

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

September

2019

Prepared by
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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 V_p/V_s 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
Z AHL	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.

September 1 2019 Hour: 15:54 21.1

Agency: REL Distant

EMSC OT=15:54:21.1 20.43S 178.53W 608Km M=6.7 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1612	52.52								
BEIL	SZ			EP		1612	52.88								
FKH	SZ			EP		1612	52.91								
ZAHL	SZ			EP		1612	53.57								
BHL	BZ			EP		1612	52.80								
DQRL	SZ			EP		1612	54.42								
RCY	SZ			EP		1612	53.96								
QRWL	SZ			EP		1612	54.16								
SHBL	SZ			EP		1612	54.29								

September 1 2019 Hour: 23:34 41.9 Lat: 33.78N Lon: 35.80E Depth: 7 Agency: REL Local
Magnitudes: 2.5MC 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	12	42	EP		2334	44.23	-0.09							1.0
ZAHL	SN	12	42	ES		2334	46.15	0.03							1.0
BHL	BZ	19	317	EP		2334	45.17	-0.13	30						1.0
BHL	BN	19	317	ES		2334	47.91	0.07							1.0
DQRL	SZ	23	249	EP		2334	45.77	0.00							1.0
QRWL	SZ	28	203	EP		2334	46.55	0.01							1.0
RCY	SZ	31	173	EP		2334	47.18	0.04							1.0
SHBL	SZ	48	186	EP		2334	49.73	-0.00							1.0
HWQ	BZ	57	14	EP		2334	51.29	0.07							1.0

September 2 2019 Hour: 7: 7 20.3 Lat: 33.84N Lon: 36.09E Depth: 8 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	19	277	EP		7 7	23.69	-0.01							1.0
BHL	BZ	41	281	EP		7 7	26.97	-0.07							1.0
RCY	SZ	44	212	EP		7 7	27.54	-0.08	40						1.0
RCY	SN	44	212	ES		7 7	33.06	0.01							1.0
QRWL	SZ	50	230	EP		7 7	28.48	0.08							1.0
DQRL	SZ	50	253	EP		7 7	28.45	-0.06							1.0
DQRL	SN	50	253	ES		7 7	34.65	0.05							1.0
HWQ	BZ	51	345	EP		7 7	28.62	0.03							1.0
FKH	SZ	54	33	EP		7 7	29.14	-0.00							1.0
SHBL	SZ	63	211	EP		7 7	30.57	0.02							1.0
BEIL	SZ	79	6	EP		7 7	33.07	0.02							1.0

September 2 2019 Hour: 22:45 48.5

Agency: REL Distant

EMSC OT=22:45:48.5 23.78N 45.17W 10Km M=5.9 NORTHERN MID-ATLANTIC RIDGE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2256	58.27								
HWQ	BZ			EP		2256	59.01								

September 3 2019 Hour: 15:20 54.1 Lat: 33.57N Lon: 36.40E Depth: 9 Agency: REL Regional
Magnitudes: 2.8MC REL Rms: 0.0 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	53	261	EP		1521	2.74	-0.06	46						1.0
RCY	SN	53	261	ES		1521	9.27	0.01							1.0
ZAHL	SZ	57	304	EP		1521	3.56	0.07							1.0
SHBL	SZ	66	248	EP		1521	4.81	-0.01							1.0
QRWL	SZ	67	268	EP		1521	5.05	0.09							1.0
FKH	SZ	75	1	EP		1521	6.25	-0.01							1.0
BHL	BZ	78	298	EP		1521	6.80	-0.03							1.0
BHL	BN	78	298	ES		1521	16.25	-0.02							1.0
DQRL	SZ	78	281	EP		1521	6.80	-0.04							1.0
HWQ	BZ	89	332	EP		1521	8.49	0.00							1.0

September 4 2019 Hour: 1:132.6

Agency: REL Regional

EMSC OT=01:01:32.6 35.09N 27.93E 10Km M=4.3 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ			EP		1 3	10.70								
BHL	BZ			EP		1 3	5.53								
DQRL	SZ			EP		1 3	5.72								
HWQ	BZ			EP		1 3	9.12								
QRWL	SZ			EP		1 3	8.32								
RCY	SZ			EP		1 3	10.04								
FKH	SZ			EP		1 3	5.43								
SHBL	SZ			EP		1 3	9.42								
BEIL	SZ			EP		1 3	11.51								

September 4 2019 Hour: 19:38 14.6 Lat: 33.70N Lon: 34.91E Depth: 11 Agency: REL Local
Magnitudes: 3.3MC REL Rms: 0.1 secs

