.01							1.0
FKH	SZ	92	28	EP		038	20.30	-0.02							1.0
BEIL	SZ	116	11	EP		038	24.31	0.05							1.0

April 3 2019 Hour: 1:52 56.9

Agency: Distant

EMSC OT=01:52:56.9 22.95N 120.85E 10Km M=5.4 TAIWAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2 4	28.75								
HWQ	BZ			EP		2 4	30.72								
BHL	BZ			EP		2 4	27.98								
FKH	SZ			EP		2 4	28.68								
RCY	SZ			EP		2 4	32.47								
SHBL	SZ			EP		2 4	33.24								

April 4 2019 Hour: 13:24 15.7

Lat: 33.84N Lon: 36.10E Depth: 7 Agency: REL Local

Magnitudes: 2.9MC REL

Rms: 0.1 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	20	275	EP		1324	19.28	-0.00							1.0
ZAHL	SN	20	275	ES		1324	21.88	-0.02							1.0
BHL	BZ	42	279	EP		1324	22.46	-0.18							1.0
RCY	SZ	46	213	EP		1324	23.18	-0.07	53						1.0
RCY	SN	46	213	ES		1324	28.87	0.05							1.0
HWQ	BZ	50	344	EP		1324	23.98	0.01	52						1.0
HWQ	BN	50	344	ES		1324	30.16	0.09							1.0
QRWL	SZ	51	230	EP		1324	24.18	0.12							1.0
DQRL	SZ	52	253	EP		1324	24.21	0.05							1.0
FKH	SZ	53	33	EP		1324	24.34	-0.05							1.0
SHBL	SZ	64	211	EP		1324	26.19	-0.00							1.0
BEIL	SZ	78	6	EP		1324	28.53	0.17							0.2

April 4 2019 Hour: 15:1 18.7

Agency: REL Regional

EMSC OT=15:01:18.7 37.49N 29.36E 6Km M=4.4 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		15 2	52.03								
BHL	BZ			EP		15 2	51.17								
BEIL	SZ			EP		15 2	53.28								
ZAHL	SZ			EP		15 2	54.07								
QRWL	SZ			EP		15 2	54.73								
FKH	SZ			EP		15 2	55.59								
RCY	SZ			EP		15 2	56.77								
SHBL	SZ			EP		15 2	57.43								

April 4 2019 Hour: 17:31 11.2

Agency: REL Regional

EMSC OT=17:31:11.2 38.39N 39.12E 9Km M=4.8 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1732	18.65								
FKH	SZ			EP		1732	20.79								
HWQ	BZ			EP		1732	22.85								
ZAHL	SZ			EP		1732	29.10								
BHL	BZ			EP		1732	29.01								
DQRL	SZ			EP		1732	32.61								
RCY	SZ			EP		1732	34.24								
QRWL	SZ			EP		1732	33.98								
SHBL	SZ			EP		1732	36.98								

April 4 2019 Hour: 17:52 19.1

Lat: 33.42N Lon: 35.47E Depth: 11 Agency: REL Local

Magnitudes: 2.6MC REL

Rms: 0.1 secs

NABATIYE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	24	54	EP		1752	23.58	0.08							1.0
QRWL	SN	24	54	ES		1752	26.76	0.02							1.0
SHBL	SZ	27	107	EP		1752	23.84	-0.04							1.0
DQRL	SZ	33	16	EP		1752	24.92	0.11	35						1.0
RCY	SZ	35	76	EP		1752	25.19	0.06							1.0
RCY	SN	35	76	ES		1752	29.56	-0.01							1.0
BHL	BZ	56	18	EP		1752	28.33	-0.11							1.0

ZAHL	SZ	62	38	EP	1752	29.18-0.16	1.0
HWQ	BZ	105	25	EP	1752	35.82 0.06	1.0

April 5 2019 Hour: 9:56 53.5

Agency: Distant

EMSC OT=09:56:53.5 30.44N 138.63E 400Km M=5.8 IZU ISLANDS, JAPAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		10	8 32.90								
BHL	BZ			EP		10	8 36.23								
DQRL	SZ			EP		10	8 37.48								
FKH	SZ			EP		10	8 33.12								
HWQ	BZ			EP		10	8 34.03								
QRWL	SZ			EP		10	8 37.25								
RCY	SZ			EP		10	8 37.08								
SHBL	SZ			EP		10	8 37.76								
ZAHL	SZ			EP		10	8 35.95								

April 6 2019 Hour: 21:55 3.2

Agency: Distant

EMSC OT=21:55:03.2 6.86S 125.05E 567Km M=6.3 BANDA SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		22	7 16.94								
BHL	BZ			EP		22	7 17.50								
DQRL	SZ			EP		22	7 18.93								
FKH	SZ			EP		22	7 16.80								
HWQ	BZ			EP		22	7 17.15								
RCY	SZ			EP		22	7 18.30								
SHBL	SZ			EP		22	7 18.69								
ZAHL	SZ			EP		22	7 18.51								

April 7 2019 Hour: 2:42 44.6

Lat: 33.73N

Lon: 35.50E

Depth: 0

Agency: REL

Local

Magnitudes: 2.2MC REL

Rms: 0.1 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	7	110	EP		242	45.57-0.17		20						1.0
DQRL	SN	7	110	ES		242	46.54-0.05								1.0
BHL	BZ	24	36	EP		242	48.50-0.02								1.0
QRWL	SZ	26	140	EP		242	48.81-0.02								1.0
QRWL	SE	26	140	ES		242	52.06 0.10								1.0
ZAHL	SZ	39	68	EP		242	50.98 0.15								1.0
RCY	SZ	40	129	EP		242	51.34 0.22								0.2

