

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

December

2014

Prepared by
The National Centre for Geophysical Research
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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

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 ($0.5 * (\text{peak to peak})$), (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.

December 1 2014 Hour: 10:49 37.0 Lat: 34.50N Lon: 36.75E Depth: 21 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.0 secs

NEBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	78	252	EP		1049	49.54	-0.04	62						1.0
BHL	BZ	121	237	EP		1049	55.86	0.04							1.0
DQRL	SZ	140	231	EP		1049	58.58	0.07							1.0
RCY	SZ	140	217	EP		1049	58.44	-0.07							1.0
DQRL	SN	140	231	ES		1050	14.41	-0.02							1.0
RCY	SE	140	217	ES		1050	14.45	0.01							1.0

December 1 2014 Hour: 10:58 18.5 Lat: 33.79N Lon: 35.78E Depth: 11 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	318	EP		1058	21.93	-0.02	42						1.0
DQRL	SZ	21	244	EP		1058	22.59	0.06							1.0
DQRL	SN	21	244	ES		1058	25.44	-0.04							0.2
QRWL	SZ	28	198	EP		1058	23.45	-0.09							1.0
RCY	SZ	33	170	EP		1058	24.33	0.05	42						1.0
RCY	SN	33	170	ES		1058	28.53	0.00							1.0

December 1 2014 Hour: 14: 2 14.6 Lat: 33.90N Lon: 35.86E Depth: 8 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	19	272	EP		14 2	17.91	-0.01	33						1.0
DQRL	SZ	34	231	EP		14 2	20.24	-0.00							1.0
DQRL	SE	34	231	ES		14 2	24.45	0.00							1.0
HWQ	SZ	43	11	EP		14 2	21.66	0.01							1.0
RCY	SZ	45	183	EP		14 2	21.91	0.00							1.0
RCY	SE	45	183	ES		14 2	27.34	-0.00							1.0

December 1 2014 Hour: 22:48 5.8 Agency: REL Regional
EMSC OT=22:48:05.8 35.01N 26.68E 10Km M=4.0 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		2249	55.54								
QRWL	SZ			EP		2249	53.68								

December 2 2014 Hour: 5:11 32.6 Agency: REL Distant
EMSC OT=05:11:32.6 6.20N 123.18E 633Km M=6.6 MORO GULF, MINDANAO, PHILIPPINES

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		523	0.46								
SHBL	BZ			EP		523	0.68								
QRWL	SZ			EP		523	0.60								

December 2 2014 Hour: 12:20 7.2 Lat: 33.47N Lon: 35.68E Depth: 2 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	9	1	EP		1220	8.70	-0.01							1.0
QRWL	SN	9	1	ES		1220	9.85	0.00							1.0
SHBL	BZ	14	156	EP		1220	9.57	-0.02							1.0
SHBL	BN	14	156	ES		1220	11.39	0.01							1.0
RCY	SZ	15	77	EP		1220	9.65	0.00	32						1.0
DQRL	SZ	28	339	EP		1220	11.80	0.01							1.0

December 2 2014 Hour: 14:59 18.3 Lat: 33.79N Lon: 35.79E Depth: 7 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	315	EP		1459	21.48	-0.03	47						1.0
BHL	BN	18	315	ES		1459	23.91	0.00							1.0
DQRL	SZ	23	246	EP		1459	22.20	0.05							1.0
QRWL	SZ	29	201	EP		1459	22.98	-0.08							1.0
RCY	SZ	33	173	EP		1459	23.76	0.05							1.0
RCY	SN	33	173	ES		1459	27.73	-0.00							1.0
HWQ	SZ	56	15	EP		1459	27.44	0.00							1.0