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	61	89	EP		1938	24.73	0.07	89						1.0
DQRL	SN	61	89	ES		1938	32.07	-0.05							1.0
BHL	BZ	73	72	EP		1938	26.46	0.04							1.0
BHL	BN	73	72	ES		1938	35.11	-0.07							1.0
QRWL	SZ	74	103	EP		1938	26.63	0.05							1.0
QRWL	SN	74	103	ES		1938	35.55	0.09							1.0
SHBL	SZ	87	117	EP		1938	28.39	-0.16							1.0
RCY	SZ	89	105	EP		1938	28.84	-0.01							1.0
ZAHL	SZ	92	79	EP		1938	29.35	0.05							1.0
HWQ	BZ	115	56	EP		1938	32.71	0.00							1.0
BEIL	SZ	150	51	EP		1938	37.78	-0.02							1.0
FKH	SZ	151	66	EP		1938	38.30	0.29							0.2

September 5 2019 Hour: 17:19 0.0 Lat: 34.16N Lon: 36.26E Depth: 14 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	17	57	EP		1719	3.67	0.01	36						1.0
HWQ	BZ	32	294	EP		1719	5.65	-0.03							1.0
HWQ	BN	32	294	ES		1719	9.87	-0.00							1.0
BEIL	SZ	43	351	EP		1719	7.24	0.01							1.0
BEIL	SN	43	351	ES		1719	12.57	-0.00							1.0
ZAHL	SZ	49	226	EP		1719	8.20	0.04							1.0
BHL	BZ	63	243	EP		1719	10.29	0.02							1.0
QRWL	SZ	87	218	EP		1719	13.83	0.06							1.0
SHBL	SZ	102	208	EP		1719	15.98	-0.11							1.0

September 6 2019 Hour: 0:15 10.5 Lat: 32.61N Lon: 34.39E Depth: 10 Agency: REL Regional
Magnitudes: 3.4MC REL Rms: 0.0 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	150	57	EP		015	33.89	0.02	85						1.0
SHBL	SN	150	57	ES		015	51.13	-0.02							1.0
QRWL	SZ	159	49	EP		015	35.11	0.02							1.0
DQRL	SZ	164	42	EP		015	35.77	-0.02							1.0
DQRL	SN	164	42	ES		015	54.51	0.01							1.0
RCY	SZ	167	54	EP		015	36.23	-0.03							1.0
RCY	SN	167	54	ES		015	55.33	0.01							1.0
BHL	BZ	185	39	EP		015	38.45	-0.11							1.0
ZAHL	SZ	196	45	EP		015	39.97	0.05							1.0
HWQ	BZ	235	38	EP		015	44.75	0.06							1.0

September 6 2019 Hour: 8:59 54.2 Lat: 35.78N Lon: 31.82E Depth: 0 Agency: REL Regional
 Magnitudes: 4.0MC REL Rms: 0.0 secs

EASTERN MEDITERRANEAN SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	408	120	EP		9 0	50.86	-0.10							1.0
BHL	BN	408	120	ES		9 1	32.92	-0.02							1.0
HWQ	BZ	412	113	EP		9 0	51.49	0.03	156						1.0
HWQ	BN	412	113	ES		9 1	33.87	0.05							1.0
DQRL	SZ	413	123	EP		9 0	51.62	-0.01							1.0
DQRL	SN	413	123	ES		9 1	34.07	-0.04							1.0
BEIL	SZ	421	108	EP		9 0	52.48	-0.01							1.0
QRWL	SZ	432	124	EP		9 0	53.90	0.02							1.0
RCY	SZ	447	123	EP		9 0	55.75	0.01							1.0
SHBL	SZ	450	126	EP		9 0	56.19	0.09							1.0
FKH	SZ	452	111	EP		9 0	56.33	-0.04							1.0

September 6 2019 Hour: 15:37 21.9 Lat: 33.98N Lon: 36.17E Depth: 5 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	30	242	EP		1537	26.97	0.18							1.0
FKH	SZ	36	37	EP		1537	27.86	0.03	48						1.0
FKH	SN	36	37	ES		1537	32.24	-0.00							1.0
HWQ	BZ	39	328	EP		1537	28.26	0.06							1.0
HWQ	BN	39	328	ES		1537	32.83	-0.06							1.0
BHL	BZ	49	260	EP		1537	29.75	-0.02							1.0
BEIL	SZ	62	1	EP		1537	31.81	-0.09							1.0
RCY	SZ	62	210	EP		1537	31.89	-0.08							1.0
RCY	SE	62	210	ES		1537	39.30	-0.14							1.0
QRWL	SZ	66	223	EP		1537	32.62	0.03							1.0
SHBL	SZ	81	210	EP		1537	35.03	0.09							1.0