April 8 2019 Hour: 2:28 21.6

Lat: 34.22N

Lon: 36.20E

Depth: 0

Agency: REL

Local

Magnitudes: 2.7MC REL

Rms: 0.1 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	20	84	EP		228	24.74-0.05		38						1.0
FKH	SN	20	84	ES		228	27.15 0.00								1.0
HWQ	BZ	24	284	EP		228	25.40-0.05								1.0
BEIL	SZ	35	358	EP		228	27.29 0.02								1.0
ZAHL	SZ	50	215	EP		228	29.61-0.04								1.0
BHL	BZ	62	235	EP		228	31.60 0.08								1.0
RCY	SZ	88	203	EP		228	35.60-0.11								1.0
RCY	SN	88	203	ES		228	46.09-0.06								1.0
SHBL	SZ	106	203	EP		228	38.90 0.21								1.0

April 8 2019 Hour: 9:46 34.9

Agency: REL Regional

EMSC OT=09:46:34.9 38.37N 39.07E 5Km M=3.7 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		947	43.62								
FKH	SZ			EP		947	45.91								
HWQ	BZ			EP		947	47.94								

April 8 2019 Hour: 9:56 59.6 Lat: 34.45N Lon: 36.77E Depth: 0 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.1 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	40	235	EP		957	5.99	0.07	68						1.0
FKH	SN	40	235	ES		957	10.93	0.07							1.0
BEIL	SZ	54	281	EP		957	8.38	0.03							1.0
BEIL	SN	54	281	ES		957	14.87	0.02							1.0
HWQ	BZ	78	256	EP		957	12.18	0.03							1.0
HWQ	BN	78	256	ES		957	21.39	0.08							1.0
RCY	SZ	137	219	EP		957	21.68	0.11							1.0
DQRL	SZ	138	233	EP		957	21.78	0.01							1.0
QRWL	SZ	142	225	EP		957	22.28	0.03							1.0
SHBL	SZ	155	218	EP		957	24.17	0.08							1.0

April 8 2019 Hour: 16:54 38.7 Lat: 33.79N Lon: 35.78E Depth: 6 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	13	50	EP		1654	41.01	0.02							1.0
BHL	BZ	18	318	EP		1654	41.63	0.07	44						1.0
DQRL	SZ	21	245	EP		1654	42.29	0.00							1.0
DQRL	SN	21	245	ES		1654	45.01	0.03							1.0
QRWL	SZ	28	199	EP		1654	43.22	0.08							1.0
RCY	SZ	33	171	EP		1654	43.99	0.04							1.0
RCY	SN	33	171	ES		1654	48.03	0.02							1.0
SHBL	SZ	49	184	EP		1654	46.68	0.09							1.0
HWQ	BZ	57	16	EP		1654	48.03	0.16							1.0
FKH	SZ	77	49	EP		1654	51.08	0.09							1.0
BEIL	SZ	92	24	EP		1654	53.45	0.03							1.0

April 8 2019 Hour: 17:38 21.5 Agency: REL Regional
EMSC OT=17:38:21.5 38.77N 38.15E 5Km M=4.0 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1739	31.06								
FKH	SZ			EP		1739	32.89								
HWQ	BZ			EP		1739	35.14								

April 8 2019 Hour: 20:10 48.3 Lat: 33.58N Lon: 35.44E Depth: 17 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

CHOUF REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	18	42	EP		2010	52.37	0.00	28						1.0
DQRL	SN	18	42	ES		2010	55.40	0.01							1.0
QRWL	SZ	23	100	EP		2010	52.88	0.04							1.0
RCY	SZ	38	105	EP		2010	54.93	0.05							1.0
SHBL	SZ	38	133	EP		2010	55.11	0.05							1.0
SHBL	SN	38	133	ES		2011	0.08	0.01							1.0
BHL	BZ	41	29	EP		2010	55.30	0.03							1.0
ZAHL	SZ	51	53	EP		2010	56.91	0.05							1.0

April 9 2019 Hour: 8:22 8.6 Agency: REL Regional
EMSC OT=08:22:08.6 35.42N 29.92E 10Km M=4.3 EASTERN MEDITERRANEAN SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		823	25.76								
QRWL	SZ			EP		823	26.30								
BEIL	SZ			EP		823	26.90								
SHBL	SZ			EP		823	28.18								
RCY	SZ			EP		823	27.91								

April 9 2019 Hour: 15: 9 4.5 Lat: 33.47N Lon: 35.70E Depth: 4 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	8	349	EP		15 9	6.02	-0.01	44						1.0
QRWL	SN	8	349	ES		15 9	7.17	-0.01							1.0
RCY	SZ	13	79	EP		15 9	6.79	0.05							1.0
SHBL	SZ	15	164	EP		15 9	6.98	-0.02							1.0
SHBL	SN	15	164	ES		15 9	8.87	0.00							1.0
DQRL	SZ	28	335	EP		15 9	9.18	0.06							1.0
ZAHL	SZ	46	22	EP		15 9	11.88	-0.05							1.0
BHL	BZ	48	355	EP		15 9	12.22	-0.02							1.0