December 2 2014 Hour: 15:16 31.6 Lat: 33.41N Lon: 35.67E Depth: 8 Agency: REL Local
Magnitudes: 2.2MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	9	136	EP		1516	33.71	-0.02	21						1.0
SHBL	BE	9	136	ES		1516	35.33	0.02							1.0
QRWL	SZ	16	2	EP		1516	34.45	-0.04							1.0
QRWL	SE	16	2	ES		1516	36.63	0.00							1.0
RCY	SZ	18	57	EP		1516	34.87	0.01							1.0
DQRL	SZ	34	344	EP		1516	37.38	0.04							1.0

December 2 2014 Hour: 17:29 50.4 Lat: 33.81N Lon: 35.78E Depth: 22 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	312	EP		1729	54.76	-0.05	39						1.0
DQRL	SZ	23	239	EP		1729	55.51	0.01							1.0
DQRL	SN	23	239	ES		1729	59.32	0.03							1.0
QRWL	SZ	31	197	EP		1729	56.36	-0.04							1.0
QRWL	SN	31	197	ES		1730	0.86	-0.01							1.0
RCY	SZ	35	172	EP		1729	57.07	0.03							1.0
HWQ	SZ	54	17	EP		1729	59.92	0.38							0.2

December 3 2014 Hour: 8:38 51.7 Lat: 33.46N Lon: 35.64E Depth: 0 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	11	20	EP		838	53.41	0.02	27						1.0
QRWL	SN	11	20	ES		838	54.62	-0.05							1.0
SHBL	BZ	15	142	EP		838	54.11	-0.04							1.0
SHBL	BN	15	142	ES		838	55.99	-0.00							1.0
RCY	SZ	19	76	EP		838	54.72	0.06							1.0
DQRL	SZ	28	346	EP		838	56.26	0.02							1.0

December 3 2014 Hour: 11:16 34.5 Lat: 34.05N Lon: 36.76E Depth: 14 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

DAMASCUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	79	289	EP		1116	47.03	-0.07	48						1.0
HWQ	SN	79	289	ES		1116	56.44	-0.02							1.0
BHL	BZ	103	261	EP		1116	50.75	0.11							1.0
RCY	SZ	105	235	EP		1116	50.81	-0.12							1.0
RCY	SE	105	235	ES		1117	3.10	-0.02							1.0
DQRL	SZ	116	251	EP		1116	52.68	0.12							1.0

December 4 2014 Hour: 5:35 25.7

Agency: REL Regional

EMSC OT=05:35:25.7 35.88N 29.25E 30Km M=4.0 EASTERN MEDITERRANEAN SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		536	47.58								
HWQ	SZ			EP		536	48.29								
RCY	SZ			EP		536	50.43								

December 4 2014 Hour: 11:53 31.6 Lat: 33.53N Lon: 35.70E Depth: 0

Agency: REL Local

Magnitudes: 2.2MC REL

Rms: 0.1 secs

CENTRAL BEKAA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	3	323	EP		1153	32.04	-0.09	19						1.0
RCY	SZ	13	105	EP		1153	33.75	0.06							1.0
RCY	SN	13	105	ES		1153	35.19	-0.04							1.0
DQRL	SZ	23	329	EP		1153	35.47	0.07							1.0
DQRL	SN	23	329	ES		1153	38.21	0.01							1.0

December 4 2014 Hour: 18:45 13.6

Agency: REL Distant

EMSC OT=18:45:13.6 24.74S 176.93W 103Km M=5.4 SOUTH OF FIJI ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		19	4	52.93							
RCY	SZ			EP		19	4	53.20							
QRWL	SZ			EP		19	4	53.86							
DQRL	SZ			EP		19	4	54.19							

December 5 2014 Hour: 16:18 35.4 Lat: 33.81N Lon: 35.80E Depth: 19

Agency: REL Local

Magnitudes: 2.7MC REL

Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	309	EP		1618	39.69	-0.00							1.0
DQRL	SZ	24	243	EP		1618	40.39	-0.04	40						1.0
DQRL	SE	24	243	ES		1618	44.14	0.02							1.0
QRWL	SZ	31	201	EP		1618	41.27	0.04							1.0
QRWL	SN	31	201	ES		1618	45.50	-0.02							1.0