September 6 2019 Hour: 16:28 32.3 Lat: 34.53N Lon: 36.35E Depth: 1 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	16	275	EP		1628	34.93	0.06	41						1.0
BEIL	SN	16	275	ES		1628	36.82	0.05							1.0
FKH	SZ	32	171	EP		1628	37.45	-0.05							1.0
FKH	SN	32	171	ES		1628	41.44	0.11							1.0
HWQ	BZ	47	233	EP		1628	39.81	-0.07							1.0
BHL	BZ	95	223	EP		1628	47.57	-0.04							1.0
DQRL	SZ	117	219	EP		1628	51.02	-0.10							1.0
RCY	SZ	124	203	EP		1628	52.32	-0.04							1.0
QRWL	SZ	125	210	EP		1628	52.58	0.04							1.0
SHBL	SZ	143	203	EP		1628	55.16	0.04							1.0

September 6 2019 Hour: 17:25 33.6 Agency: REL Distant
EMSC OT=17:25:33.6 31.18S 177.69W 2Km M=5.1 KERMADEC ISLANDS, NEW ZEALAND

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1745	29.78								
BEIL	SZ			EP		1745	29.88								
SHBL	SZ			EP		1745	30.97								
BHL	BZ			EP		1745	30.78								
QRWL	SZ			EP		1745	30.93								
DQRL	SZ			EP		1745	31.45								

September 9 2019 Hour: 12:13 30.2 Lat: 34.04N Lon: 35.76E Depth: 0 Agency: REL Local
 Magnitudes: 2.5MC REL Rms: 0.1 secs

KESROUAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	214	EP		1213	32.91	-0.08	28						1.0
BHL	BN	18	214	ES		1213	35.07	-0.01							1.0
ZAHL	SZ	23	149	EP		1213	33.84	-0.02							1.0
HWQ	BZ	32	33	EP		1213	35.38	0.07							1.0
HWQ	BN	32	33	ES		1213	39.08	-0.05							1.0
DQRL	SZ	41	206	EP		1213	36.76	0.06							1.0
QRWL	SZ	55	187	EP		1213	39.03	0.06							1.0
RCY	SZ	60	173	EP		1213	39.85	-0.03							1.0

September 9 2019 Hour: 12:44 2.4 Lat: 33.92N Lon: 36.15E Depth: 16 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
ZAHL	SZ	25	255	EP		1244	7.29	-0.03							1.0
FKH	SZ	44	33	EP		1244	9.81	-0.11	43						1.0
FKH	SN	44	33	ES		1244	15.56	0.09							1.0
HWQ	BZ	44	335	EP		1244	9.87	-0.12							1.0
HWQ	BN	44	335	ES		1244	15.62	0.03							1.0
BHL	BZ	46	269	EP		1244	10.25	0.07							1.0
RCY	SZ	55	212	EP		1244	11.56	0.04							1.0
QRWL	SZ	59	227	EP		1244	12.16	-0.01							1.0
BEIL	SZ	70	3	EP		1244	13.68	0.04							1.0

September 10 2019 Hour: 20: 0 43.5 Lat: 33.22N Lon: 35.62E Depth: 15 Agency: REL Regional
 Magnitudes: 2.6MC REL Rms: 0.1 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	19	38	EP		20 0	47.62	0.07	32						1.0
SHBL	SN	19	38	ES		20 0	50.51	-0.03							1.0
RCY	SZ	37	32	EP		20 0	50.01	0.01							1.0
QRWL	SZ	37	9	EP		20 0	49.86	-0.14							1.0
QRWL	SN	37	9	ES		20 0	54.83	0.02							1.0
DQRL	SZ	55	355	EP		20 0	52.60	0.07							1.0

September 10 2019 Hour: 20: 6 29.5 Lat: 33.26N Lon: 35.55E Depth: 8 Agency: REL Local
 Magnitudes: 2.4MC REL Rms: 0.1 secs

LEBANON - DEAD SEA BORDER REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	20	60	EP		20 6	33.19	0.02	27						1.0
SHBL	SN	20	60	ES		20 6	35.85	-0.01							1.0
QRWL	SZ	35	20	EP		20 6	35.37	0.10							1.0
RCY	SZ	37	44	EP		20 6	35.72	-0.03							1.0
RCY	SN	37	44	ES		20 6	40.35	-0.01							1.0
DQRL	SZ	50	2	EP		20 6	37.64	-0.06							1.0

September 10 2019 Hour: 23:32 25.2 Agency: REL Distant
EMSC OT=23:32:25.2 4.08N 126.74E 40Km M=5.6 KEPULAUAN TALAUD, INDONESIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		2345	11.70								
BEIL	SZ			EP		2345	11.95								
HWQ	BZ			EP		2345	13.11								
ZAHL	SZ			EP		2345	13.85								
RCY	SZ			EP		2345	14.32								
BHL	BZ			EP		2345	14.38								
SHBL	SZ			EP		2345	14.51								
QRWL	SZ			EP		2345	14.38								
DQRL	SZ			EP		2345	14.76								