April 9 2019 Hour: 16:11 36.9 Lat: 33.79N Lon: 35.77E Depth: 6 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	13	53	EP		1611	39.32	0.00							1.0
BHL	BZ	17	321	EP		1611	39.68	-0.16	46						1.0
BHL	BN	17	321	ES		1611	42.09	0.04							1.0
DQRL	SZ	21	244	EP		1611	40.44	0.06							1.0
DQRL	SN	21	244	ES		1611	43.03	0.03							1.0
QRWL	SZ	28	197	EP		1611	41.34	-0.13							1.0
RCY	SZ	33	169	EP		1611	42.23	-0.04							1.0
RCY	SN	33	169	ES		1611	46.30	0.02							1.0
SHBL	SZ	49	183	EP		1611	44.89	0.09							1.0
HWQ	BZ	57	16	EP		1611	46.20	0.08							1.0
FKH	SZ	78	49	EP		1611	49.47	-0.02							1.0
BEIL	SZ	92	24	EP		1611	51.76	0.01							1.0

April 10 2019 Hour: 21: 2 42.2 Lat: 36.42N Lon: 36.11E Depth: 0 Agency: REL Regional
Magnitudes: 3.7MC REL Rms: 0.1 secs

TURKEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	208	178	EP		21 3	14.19	0.01	133						1.0
BEIL	SN	208	178	ES		21 3	37.80	-0.03							1.0
HWQ	BZ	238	184	EP		21 3	17.70	-0.22							1.0
HWQ	BN	238	184	ES		21 3	44.35	0.01							1.0
FKH	SZ	243	174	EP		21 3	18.65	0.15							1.0
BHL	BZ	282	189	EP		21 3	23.45	0.07							1.0
ZAHL	SZ	285	184	EP		21 3	23.44	-0.30							1.0
DQRL	SZ	305	189	EP		21 3	26.31	0.08							1.0
QRWL	SZ	321	187	EP		21 3	28.38	0.19							1.0
RCY	SZ	325	185	EP		21 3	28.87	0.10							1.0
RCY	SN	325	185	ES		21 4	3.23	0.02							1.0
SHBL	SZ	342	186	EP		21 3	30.82	-0.08							1.0

April 11 2019 Hour: 8:18 19.9 Agency: Distant
EMSC OT=08:18:19.9 40.43N 143.31E 10Km M=6.1 OFF EAST COAST OF HONSHU, JAPAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		830	27.90								
FKH	SZ			EP		830	28.50								
BHL	BZ			EP		830	31.16								
HWQ	BZ			EP		830	28.38								
RCY	SZ			EP		830	32.58								

April 12 2019 Hour: 11:40 48.2 Agency: Distant
EMSC OT=11:40:48.2 1.81S 122.59E 10Km M=6.8 SULAWESI, INDONESIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1153	38.91								
BHL	BZ			EP		1153	40.18								
FKH	SZ			EP		1153	38.16								
HWQ	BZ			EP		1153	38.46								

RCY	SZ	EP	1153	40.92
SHBL	SZ	EP	1153	40.55

April 12 2019 Hour: 19:52 13.1

Agency: REL Regional

EMSC OT=19:52:13.1 35.53N 29.46E 2Km M=3.7 EASTERN MEDITERRANEAN SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1953	35.69								
QRWL	SZ			EP		1953	36.23								
ZAHL	SZ			EP		1953	35.42								
BEIL	SZ			EP		1953	36.72								
RCY	SZ			EP		1953	37.64								

April 13 2019 Hour: 9:50 3.1

Lat: 34.18N Lon: 36.46E Depth: 0 Agency: REL Local

Magnitudes: 3.0MC REL

Rms: 0.1 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	8	324	EP		950	4.39-0.10		58						1.0
BEIL	SZ	47	327	EP		950	10.73-0.02								1.0
BEIL	SN	47	327	ES		950	16.52 0.12								1.0
HWQ	BZ	49	283	EP		950	10.95-0.05								1.0
HWQ	BN	49	283	ES		950	16.77-0.06								1.0
ZAHL	SZ	65	236	EP		950	13.46-0.07								1.0
BHL	BZ	81	248	EP		950	16.35 0.17								1.0
RCY	SZ	96	217	EP		950	18.66 0.07								1.0
DQRL	SZ	98	238	EP		950	18.91-0.05								1.0
QRWL	SZ	101	226	EP		950	19.51 0.08								1.0
SHBL	SZ	114	216	EP		950	21.47-0.08								1.0

April 15 2019 Hour: 4:41 29.5

Agency: REL Regional

EMSC OT=04:41:29.5 38.76N 38.17E 5Km M=4.4 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		442	39.70								
FKH	SZ			EP		442	42.19								
HWQ	BZ			EP		442	44.68								
BHL	BZ			EP		442	52.52								
DQRL	SZ			EP		442	55.76								
RCY	SZ			EP		442	57.45								
QRWL	SZ			EP		442	56.73								
SHBL	SZ			EP		442	59.15								

April 15 2019 Hour: 17:42 26.6

Agency: REL Regional

EMSC OT=17:42:26.6 36.40N 28.78E 2Km M=3.9 DODECANESE-TURKEY BORDER REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1743	56.71								
HWQ	BZ			EP		1743	58.34								
QRWL	SZ			EP		1743	59.27								
BEIL	SZ			EP		1743	58.99								
ZAHL	SZ			EP		1743	58.77								
RCY	SZ			EP		1744	1.05								
SHBL	SZ			EP		1744	1.19								
FKH	SZ			EP		1744	2.97								