December 5 2014 Hour: 22:26 9.4 Lat: 32.95N Lon: 35.96E Depth: 0

Agency: REL Local

Magnitudes: 3.1MC REL

Rms: 0.1 secs

NORTH GALILEE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	62	349	EP		2226	19.34	-0.03	62						1.0
RCY	SN	62	349	ES		2226	26.62	-0.13							1.0
QRWL	SZ	71	339	EP		2226	20.86	-0.04							1.0
DQRL	SZ	92	337	EP		2226	24.10	-0.05							1.0
DQRL	SN	92	337	ES		2226	35.25	0.17							1.0
BHL	BZ	110	345	EP		2226	26.95	-0.14							1.0
HWQ	SZ	147	359	EP		2226	33.21	0.22							1.0

December 6 2014 Hour: 12:13 21.0 Lat: 33.35N Lon: 35.63E Depth: 0

Agency: REL Local

Magnitudes: 2.6MC REL

Rms: 0.1 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	23	12	EP		1213	24.56	-0.16	36						1.0
RCY	SZ	25	49	EP		1213	25.19	0.06							1.0
RCY	SE	25	49	ES		1213	28.17	0.00							1.0
DQRL	SZ	40	352	EP		1213	27.60	0.08							1.0
DQRL	SN	40	352	ES		1213	32.35	0.02							1.0

December 6 2014 Hour: 13: 3 23.3 Lat: 33.88N Lon: 35.83E Depth: 4 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	281	EP		13	3	25.97-0.04	53						1.0
DQRL	SZ	30	231	EP		13	3	28.24-0.01							1.0
RCY	SZ	42	179	EP		13	3	29.90-0.25							1.0
RCY	SN	42	179	ES		13	3	35.35 0.11							1.0
HWQ	SZ	46	14	EP		13	3	30.60-0.12							1.0
HWQ	SE	46	14	ES		13	3	36.35 0.13							1.0

December 7 2014 Hour: 8:12 11.2 Lat: 33.49N Lon: 35.63E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

SAIDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	9	37	EP		812		12.53-0.01	44						1.0
SHBL	BZ	19	144	EP		812		14.19 0.00							1.0
RCY	SZ	20	87	EP		812		14.27-0.03							1.0
RCY	SE	20	87	ES		812		16.65 0.02							1.0
DQRL	SZ	25	348	EP		812		15.21 0.03							1.0
DQRL	SN	25	348	ES		812		18.14-0.01							1.0
BHL	BZ	46	3	EP		812		18.65 0.00							1.0
HWQ	SZ	93	19	EP		812		26.11 0.00							0.2

December 7 2014 Hour: 8:49 2.2 Lat: 36.67N Lon: 34.39E Depth: 0 Agency: REL Regional
Magnitudes: 3.8MC REL Rms: 0.0 secs

TURKEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	301	152	EP		849		47.35 0.05	130						1.0
HWQ	SN	301	152	ES		850		19.47-0.03							1.0
BHL	BZ	328	159	EP		849		50.62-0.03							1.0
DQRL	SZ	346	162	EP		849		52.87-0.05							1.0
RCY	SZ	376	159	EP		849		56.69 0.01							1.0
RCY	SN	376	159	ES		850		35.86 0.03							1.0
SHBL	BZ	389	161	EP		849		58.29 0.03							1.0

December 8 2014 Hour: 12: 1 11.2 Lat: 33.47N Lon: 35.69E Depth: 0 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	9	355	EP		12	1	12.58-0.08	28						1.0
QRWL	SN	9	355	ES		12	1	13.72 0.00							1.0
RCY	SZ	14	77	EP		12	1	13.44-0.04							1.0
RCY	SE	14	77	ES		12	1	15.18 0.03							1.0
SHBL	BZ	14	159	EP		12	1	13.55 0.02							1.0
DQRL	SZ	29	337	EP		12	1	15.90 0.06							1.0