September 11 2019 Hour: 11:32 29.7 Lat: 34.23N Lon: 36.42E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	3	327	EP		1132	30.15	-0.03	32						1.0
BEIL	SZ	41	328	EP		1132	36.43	0.01							1.0
BEIL	SN	41	328	ES		1132	41.39	0.02							1.0
HWQ	BZ	45	278	EP		1132	36.88	-0.03							1.0
HWQ	BN	45	278	ES		1132	42.24	0.01							1.0
BHL	BZ	80	244	EP		1132	42.52	-0.06							1.0
RCY	SZ	98	214	EP		1132	45.47	-0.01							1.0
QRWL	SZ	102	223	EP		1132	46.26	0.09							1.0

September 12 2019 Hour: 3:55 31.5 Lat: 33.28N Lon: 35.83E Depth: 0 Agency: REL Regional
Magnitudes: 2.7MC REL Rms: 0.0 secs

GOLAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	11	315	EP		355	33.38	0.01	38						1.0
RCY	SZ	24	1	EP		355	35.44	-0.04							1.0
RCY	SN	24	1	ES		355	38.36	-0.02							1.0
QRWL	SZ	33	336	EP		355	36.81	-0.05							1.0
QRWL	SN	33	336	ES		355	40.82	0.02							1.0
DQRL	SZ	53	333	EP		355	40.14	0.00							1.0
ZAHL	SZ	65	5	EP		355	42.05	0.08							1.0

September 12 2019 Hour: 9:35 2.9 Lat: 34.03N Lon: 35.75E 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	213	EP		935	5.64	0.01	47						1.0
ZAHL	SZ	23	147	EP		935	6.57	-0.02							1.0
ZAHL	SN	23	147	ES		935	9.31	0.01							1.0
HWQ	BZ	33	33	EP		935	8.20	-0.00							1.0
HWQ	BN	33	33	ES		935	12.10	-0.01							1.0
DQRL	SZ	40	205	EP		935	9.30	-0.05							1.0
QRWL	SZ	54	187	EP		935	11.72	0.09							1.0
RCY	SZ	60	173	EP		935	12.49	-0.07							1.0
BEIL	SZ	69	35	EP		935	14.10	0.01							1.0
SHBL	SZ	76	181	EP		935	15.14	0.01							1.0

September 14 2019 Hour: 6:0 31.5 Agency: REL Regional
EMSC OT=06:00:31.5 40.73N 32.97E 5Km M=4.9 CENTRAL TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		6 2	11.27								
FKH	SZ			EP		6 2	16.84								
QRWL	SZ			EP		6 2	22.35								
RCY	SZ			EP		6 2	23.70								
SHBL	SZ			EP		6 2	25.49								

September 14 2019 Hour: 14:31 44.2 Lat: 36.07N Lon: 37.72E Depth: 9 Agency: REL Regional
Magnitudes: 3.6MC REL Rms: 0.1 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	219	220	EP		1432	16.59	0.07	108						1.0
HWQ	BZ	256	220	EP		1432	21.09	-0.03	113						1.0
ZAHL	SZ	297	215	EP		1432	26.27	0.06							1.0
BHL	BZ	305	219	EP		1432	27.14	-0.08							1.0
DQRL	SZ	327	217	EP		1432	29.94	-0.04							1.0
DQRL	SN	327	217	ES		1433	3.93	0.04							1.0
RCY	SZ	333	212	EP		1432	30.83	0.09							1.0
RCY	SN	333	212	ES		1433	5.17	-0.04							1.0
QRWL	SZ	336	214	EP		1432	30.96	-0.07							1.0

September 14 2019 Hour: 16:27 0.8 Lat: 33.04N Lon: 35.56E Depth: 12 Agency: REL Regional
 Magnitudes: 2.6MC REL Rms: 0.0 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	38	26	EP		1627	7.27	-0.02	35						1.0
SHBL	SN	38	26	ES		1627	12.11	-0.00							1.0
RCY	SZ	57	27	EP		1627	10.16	0.01							1.0
QRWL	SZ	57	11	EP		1627	10.27	0.02							1.0
QRWL	SN	57	11	ES		1627	17.27	-0.00							1.0
BHL	BZ	96	5	EP		1627	15.95	-0.08							0.2
HWQ	BZ	142	14	EP		1627	22.74	-0.01							1.0
FKH	SZ	155	30	EP		1627	24.81	0.13							0.2