April 15 2019 Hour: 20:11 0.0

Lat: 36.22N Lon: 36.00E Depth: 13 Agency: REL Regional

Magnitudes: 3.4MC REL

Rms: 0.4 secs

TURKEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	187	175	EP		2011	27.87-0.14		82						1.0
BEIL	SN	187	175	ES		2011	47.90-0.81								1.0
HWQ	BZ	216	181	EP		2011	31.38-0.24								1.0
HWQ	BN	216	181	ES		2011	55.80 0.81								1.0
FKH	SZ	223	170	EP		2011	33.14 0.68								1.0
BHL	BZ	259	187	EP		2011	36.76-0.22								1.0
ZAHL	SZ	263	182	EP		2011	37.57 0.14								1.0
DQRL	SZ	282	188	EP		2011	39.64-0.17								1.0

QRWL	SZ	298	186	EP		2011	41.71-0.11										1.0
SHBL	SZ	320	184	EP		2011	44.60	0.05									1.0

April 16 2019 Hour: 12:46 55.0 Lat: 34.04N Lon: 35.74E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

KESROUAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	209	EP		1246	57.72-0.06		44						1.0
BHL	BN	17	209	ES		1246	59.83	0.01							1.0
ZAHL	SZ	24	147	EP		1246	58.89-0.00								1.0
ZAHL	SN	24	147	ES		1247	1.74-0.02								1.0
HWQ	BZ	33	35	EP		1247	0.33	0.06							1.0
HWQ	BN	33	35	ES		1247	4.13-0.01								1.0
DQRL	SZ	40	203	EP		1247	1.45-0.07								1.0
QRWL	SZ	55	186	EP		1247	3.95	0.09							1.0
RCY	SZ	61	172	EP		1247	4.86	0.04							1.0
FKH	SZ	66	69	EP		1247	5.57-0.04								1.0
BEIL	SZ	69	36	EP		1247	6.15-0.01								1.0

April 17 2019 Hour: 8:29 40.8 Lat: 33.86N Lon: 35.84E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

Earthquake was felt

ZAHLE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	5	97	EP		829	41.47-0.07								1.0
BHL	BZ	18	285	EP		829	43.56-0.05								1.0
DQRL	SZ	30	235	EP		829	45.73	0.07							1.0
DQRL	SN	30	235	ES		829	49.33	0.05							1.0
QRWL	SZ	38	202	EP		829	46.76-0.12								1.0
RCY	SZ	41	180	EP		829	47.22-0.12		50						1.0
RCY	SN	41	180	ES		829	52.37	0.17							1.0
HWQ	BZ	47	12	EP		829	48.28-0.10								1.0
SHBL	SZ	58	189	EP		829	50.04-0.06								1.0
FKH	SZ	68	51	EP		829	51.77	0.06							1.0
BEIL	SZ	82	23	EP		829	54.15	0.17							1.0

April 17 2019 Hour: 15: 6 26.6 Lat: 33.48N Lon: 35.71E Depth: 13 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	7	344	EP		15 6	29.07-0.16		39						1.0
QRWL	SN	7	344	ES		15 6	31.10-0.06								1.0
RCY	SZ	12	83	EP		15 6	29.61-0.11								1.0
RCY	SN	12	83	ES		15 6	32.22	0.20							1.0
SHBL	SZ	15	166	EP		15 6	30.07	0.01							1.0
DQRL	SZ	28	333	EP		15 6	31.85	0.20							1.0
ZAHL	SZ	45	22	EP		15 6	34.01-0.21								1.0
BHL	BZ	47	354	EP		15 6	34.71	0.17							1.0
BEIL	SZ	126	21	EP		15 6	46.03-0.03								1.0

April 18 2019 Hour: 5: 1 6.5

EMSC OT=05:01:06.5 24.06N 121.54E 19Km M=6.1 TAIWAN

Agency: Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		512	36.89								
BHL	BZ			EP		512	39.96								
FKH	SZ			EP		512	37.23								
HWQ	BZ			EP		512	37.57								
QRWL	SZ			EP		512	41.33								
RCY	SZ			EP		512	40.81								
SHBL	SZ			EP		512	41.92								

April 19 2019 Hour: 14:026.4 Lat: 33.47N Lon: 35.69E Depth: 11 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.1 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	9	355	EP		14	0	28.54-0.26	31						1.0
QRWL	SN	9	355	ES		14	0	30.67	0.09						1.0
RCY	SZ	14	77	EP		14	0	29.42	0.00						1.0
RCY	SN	14	77	ES		14	0	31.65	0.00						1.0
SHBL	SZ	14	159	EP		14	0	29.50	0.05						1.0
DQRL	SZ	29	337	EP		14	0	31.55	0.14						1.0
ZAHL	SZ	47	23	EP		14	0	34.28	0.05						1.0
BHL	BZ	49	356	EP		14	0	34.39-0.07							1.0