December 8 2014 Hour: 15: 2 13.3 Lat: 33.39N Lon: 35.65E Depth: 0 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.1 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	10	118	EP		15	2	14.96-0.01							1.0
SHBL	BN	10	118	ES		15	2	16.19-0.01							1.0
QRWL	SZ	18	11	EP		15	2	16.02-0.13							1.0
RCY	SZ	21	56	EP		15	2	16.77 0.06	24						1.0
RCY	SN	21	56	ES		15	2	19.22 0.00							1.0
DQRL	SZ	36	348	EP		15	2	19.13 0.08							1.0

December 8 2014 Hour: 15:34 27.2 Lat: 33.42N Lon: 35.68E Depth: 3 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	10	141	EP		1534	28.95	-0.00							1.0
SHBL	BN	10	141	ES		1534	30.28	0.01							1.0
QRWL	SZ	15	2	EP		1534	29.52	-0.10	29						1.0
QRWL	SE	15	2	ES		1534	31.46	0.03							1.0
RCY	SZ	17	59	EP		1534	30.07	0.02							1.0
DQRL	SZ	34	343	EP		1534	32.69	0.06							1.0

December 9 2014 Hour: 22:45 24.7 Lat: 33.70N Lon: 35.90E Depth: 8 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.1 secs

CENTRAL BEKAA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	24	195	EP		2245	28.78	-0.07							1.0
RCY	SN	24	195	ES		2245	31.91	0.01							1.0
QRWL	SZ	27	230	EP		2245	29.36	0.08							1.0
DQRL	SZ	31	271	EP		2245	29.88	-0.04	67						1.0
DQRL	SN	31	271	ES		2245	33.84	0.07							1.0
BHL	BZ	32	314	EP		2245	29.94	-0.18							1.0
HWQ	SZ	64	4	EP		2245	35.28	0.12							1.0

December 10 2014 Hour: 10:20 37.6 Lat: 33.56N Lon: 35.71E Depth: 1 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

CENTRAL BEKAA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	3	246	EP		1020	38.16	-0.07							1.0
QRWL	SN	3	246	ES		1020	38.73	0.03							1.0
RCY	SZ	13	122	EP		1020	39.78	0.00	30						1.0
DQRL	SZ	21	321	EP		1020	41.02	0.02							1.0
SHBL	BZ	24	173	EP		1020	41.43	0.01							1.0
SHBL	BN	24	173	ES		1020	44.26	0.00							1.0

December 10 2014 Hour: 16:11 1.2 Lat: 33.78N Lon: 35.75E Depth: 3 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	326	EP		1611	3.90	-0.02							1.0
DQRL	SZ	19	243	EP		1611	4.44	0.10	39						1.0
DQRL	SN	19	243	ES		1611	6.61	-0.03							1.0
QRWL	SZ	27	194	EP		1611	5.52	-0.08							1.0
RCY	SZ	33	166	EP		1611	6.55	0.00							1.0
RCY	SN	33	166	ES		1611	10.52	0.03							1.0
HWQ	SZ	58	18	EP		1611	10.56	-0.00							1.0

December 10 2014 Hour: 21:3 39.3 Agency: REL Distant
EMSC OT=21:03:39.3 25.58N 122.47E 255Km M=6.1 TAIWAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		2114	45.48								
BHL	BZ			EP		2114	45.48								
QRWL	SZ			EP		2114	45.67								
DQRL	SZ			EP		2114	46.16								

December 11 2014 Hour: 10:56 14.2 Lat: 33.79N Lon: 35.74E Depth: 13 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	15	328	EP		1056	17.56	-0.05	30						1.0
BHL	BE	15	328	ES		1056	20.14	0.02							1.0
DQRL	SZ	18	240	EP		1056	18.02	0.02							1.0
QRWL	SZ	27	192	EP		1056	19.16	-0.04							1.0
RCY	SZ	34	165	EP		1056	20.22	0.07							1.0