September 14 2019 Hour: 16:42 6.8 Agency: REL Distant
 EMSC OT=16:42:06.8 30.42S 177.70W 10Km M=5.1 KERMADEC ISLANDS, NEW ZEALAND

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		17 1	59.93								
HWQ	BZ			EP		17 1	59.14								

September 14 2019 Hour: 22: 4 35.5 Lat: 33.22N Lon: 34.65E Depth: 12 Agency: REL Local
 Magnitudes: 3.0MC REL Rms: 0.1 secs

OFFSHORE SOUTH LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	101	58	EP		22 4	51.41	-0.04	58						1.0
DQRL	SN	101	58	ES		22 5	3.20	-0.05							1.0
SHBL	SZ	103	82	EP		22 4	51.81	0.04							1.0
QRWL	SZ	103	69	EP		22 4	51.59	-0.10							1.0
QRWL	SN	103	69	ES		22 5	3.72	0.05							1.0
RCY	SZ	115	74	EP		22 4	53.45	-0.02							1.0
BHL	BZ	120	51	EP		22 4	54.34	0.09							1.0
ZAHL	SZ	135	58	EP		22 4	56.45	0.03							1.0
HWQ	BZ	168	45	EP		22 5	1.18	-0.00							1.0

September 14 2019 Hour: 23:25 23.7 Lat: 33.69N Lon: 36.14E Depth: 13 Agency: REL Regional
 Magnitudes: 2.5MC REL Rms: 0.1 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	30	308	EP		2325	29.11	-0.05							1.0
ZAHL	SN	30	308	ES		2325	33.26	0.08							1.0
RCY	SZ	36	233	EP		2325	29.95	-0.01	28						1.0
RCY	SN	36	233	ES		2325	34.52	-0.06							1.0
QRWL	SZ	46	250	EP		2325	31.48	0.05							1.0
BHL	BZ	51	298	EP		2325	32.16	-0.10							1.0
SHBL	SZ	53	225	EP		2325	32.65	0.09							1.0
DQRL	SZ	53	272	EP		2325	32.56	0.01							1.0

September 15 2019 Hour: 12:11 53.7 Lat: 32.23N Lon: 36.25E Depth: 1 Agency: REL Regional
 Magnitudes: 3.6MC REL Rms: 0.1 secs

JORDAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	133	339	EP		1212	15.34	0.20							1.0
RCY	SZ	146	345	EP		1212	16.98	-0.06							1.0
QRWL	SZ	156	340	EP		1212	18.56	0.11							1.0
QRWL	SN	156	340	ES		1212	36.62	-0.13							1.0
DQRL	SZ	176	339	EP		1212	21.53	0.12	118						1.0
DQRL	SN	176	339	ES		1212	41.97	0.07							1.0
ZAHL	SZ	184	349	EP		1212	22.50	-0.09							1.0
BHL	BZ	194	343	EP		1212	23.82	-0.00							1.0
HWQ	BZ	229	353	EP		1212	28.11	-0.08							1.0

September 15 2019 Hour: 18:55 35.5 Lat: 35.55N Lon: 34.97E Depth: 13 Agency: REL Regional
 Magnitudes: 2.9MC REL Rms: 0.0 secs

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	157	135	EP		1855	59.55	-0.05	47						1.0
BEIL	SN	157	135	ES		1856	17.46	0.03							1.0
HWQ	BZ	166	147	EP		1856	1.01	0.05							1.0
HWQ	BN	166	147	ES		1856	19.77	-0.02							1.0
BHL	BZ	193	161	EP		1856	4.19	-0.00							1.0
ZAHL	SZ	205	156	EP		1856	5.75	-0.02							1.0
DQRL	SZ	211	165	EP		1856	6.30	-0.23							0.2
QRWL	SZ	231	163	EP		1856	8.97	0.01							1.0
RCY	SZ	241	161	EP		1856	10.24	0.02							1.0
RCY	SN	241	161	ES		1856	35.89	-0.01							1.0
SHBL	SZ	254	164	EP		1856	11.87	0.02							1.0

September 16 2019 Hour: 9:7 46.6 Lat: 34.40N Lon: 36.18E Depth: 0 Agency: REL Local
 Magnitudes: 2.7MC REL Rms: 0.1 secs