April 20 2019 Hour: 13:15 10.0 Lat: 34.26N Lon: 36.46E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	5	245	EP		1315	10.52-0.28		44						1.0
BEIL	SZ	40	321	EP		1315	16.48	0.06							1.0
BEIL	SN	40	321	ES		1315	21.15-0.02								1.0
HWQ	BZ	47	272	EP		1315	17.60-0.00								1.0
HWQ	BN	47	272	ES		1315	23.33	0.10							1.0
ZAHL	SZ	69	230	EP		1315	21.18-0.01								1.0
BHL	BZ	84	242	EP		1315	23.45-0.13								1.0
DQRL	SZ	103	233	EP		1315	26.70	0.13							1.0
RCY	SZ	103	214	EP		1315	26.64	0.08							1.0
SHBL	SZ	121	213	EP		1315	29.60	0.07							1.0

April 20 2019 Hour: 13:18 54.6 Lat: 33.47N Lon: 35.69E Depth: 0 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.1 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	8	352	EP		1318	55.90-0.03		25						1.0
QRWL	SN	8	352	ES		1318	56.93-0.01								1.0
RCY	SZ	13	79	EP		1318	56.77	0.02							1.0
RCY	SN	13	79	ES		1318	58.35-0.01								1.0
SHBL	SZ	15	162	EP		1318	56.81-0.14								1.0
SHBL	SN	15	162	ES		1318	58.79	0.09							1.0
DQRL	SZ	28	336	EP		1318	59.18	0.04							1.0
BHL	BZ	48	356	EP		1319	2.34	0.03							1.0

April 22 2019 Hour: 17:25 44.0 Lat: 33.48N Lon: 35.63E Depth: 0 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.2 secs

Earthquake was felt

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	9	29	EP		1725	45.48-0.01		74						1.0
QRWL	SN	9	29	ES		1725	46.59	0.02							1.0
SHBL	SZ	18	145	EP		1725	46.90	0.03							1.0
RCY	SZ	19	83	EP		1725	47.01-0.06								1.0
RCY	SN	19	83	ES		1725	49.30-0.01								1.0
DQRL	SZ	26	347	EP		1725	48.26	0.01							1.0
BEYL	SZ	46	343	EP		1725	51.92	0.51							0.2
BHL	BZ	47	2	EP		1725	51.54-0.15								1.0
ZAHL	SZ	48	29	EP		1725	51.84	0.02							1.0
FKH	SZ	111	40	EP		1726	2.06	0.06							1.0
BEIL	SZ	129	23	EP		1726	5.71	0.94							0.2

April 22 2019 Hour: 21:41 32.5 Lat: 36.63N Lon: 38.00E Depth: 0 Agency: REL Regional
Magnitudes: 3.6MC REL Rms: 0.2 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	284	216	EP		2142	14.12	0.17	97						1.0
BEIL	SN	284	216	ES		2142	44.41	-0.17							1.0
FKH	SZ	302	209	EP		2142	15.93	-0.22							1.0
HWQ	BZ	321	216	EP		2142	18.25	-0.29							1.0
HWQ	BN	321	216	ES		2142	52.75	0.17							1.0
ZAHL	SZ	363	213	EP		2142	24.05	0.27							1.0
BHL	BZ	370	216	EP		2142	24.70	0.03							1.0
DQRL	SZ	393	215	EP		2142	27.50	0.06							1.0
RCY	SZ	400	210	EP		2142	28.52	0.18							1.0
QRWL	SZ	402	212	EP		2142	28.23	-0.32							1.0
SHBL	SZ	418	210	EP		2142	30.70	0.11							1.0

April 23 2019 Hour: 5:37 53.5

Agency: Distant

EMSC OT=05:37:53.5 11.80N 125.17E 66Km M=6.4 SAMAR, PHILIPPINES

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		550	12.60								
FKH	SZ			EP		550	9.40								
HWQ	BZ			EP		550	10.89								
DQRL	SZ			EP		550	13.46								
BEIL	SZ			EP		550	9.63								
QRWL	SZ			EP		550	13.17								
RCY	SZ			EP		550	12.26								
SHBL	SZ			EP		550	12.94								

April 23 2019 Hour: 14:20 14.4

Agency: Distant

EMSC OT=14:20:14.4 24.89S 178.77W 354Km M=5.9 SOUTH OF FIJI ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ			EP		1439	16.67								
RCY	SZ			EP		1439	16.35								
HWQ	BZ			EP		1439	15.01								
BHL	BZ			EP		1439	15.89								
BEIL	SZ			EP		1439	15.15								
QRWL	SZ			EP		1439	16.56								
FKH	SZ			EP		1439	15.50								
DQRL	SZ			EP		1439	16.74								

April 23 2019 Hour: 17:17 26.4

Lat: 34.03N

Lon: 35.98E

Depth: 9

Agency: REL

Local

Magnitudes: 3.0MC REL

Rms: 0.3 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	20	204	EP		1717	29.98	-0.13							1.0
ZAHL	SN	20	204	ES		1717	32.72	-0.14							1.0
HWQ	BZ	28	354	EP		1717	30.70	-0.57	59						1.0
HWQ	BN	28	354	ES		1717	35.43	0.55							1.0
BHL	BZ	33	246	EP		1717	31.60	-0.34							1.0
BHL	BN	33	246	ES		1717	36.14	0.11							1.0
FKH	SZ	47	58	EP		1717	34.14	-0.02							1.0
DQRL	SZ	52	227	EP		1717	34.85	-0.05							1.0
QRWL	SZ	60	207	EP		1717	36.36	0.21							1.0
RCY	SZ	60	193	EP		1717	36.45	0.21							1.0
BEIL	SZ	61	18	EP		1717	36.18	-0.11							1.0
SHBL	SZ	78	196	EP		1717	39.38	0.27							1.0