RCY SN 34 165 ES 1056 24.51-0.03 1.0

December 12 2014 Hour: 20:22 34.0 Agency: REL Distant

EMSC OT=20:22:34.0 18.90S 176.44W 300Km M=5.8 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ			EP		2041	40.02								
BHL	BZ			EP		2041	40.15								
RCY	SZ			EP		2041	40.68								

December 13 2014 Hour: 9:36 52.2 Lat: 33.83N Lon: 35.75E Depth: 26 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	12	312	EP		936	56.91	0.00	25						1.0
DQRL	SZ	22	231	EP		936	57.64	-0.03							1.0
DQRL	SN	22	231	ES		937	1.74	0.02							1.0
RCY	SZ	38	168	EP		936	59.50	0.03							1.0
RCY	SE	38	168	ES		937	4.85	-0.02							1.0

December 13 2014 Hour: 10:28 2.5 Lat: 33.49N Lon: 35.67E Depth: 0 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	6	13	EP		1028	3.40	-0.09	23						1.0
QRWL	SN	6	13	ES		1028	4.26	0.03							1.0
RCY	SZ	16	89	EP		1028	5.05	0.03							1.0
RCY	SN	16	89	ES		1028	6.90	-0.00							1.0
DQRL	SZ	25	339	EP		1028	6.58	0.04							1.0

December 13 2014 Hour: 14:17 53.9 Lat: 33.80N Lon: 35.76E Depth: 15 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	15	321	EP		1417	57.41	-0.04							1.0
DQRL	SZ	20	239	EP		1417	58.04	-0.02	50						1.0
DQRL	SN	20	239	ES		1418	1.15	0.04							1.0
RCY	SZ	34	168	EP		1417	59.97	-0.07							1.0
RCY	SE	34	168	ES		1418	4.60	0.04							1.0
HWQ	SZ	56	18	EP		1418	3.20	0.05							1.0

December 14 2014 Hour: 5: 6 33.6 Lat: 34.68N Lon: 36.41E Depth: 13 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.1 secs

HOMS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	61	224	EP		5 6	43.58	-0.04	65						1.0
HWQ	SN	61	224	ES		5 6	50.96	-0.09							1.0
BHL	BZ	110	219	EP		5 6	50.86	0.04							1.0
BHL	BE	110	219	ES		5 7	3.64	0.07							1.0
DQRL	SZ	133	216	EP		5 6	54.20	0.11							1.0
RCY	SZ	141	202	EP		5 6	55.26	-0.13							1.0
RCY	SN	141	202	ES		5 7	11.54	0.02							1.0
QRWL	SZ	142	208	EP		5 6	55.50	0.02							1.0

December 15 2014 Hour: 11:28 56.9 Lat: 33.82N Lon: 35.71E Depth: 29 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	10	330	EP		1129	1.94	0.04	47						1.0
BHL	BN	10	330	ES		1129	5.63	0.05							1.0
DQRL	SZ	18	225	EP		1129	2.46	0.04							1.0
DQRL	SN	18	225	ES		1129	6.40	-0.09							1.0
QRWL	SZ	31	185	EP		1129	3.61	0.03							1.0
RCY	SZ	38	162	EP		1129	4.50	0.02							1.0
RCY	SN	38	162	ES		1129	10.07	-0.01							1.0