MINIEH-DINNIEH REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	16	1	EP		9 7	49.02	-0.08	42						1.0
BEIL	SN	16	1	ES		9 7	51.05	0.07							1.0
HWQ	BZ	26	238	EP		9 7	50.59	-0.09							1.0
HWQ	BN	26	238	ES		9 7	53.74	0.01							1.0
FKH	SZ	27	129	EP		9 7	50.95	-0.03							1.0
FKH	SN	27	129	ES		9 7	54.25	0.01							1.0
BHL	BZ	73	222	EP		9 7	58.48	0.08							1.0
DQRL	SZ	95	216	EP		9 8	1.95	-0.01							1.0
QRWL	SZ	105	206	EP		9 8	3.52	-0.01							1.0
RCY	SZ	105	198	EP		9 8	3.61	0.07							1.0
SHBL	SZ	123	199	EP		9 8	6.47	-0.01							1.0

September 16 2019 Hour: 10:35 31.3

Agency: REL Regional

EMSC OT=10:35:31.3 29.96N 34.36E 12Km M=3.7 EGYPT

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1036	33.39								
QRWL	SZ			EP		1036	36.28								

September 17 2019 Hour: 14:26 43.1 Lat: 33.97N Lon: 36.17E Depth: 14 Agency: REL Local
 Magnitudes: 2.8MC REL Rms: 0.0 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	29	245	EP		1426	48.48	0.04							1.0
ZAHL	SN	29	245	ES		1426	52.39	-0.00							1.0
FKH	SZ	38	36	EP		1426	49.59	-0.06	46						1.0
HWQ	BZ	40	329	EP		1426	49.96	-0.02							1.0
HWQ	BN	40	329	ES		1426	55.07	-0.00							1.0
BHL	BZ	48	261	EP		1426	51.14	-0.06							1.0
RCY	SZ	61	211	EP		1426	53.06	-0.03							1.0
BEIL	SZ	63	1	EP		1426	53.47	0.08							1.0
SHBL	SZ	80	210	EP		1426	55.86	0.04							1.0

September 17 2019 Hour: 19:29 55.5

Agency: REL Distant

EMSC OT=19:29:55.5 34.95N 46.36E 10Km M=4.6 WESTERN IRAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1932	6.72								
HWQ	BZ			EP		1932	2.08								

September 18 2019 Hour: 12: 6 48.4 Lat: 34.23N Lon: 36.43E Depth: 0 Agency: REL Local
 Magnitudes: 2.8MC REL Rms: 0.0 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	3	324	EP		12 6	48.83	-0.07	48						1.0
BEIL	SZ	42	328	EP		12 6	55.18	0.04							1.0
BEIL	SN	42	328	ES		12 7	0.11	0.02							1.0
HWQ	BZ	45	278	EP		12 6	55.66	0.01							1.0
HWQ	BN	45	278	ES		12 7	0.96	-0.02							1.0
BHL	BZ	80	244	EP		12 7	1.34	0.03							1.0
RCY	SZ	98	214	EP		12 7	4.15	-0.05							1.0
QRWL	SZ	102	223	EP		12 7	4.90	-0.00							1.0
SHBL	SZ	116	213	EP		12 7	7.22	0.05							1.0

September 18 2019 Hour: 23:19 14.0 Lat: 36.01N Lon: 35.68E Depth: 7 Agency: REL Regional
 Magnitudes: 4.0MC REL Rms: 0.1 secs

OFFSHORE SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	169	164	EP		2319	40.17	-0.11	200						1.0
BEIL	SN	169	164	ES		2319	59.75	0.06							1.0
HWQ	BZ	193	173	EP		2319	43.41	-0.02							1.0
HWQ	BN	193	173	ES		2320	5.11	-0.06							1.0
FKH	SZ	207	161	EP		2319	45.09	0.03							1.0
BHL	BZ	233	181	EP		2319	48.35	-0.02							1.0
ZAHL	SZ	239	175	EP		2319	49.12	0.00							1.0
DQRL	SZ	256	182	EP		2319	51.17	0.04							1.0
QRWL	SZ	273	180	EP		2319	53.21	-0.06							1.0
RCY	SZ	279	177	EP		2319	54.15	0.08							1.0
SHBL	SZ	295	179	EP		2319	56.13	0.05							1.0

September 19 2019 Hour: 7: 6 33.9 Agency: REL Distant
 EMSC OT=07:06:33.9 6.03S 111.85E 626Km M=6.2 JAVA, INDONESIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		717	50.46								
BHL	BZ			EP		717	51.32								

September 19 2019 Hour: 7:32 0.8 Agency: REL Distant
 EMSC OT=07:32:00.8 6.03S 111.85E 612Km M=6.0 JAVA, INDONESIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		743	19.59								
HWQ	BZ			EP		743	18.75								

September 19 2019 Hour: 7:32 58.2 Agency: REL Distant
 EMSC OT=07:32:58.2 6.03S 111.90E 633Km M=5.9 JAVA, INDONESIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		744	15.47								
HWQ	BZ			EP		744	14.36								