April 23 2019 Hour: 20:15 50.5

Agency: Distant

EMSC OT=20:15:50.5 28.48N 94.58E 13Km M=5.9 ARUNACHAL PRADESH, INDIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2024	41.96								
BHL	BZ			EP		2024	45.82								
DQRL	SZ			EP		2024	47.33								
FKH	SZ			EP		2024	41.30								
HWQ	BZ			EP		2024	43.94								
QRWL	SZ			EP		2024	46.67								
RCY	SZ			EP		2024	45.73								
SHBL	SZ			EP		2024	46.67								
ZAHL	SZ			EP		2024	45.26								

April 24 2019 Hour: 23:18 8.3

Agency: Distant

EMSC OT=23:18:08.3 20.77S 177.87W 461Km M=4.9 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		2336	59.10								
BHL	BZ			EP		2336	59.51								
DQRL	SZ			EP		2337	1.15								
FKH	SZ			EP		2336	58.86								
HWQ	BZ			EP		2336	59.22								
QRWL	SZ			EP		2337	1.03								
RCY	SZ			EP		2337	0.50								
SHBL	SZ			EP		2337	1.15								

April 25 2019 Hour: 15:46 48.3

Lat: 33.78N

Lon: 35.74E

Depth: 12

Agency: REL

Local

Magnitudes: 2.7MC REL

Rms: 0.2 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	16	58	EP		1546	51.41	-0.21							1.0
BHL	BZ	16	329	EP		1546	51.79	0.18	39						1.0
BHL	BN	16	329	ES		1546	54.13	0.03							1.0
DQRL	SZ	18	242	EP		1546	51.92	0.02							1.0
QRWL	SZ	27	192	EP		1546	52.44	-0.63							1.0
RCY	SZ	33	165	EP		1546	54.34	0.33							1.0
RCY	SN	33	165	ES		1546	58.33	0.06							1.0
SHBL	SZ	48	180	EP		1546	56.56	0.22							1.0
HWQ	BZ	58	19	EP		1546	57.91	0.03							1.0
FKH	SZ	80	50	EP		1547	1.22	0.07							1.0
BEIL	SZ	94	26	EP		1547	2.96	-0.11							1.0

April 25 2019 Hour: 18:58 52.6

Lat: 33.89N

Lon: 37.12E

Depth: 6

Agency: REL

Regional

Magnitudes: 3.1MC REL

Rms: 0.1 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	76	301	EP		1859	4.96	0.07	64						1.0
FKH	SN	76	301	ES		1859	13.95	-0.06							1.0
BEIL	SZ	112	310	EP		1859	10.36	-0.14							1.0
BEIL	SN	112	310	ES		1859	23.78	0.01							1.0
HWQ	BZ	116	292	EP		1859	11.25	0.12							1.0
RCY	SZ	126	250	EP		1859	12.73	0.07							1.0
BHL	BZ	135	271	EP		1859	13.91	-0.01							1.0
SHBL	SZ	141	245	EP		1859	14.56	-0.21							1.0
DQRL	SZ	145	262	EP		1859	15.44	0.14							1.0

April 26 2019 Hour: 9:16 21.4

Agency: REL Regional

EMSC OT=09:16:21.4 35.16N 27.89E 45Km M=4.4 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ			EP		917	54.59								
HWQ	BZ			EP		917	55.86								
SHBL	SZ			EP		917	56.46								
RCY	SZ			EP		917	56.53								
BEIL	SZ			EP		917	56.98								

FKH SZ EP 918 0.34

April 26 2019 Hour: 12:12 49.5 Lat: 33.83N Lon: 36.13E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

LEBANON - SYRIA BORDER REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	23	279	EP		1212	53.06	-0.11							1.0
ZAHL	SN	23	279	ES		1212	55.77	-0.14							1.0
RCY	SZ	46	217	EP		1212	56.82	0.01	46						1.0
RCY	SN	46	217	ES		1213	2.19	-0.05							1.0
QRWL	SZ	52	234	EP		1212	57.74	-0.06							1.0
HWQ	BZ	53	341	EP		1212	58.22	0.20							1.0
FKH	SZ	53	29	EP		1212	57.97	-0.08							1.0
DQRL	SZ	54	256	EP		1212	58.28	0.18							1.0
DQRL	SN	54	256	ES		1213	4.57	0.08							1.0
SHBL	SZ	64	214	EP		1212	59.78	0.02							1.0
BEIL	SZ	80	4	EP		1213	2.25	-0.06							1.0

April 26 2019 Hour: 17:14 51.3 Lat: 35.11N Lon: 36.91E Depth: 0 Agency: REL Regional
Magnitudes: 3.1MC REL Rms: 0.7 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	91	227	EP		1715	5.22	-0.78	60						1.0
BEIL	SN	91	227	ES		1715	16.96	0.05							1.0
FKH	SZ	106	206	EP		1715	7.36	-1.01							1.0
HWQ	BZ	128	224	EP		1715	11.67	-0.17							1.0
HWQ	BN	128	224	ES		1715	27.48	0.42							1.0
ZAHL	SZ	168	215	EP		1715	17.66	-0.17							1.0
DQRL	SZ	198	219	EP		1715	22.18	0.15							1.0
SHBL	SZ	223	209	EP		1715	26.60	1.50							1.0