HWQ SZ 55 23 EP 1129 6.51-0.07 1.0

December 15 2014 Hour: 14:24 27.0 Lat: 33.78N Lon: 35.79E Depth: 4 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	318	EP		1424	29.96	-0.06	49						1.0
BHL	BN	18	318	ES		1424	32.29	0.02							1.0
DQRL	SZ	22	247	EP		1424	30.55	-0.03							1.0
DQRL	SN	22	247	ES		1424	33.27	0.03							1.0
QRWL	SZ	28	200	EP		1424	31.53	-0.00							1.0
RCY	SZ	32	172	EP		1424	32.27	0.05							1.0
RCY	SN	32	172	ES		1424	36.08	-0.03							1.0
HWQ	SZ	57	15	EP		1424	36.21	0.02							1.0

December 15 2014 Hour: 15:50 34.0 Lat: 33.79N Lon: 35.78E Depth: 9 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	316	EP		1550	37.18	-0.04	49						1.0
BHL	BN	17	316	ES		1550	39.60	-0.02							1.0
DQRL	SZ	22	244	EP		1550	37.90	-0.00							1.0
DQRL	SN	22	244	ES		1550	40.89	0.08							1.0
QRWL	SZ	29	199	EP		1550	38.79	-0.12							1.0
RCY	SZ	33	172	EP		1550	39.61	-0.01							1.0
RCY	SN	33	172	ES		1550	43.83	0.02							1.0
SHBL	BZ	50	184	EP		1550	42.19	0.04							1.0
HWQ	SZ	56	16	EP		1550	43.21	0.06							1.0

December 16 2014 Hour: 11:52 0.6 Lat: 33.53N Lon: 35.90E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

CENTRAL BEKAA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	7	239	EP		1152	1.72	-0.10							1.0
QRWL	SZ	21	275	EP		1152	3.88	-0.06							1.0
SHBL	BZ	25	216	EP		1152	4.72	0.05	42						1.0
SHBL	BN	25	216	ES		1152	7.70	0.02							1.0
DQRL	SZ	37	302	EP		1152	6.55	0.06							1.0
DQRL	SN	37	302	ES		1152	10.87	0.02							1.0
BHL	BZ	47	331	EP		1152	8.23	-0.02							1.0
BHL	BN	47	331	ES		1152	13.92	0.02							1.0
HWQ	SZ	83	3	EP		1152	13.98	0.01							1.0

December 16 2014 Hour: 12:50 47.4 Lat: 33.47N Lon: 35.66E Depth: 5 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	8	13	EP		1250	49.01	-0.02	37						1.0
SHBL	BZ	16	152	EP		1250	50.15	-0.01							1.0
SHBL	BN	16	152	ES		1250	52.24	0.01							1.0
RCY	SZ	16	82	EP		1250	50.19	-0.01							1.0
RCY	SN	16	82	ES		1250	52.31	0.01							1.0
DQRL	SZ	27	342	EP		1250	51.85	0.02							1.0

December 16 2014 Hour: 14:33 19.8 Lat: 33.85N Lon: 35.83E Depth: 2 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	289	EP		1433	22.52	-0.11	48						1.0
BHL	BN	17	289	ES		1433	24.75	0.03							1.0
DQRL	SZ	29	236	EP		1433	24.54	-0.01							1.0
DQRL	SN	29	236	ES		1433	28.11	0.05							1.0
QRWL	SZ	37	202	EP		1433	25.71	-0.04							1.0
RCY	SZ	40	179	EP		1433	26.29	0.05							1.0

RCY	SN	40	179	ES	1433	30.97	-0.04										1.0
HWQ	SZ	48	13	EP	1433	27.63	0.04										1.0
SHBL	BZ	57	188	EP	1433	28.97	-0.01										1.0
SHBL	BN	57	188	ES	1433	35.80	0.03										1.0

December 16 2014 Hour: 16:32 43.7 Lat: 33.80N Lon: 35.76E Depth: 13 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	319	EP		1632	47.14	-0.02	45						1.0
BHL	BN	16	319	ES		1632	49.70	0.01							1.0
DQRL	SZ	21	241	EP		1632	47.77	-0.03							1.0
DQRL	SN	21	241	ES		1632	50.83	0.02							1.0
RCY	SZ	34	169	EP		1632	49.69	-0.02							1.0
RCY	SN	34	169	ES		1632	54.15	0.02							1.0
HWQ	SZ	56	17	EP		1632	53.01	0.02							1.0