September 21 2019 Hour: 0:17 29.6 Lat: 33.58N Lon: 34.71E Depth: 24 Agency: REL Local
 Magnitudes: 2.8MC REL Rms: 0.1 secs

OFFSHORE SOUTH LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	91	92	EP		017	44.09	0.04							1.0
BHL	BZ	95	67	EP		017	44.72	0.05							0.2
SHBL	SZ	100	105	EP		017	45.31	-0.10	43						1.0
SHBL	SN	100	105	ES		017	57.21	0.09							1.0
RCY	SZ	105	95	EP		017	46.25	0.04							1.0
RCY	SN	105	95	ES		017	58.41	-0.09							1.0
ZAHL	SZ	113	74	EP		017	47.41	0.01							1.0
HWQ	BZ	138	56	EP		017	50.61	-0.01							1.0
BEIL	SZ	173	52	EP		017	55.15	0.26							0.2

September 21 2019 Hour: 14: 4 27.6

Agency: REL Distant

EMSC OT=14:04:27.6 41.37N 19.45E 20Km M=5.6 ALBANIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		14	7	54.51							
BHL	BZ			EP		14	7	53.50							

September 21 2019 Hour: 19:55 48.8

Agency: REL Distant

EMSC OT=19:55:48.8 40.43N 14.96E 300Km M=4.7 SOUTHERN ITALY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1959		35.72							
BHL	BZ			EP		1959		34.87							

September 22 2019 Hour: 21:25 56.5 Lat: 33.55N Lon: 35.63E Depth: 0 Agency: REL Local

Magnitudes: 2.6MC REL

Rms: 0.1 secs

CHOUF REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	5	95	EP		2125	57.27	-0.08	33						1.0
QRWL	SN	5	95	ES		2125	58.06	0.05							1.0
DQRL	SZ	18	343	EP		2125	59.25	-0.08							1.0
DQRL	SN	18	343	ES		2126	1.51	0.04							1.0
RCY	SZ	21	107	EP		2125	59.83	0.05							1.0
RCY	SN	21	107	ES		2126	2.18	-0.06							1.0
SHBL	SZ	25	154	EP		2126	0.56	0.04							1.0
ZAHL	SZ	42	35	EP		2126	3.21	0.04							1.0

September 23 2019 Hour: 7: 9 3.4

Agency: REL Regional

EMSC OT=07:09:03.4 35.98N 27.25E 10Km M=4.0 DODECANESE ISLANDS, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ			EP		710	49.66								
SHBL	SZ			EP		710	49.73								
RCY	SZ			EP		710	50.90								
HWQ	BZ			EP		710	50.67								
BEIL	SZ			EP		710	50.86								

September 24 2019 Hour: 3:37 15.9 Lat: 33.68N Lon: 35.71E Depth: 13 Agency: REL Local

Magnitudes: 2.4MC REL

Rms: 0.1 secs

CHOUF REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	13	282	EP		337	19.13	0.04							1.0
QRWL	SZ	15	190	EP		337	19.27	0.01	25						1.0
QRWL	SN	15	190	ES		337	21.73	-0.02							1.0
RCY	SZ	23	150	EP		337	20.29	-0.10							1.0
BHL	BZ	25	348	EP		337	20.56	-0.07							1.0
ZAHL	SZ	26	39	EP		337	20.67	0.01							1.0
ZAHL	SN	26	39	ES		337	24.24	0.04							1.0
SHBL	SZ	37	175	EP		337	22.41	0.09							1.0

September 24 2019 Hour: 7:18 37.6

Agency: REL Distant

EMSC OT=07:18:37.6 20.93S 178.35W 536Km M=5.3 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		737	21.48								
HWQ	BZ			EP		737	20.36								

September 24 2019 Hour: 7:48 58.0

Agency: REL Regional

EMSC OT=07:48:58.0 34.14N 26.16E 20Km M=4.9 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		750	49.15								
BHL	BZ			EP		750	50.23								
QRWL	SZ			EP		750	51.72								
SHBL	SZ			EP		750	51.78								
RCY	SZ			EP		750	52.49								
HWQ	BZ			EP		750	53.30								
BEIL	SZ			EP		750	56.19								

FKH SZ EP 750 59.09

September 24 2019 Hour: 22:55 2.9

Agency: REL Regional

EMSC OT=22:55:02.9 35.75N 28.21E 8Km M=3.4 EASTERN MEDITERRANEAN SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		2256	37.88								
ZAHL	SZ			EP		2256	38.35								
BEIL	SZ			EP		2256	39.23								
SHBL	SZ			EP		2256	40.44								
FKH	SZ			EP		2256	39.90								

September 25 2019 Hour: 1:2 4.7

Agency: REL Distant

EMSC OT=01:02:04.7 20.98S 178.69W 592Km M=4.8 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		120	41.43								
BHL	BZ			EP		120	42.47								