April 26 2019 Hour: 19:10 13.3 Agency: Distant
EMSC OT=19:10:13.3 24.21S 176.36W 30Km M=5.1 SOUTH OF FIJI ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1930	1.48								
BHL	BZ			EP		1930	2.40								
DQRL	SZ			EP		1930	3.24								
FKH	SZ			EP		1930	1.48								
HWQ	BZ			EP		1930	1.63								
QRWL	SZ			EP		1930	2.94								
RCY	SZ			EP		1930	2.63								
SHBL	SZ			EP		1930	2.94								

April 26 2019 Hour: 21:53 41.3 Agency: REL Regional
EMSC OT=21:53:41.3 35.15N 27.88E 10Km M=3.8 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		2155	17.39								
QRWL	SZ			EP		2155	17.94								
SHBL	SZ			EP		2155	18.94								
HWQ	BZ			EP		2155	20.03								
ZAHL	SZ			EP		2155	19.78								
RCY	SZ			EP		2155	19.88								
BEIL	SZ			EP		2155	19.63								

April 27 2019 Hour: 5:9 2.0 Lat: 34.18N Lon: 36.18E Depth: 6 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.1 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	22	71	EP		5 9	5.70	-0.06	64						1.0
FKH	SN	22	71	ES		5 9	8.56	0.02							1.0
HWQ	BZ	25	297	EP		5 9	5.90	-0.24							1.0
HWQ	BN	25	297	ES		5 9	9.29	0.11							1.0
BEIL	SZ	40	0	EP		5 9	8.69	0.10							1.0
ZAHL	SZ	45	218	EP		5 9	9.39	0.01							1.0

BHL	BZ	58	238	EP	5	9	11.37-0.02									1.0
RCY	SZ	82	203	EP	5	9	15.43	0.08								1.0
SHBL	SZ	101	204	EP	5	9	18.32	0.00								1.0

April 27 2019 Hour: 5:20 50.8 Lat: 34.17N Lon: 36.18E Depth: 4 Agency: REL Local
Magnitudes: 3.6MC REL Rms: 0.1 secs

Earthquake was felt

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	22	69	EP		520	54.47-0.06		135						1.0
HWQ	BZ	25	298	EP		520	54.81-0.11								1.0
HWQ	BN	25	298	ES		520	58.03	0.09							1.0
BEIL	SZ	41	0	EP		520	57.58	0.12							1.0
BEIL	SN	41	0	ES		521	2.32-0.03								1.0
ZAHL	SZ	45	218	EP		520	58.18	0.09							1.0
BHL	BZ	57	239	EP		520	59.89-0.24								1.0
DQRL	SZ	77	228	EP		521	3.30	0.02							1.0
RCY	SZ	82	203	EP		521	4.05-0.01								1.0
QRWL	SZ	84	214	EP		521	4.36	0.01							1.0
SHBL	SZ	100	204	EP		521	7.16	0.12							1.0

April 27 2019 Hour: 10:30 33.5 Lat: 34.53N Lon: 36.34E Depth: 10 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

AKKAR REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	15	276	EP		1030	36.47	0.05	38						1.0
BEIL	SN	15	276	ES		1030	38.52-0.07								1.0
FKH	SZ	32	169	EP		1030	38.97-0.03								1.0
FKH	SN	32	169	ES		1030	43.06-0.01								1.0
HWQ	BZ	46	233	EP		1030	41.25	0.13							1.0
BHL	BZ	94	223	EP		1030	48.39-0.16								1.0
DQRL	SZ	116	218	EP		1030	51.88	0.12							1.0
QRWL	SZ	125	209	EP		1030	53.04-0.03								1.0

April 29 2019 Hour: 4:43 14.7 Agency: REL Regional
EMSC OT=04:43:14.7 35.22N 27.79E 10Km M=5.0 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		444	51.13								
BHL	BZ			EP		444	47.42								
QRWL	SZ			EP		444	53.40								
HWQ	BZ			EP		444	53.70								
ZAHL	SZ			EP		444	54.16								
SHBL	SZ			EP		444	54.76								
RCY	SZ			EP		444	55.29								
BEIL	SZ			EP		444	55.52								
FKH	SZ			EP		444	59.53								

April 29 2019 Hour: 7:23 50.3 Lat: 34.43N Lon: 35.92E Depth: 0 Agency: REL Local
Magnitudes: 3.2MC REL Rms: 0.2 secs

Earthquake was felt

ZGHARTA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	17	171	EP		723	52.67-0.40		86						1.0
BEIL	SZ	27	64	EP		723	54.69	0.02							1.0
BEIL	SN	27	64	ES		723	57.91-0.02								1.0
FKH	SZ	50	115	EP		723	58.31	0.01							1.0
FKH	SN	50	115	ES		724	4.27	0.02							1.0
ZAHL	SZ	64	183	EP		724	0.68	0.12							1.0
DQRL	SZ	87	202	EP		724	4.11-0.15								1.0
QRWL	SZ	101	193	EP		724	6.52	0.04							1.0
RCY	SZ	104	184	EP		724	7.41	0.35							1.0
RCY	SE	104	184	ES		724	19.49	0.01							1.0
SHBL	SZ	121	188	EP		724	9.82-0.01								1.0

April 29 2019 Hour: 7:41 30.3 Lat: 34.43N Lon: 35.96E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.1 secs

ZGHARTA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	17	183	EP		741	32.77	-0.29	34						1.0
HWQ	BN	17	183	ES		741	35.20	0.13							1.0
BEIL	SZ	24	59	EP		741	34.32	0.05							1.0
BEIL	SN	24	59	ES		741	37.23	0.04							1.0
FKH	SZ	47	116	EP		741	37.75	-0.09							1.0
RCY	SZ	104	186	EP		741	47.22	0.10							1.0
SHBL	SZ	122	189	EP		741	50.00	0.07							1.0

April 29 2019 Hour: 12: 7 26.3 Lat: 34.18N Lon: 36.19E Depth: 4 Agency: REL Local
Magnitudes: 3.7MC REL Rms: 0.1 secs

Earthquake was felt

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	22	70	EP		12 7	29.95	-0.05	151						1.0
HWQ	BZ	25	297	EP		12 7	30.28	-0.17							1.0
HWQ	BN	25	297	ES		12 7	33.57	0.07							1.0
BEIL	SZ	41	360	EP		12 7	33.07	0.14							1.0
ZAHL	SZ	45	218	EP		12 7	33.52	-0.12							1.0
ZAHL	SN	45	218	ES		12 7	39.14	0.09							1.0
BHL	BZ	58	239	EP		12 7	35.64	-0.04							1.0
DQRL	SZ	77	228	EP		12 7	38.66	-0.16							1.0
RCY	SZ	82	203	EP		12 7	39.66	0.06							1.0
QRWL	SZ	84	214	EP		12 7	40.06	0.17							1.0
SHBL	SZ	101	204	EP		12 7	42.58	0.00							1.0

April 29 2019 Hour: 13:12 44.7 Lat: 33.85N Lon: 36.18E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	27	273	EP		1312	48.99	-0.11	54						1.0
RCY	SZ	50	219	EP		1312	52.84	0.04							1.0
RCY	SN	50	219	ES		1312	58.65	-0.10							1.0
HWQ	BZ	53	336	EP		1312	53.22	-0.00							1.0
QRWL	SZ	56	234	EP		1312	53.84	-0.01							1.0
DQRL	SZ	58	255	EP		1312	54.15	0.02							1.0
DQRL	SN	58	255	ES		1313	1.16	0.08							1.0
SHBL	SZ	68	216	EP		1312	55.81	0.07							1.0

April 29 2019 Hour: 14:19 52.6 Agency: Distant
EMSC OT=14:19:52.6 10.86N 57.28E 10Km M=6.2 CARLSBERG RIDGE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1426	5.92								
DQRL	SZ			EP		1426	4.86								
FKH	SZ			EP		1426	4.59								
HWQ	BZ			EP		1426	6.46								
QRWL	SZ			EP		1426	2.47								
RCY	SZ			EP		1426	2.20								
SHBL	SZ			EP		1426	2.20								

April 29 2019 Hour: 18:58 23.2 Lat: 33.46N Lon: 35.69E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

HASBAYA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	10	356	EP		1858	24.65	-0.13	48						1.0
QRWL	SN	10	356	ES		1858	25.96	0.02							1.0
SHBL	SZ	13	158	EP		1858	25.41	0.02							1.0
RCY	SZ	14	74	EP		1858	25.45	-0.06							1.0
DQRL	SZ	29	338	EP		1858	27.98	0.03							1.0
DQRL	SN	29	338	ES		1858	31.46	0.01							1.0

ZAHL	SZ	48	22	EP	1858	30.98	0.07									1.0
HWQ	BZ	94	15	EP	1858	38.15	-0.18									1.0
BEIL	SZ	128	21	EP	1858	44.13	0.22									1.0

April 30 2019 Hour: 9:53 10.4 Lat: 34.21N Lon: 36.48E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	7	305	EP		953	11.47	-0.10	48						1.0
BEIL	SZ	46	324	EP		953	17.86	0.11							1.0
BEIL	SN	46	324	ES		953	23.27	0.04							1.0
HWQ	BZ	50	279	EP		953	18.10	-0.24							1.0
HWQ	BN	50	279	ES		953	24.35	0.11							1.0
RCY	SZ	99	217	EP		953	26.24	-0.01							1.0
DQRL	SZ	101	237	EP		953	26.50	-0.07							1.0
QRWL	SZ	104	225	EP		953	27.06	-0.01							1.0
SHBL	SZ	117	216	EP		953	29.38	0.17							1.0

April 30 2019 Hour: 22: 1 44.6 Lat: 34.17N Lon: 36.18E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.2 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	23	69	EP		22	1	48.24	-0.08	28					1.0
HWQ	BZ	25	299	EP		22	1	48.45	-0.15						1.0
HWQ	BN	25	299	ES		22	1	51.53	-0.01						1.0
BEIL	SZ	41	1	EP		22	1	51.40	0.11						1.0
BEIL	SN	41	1	ES		22	1	56.25	0.03						1.0
BHL	BZ	57	239	EP		22	1	54.10	0.32						0.2
DQRL	SZ	76	228	EP		22	1	57.57	0.64						0.2
QRWL	SZ	83	214	EP		22	1	58.50	0.50						0.2

Epicentral Map of Lebanon

APRIL 2019

Magnitudes

- Ml = 2
- Ml = 3
- Ml = 4
- Ml = 5
- ★ Felt