September 25 2019 Hour: 17:42 7.2

Agency: REL Regional

EMSC OT=17:42:07.2 36.56N 28.64E 62Km M=3.7 DODECANESE-TURKEY BORDER REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1743	34.82								
HWQ	BZ			EP		1743	37.25								
BEIL	SZ			EP		1743	37.97								
QRWL	SZ			EP		1743	38.84								
ZAHL	SZ			EP		1743	38.60								
RCY	SZ			EP		1743	40.73								
SHBL	SZ			EP		1743	41.12								

September 26 2019 Hour: 6:3 55.9 Lat: 35.67N Lon: 32.29E Depth: 80 Agency: REL Regional
Magnitudes: 3.5MC REL Rms: 0.1 secs

EASTERN MEDITERRANEAN SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	368	114	EP		6 4	44.20	0.06	79						1.0
HWQ	BN	368	114	ES		6 5	19.74	-0.07							1.0
BEIL	SZ	376	108	EP		6 4	45.11	0.01							1.0
BEIL	SN	376	108	ES		6 5	21.44	-0.03							1.0
QRWL	SZ	390	126	EP		6 4	46.69	-0.03							1.0
RCY	SZ	405	125	EP		6 4	48.52	0.01							1.0
RCY	SN	405	125	ES		6 5	27.49	0.07							1.0
FKH	SZ	408	112	EP		6 4	48.94	0.06							1.0
SHBL	SZ	408	128	EP		6 4	48.88	-0.07							1.0

September 26 2019 Hour: 10:59 25.1

Agency: REL Regional

EMSC OT=10:59:25.1 40.87N 28.19E 7Km M=5.7 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		11 1	35.23								
HWQ	BZ			EP		11 1	36.87								
BHL	BZ			EP		11 1	37.68								
FKH	SZ			EP		11 1	41.01								
DQRL	SZ			EP		11 1	41.22								
QRWL	SZ			EP		11 1	43.56								
RCY	SZ			EP		11 1	44.15								
SHBL	SZ			EP		11 1	44.64								

September 26 2019 Hour: 15:42 3.4 Lat: 34.61N Lon: 36.40E Depth: 1 Agency: REL Local
Magnitudes: 3.2MC 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	21	250	EP		1542	6.87	0.07	85						1.0
BEIL	SN	21	250	ES		1542	9.30	-0.00							1.0
FKH	SZ	40	178	EP		1542	9.81	-0.09							1.0
FKH	SN	40	178	ES		1542	14.80	0.11							1.0
HWQ	BZ	55	229	EP		1542	12.35	0.01							1.0
ZAHL	SZ	96	210	EP		1542	18.79	-0.04							1.0

ZAHL	SN	96	210	ES	1542	30.12	-0.11										1.0
BHL	BZ	104	222	EP	1542	20.20	0.05										1.0
DQRL	SZ	126	218	EP	1542	23.70	0.00										1.0
RCY	SZ	134	203	EP	1542	24.94	0.02										1.0
RCY	SN	134	203	ES	1542	40.87	0.05										1.0
QRWL	SZ	135	210	EP	1542	25.07	0.02										1.0
SHBL	SZ	152	204	EP	1542	27.53	-0.10										1.0

September 27 2019 Hour: 12: 5 2.5

Agency: REL Distant

EMSC OT=12:05:02.5 30.21S 177.98W 35Km M=6.0 KERMADEC ISLANDS, NEW ZEALAND

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1224	44.62								
BHL	BZ			EP		1224	45.16								

September 29 2019 Hour: 2: 2 52.9

Agency: REL Distant

EMSC OT=02:02:52.9 5.72N 126.58E 89Km M=6.2 MINDANAO, PHILIPPINES

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		215	31.63								
HWQ	BZ			EP		215	30.39								

September 29 2019 Hour: 9:15 54.6 Lat: 33.64N Lon: 35.56E Depth: 4 Agency: REL Local
Magnitudes: 2.6MC 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	7	7	EP		915	56.04	-0.02	33						1.0
DQRL	SN	7	7	ES		915	57.17	0.02							1.0
QRWL	SZ	15	133	EP		915	57.13	-0.11							1.0
QRWL	SN	15	133	ES		915	59.23	0.03							1.0
BHL	BZ	30	17	EP		915	59.56	0.01							1.0
RCY	SZ	30	122	EP		915	59.56	0.00							1.0
BHL	BN	30	17	ES		916	3.24	0.01							1.0
SHBL	SZ	37	152	EP		916	0.67	0.07							1.0

Epicentral Map of Lebanon

SEPTEMBER 2019