December 17 2014 Hour: 0:3 60.0 Lat: 33.78N Lon: 35.79E Depth: 3 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	19	316	EP		0	4	3.07	-0.04	36					1.0
BHL	BN	19	316	ES		0	4	5.44	0.02						1.0
DQRL	SZ	23	248	EP		0	4	3.76	0.07						1.0
DQRL	SN	23	248	ES		0	4	6.39	-0.04						1.0
RCY	SZ	32	173	EP		0	4	5.15	-0.04						1.0
RCY	SN	32	173	ES		0	4	9.06	0.02						1.0
HWQ	SZ	57	14	EP		0	4	9.17	0.00						1.0

December 17 2014 Hour: 2:42 0.0 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ			EP		242	44.86								
RCY	SZ			EP		242	44.37								

December 17 2014 Hour: 4:0 17.2 Lat: 33.11N Lon: 36.29E Depth: 45 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.2 secs

DAMASCUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	61	315	EP		4	0	28.22	-0.05	62					1.0
RCY	SN	61	315	ES		4	0	36.47	0.00						1.0
DQRL	SZ	94	315	EP		4	0	32.28	0.08						1.0
DQRL	SN	94	315	ES		4	0	43.29	-0.01						1.0
BHL	BZ	106	326	EP		4	0	32.87	-0.79						0.2
HWQ	SZ	134	346	EP		4	0	37.05	0.03						1.0

December 17 2014 Hour: 16:17 13.9 Lat: 34.08N Lon: 35.74E Depth: 1 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	21	203	EP		1617	17.27	-0.08	43						1.0
BHL	BN	21	203	ES		1617	19.96	0.04							1.0
HWQ	SZ	29	40	EP		1617	18.53	0.00							1.0
DQRL	SZ	45	201	EP		1617	21.17	0.07							1.0
DQRL	SN	45	201	ES		1617	26.40	-0.04							1.0
QRWL	SZ	59	186	EP		1617	23.47	-0.00							1.0

December 18 2014 Hour: 16:24 18.6 Lat: 34.03N Lon: 35.73E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	15	208	EP		1624	21.06	0.02	48						1.0
BHL	BN	15	208	ES		1624	22.83	-0.03							1.0
HWQ	SZ	34	35	EP		1624	24.13	0.02							1.0
HWQ	SE	34	35	ES		1624	28.19	-0.02							1.0

DQRL	SZ	39	203	EP		1624	24.80	0.01									1.0
QRWL	SZ	53	185	EP		1624	27.15	-0.00									1.0
RCY	SZ	59	171	EP		1624	28.16	0.00									1.0

December 18 2014 Hour: 20:29 8.5 Lat: 34.19N Lon: 35.68E Depth: 24 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.1 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	26	69	EP		2029	14.21	-0.02	30						1.0
HWQ	SE	26	69	ES		2029	18.47	0.02							1.0
BHL	BZ	32	185	EP		2029	14.84	-0.08							1.0
BHL	BE	32	185	ES		2029	19.64	0.00							1.0
DQRL	SZ	55	191	EP		2029	18.03	0.11							1.0
QRWL	SZ	72	180	EP		2029	20.21	-0.04							1.0

December 19 2014 Hour: 14:31 36.2 Lat: 33.89N Lon: 35.84E Depth: 9 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	276	EP		1431	39.44	-0.01	49						1.0
BHL	BN	17	276	ES		1431	41.87	-0.01							1.0
BEYL	SZ	32	267	EP		1431	41.73	0.15							0.2
DQRL	SZ	32	231	EP		1431	41.70	0.08							1.0
QRWL	SZ	40	201	EP		1431	42.74	-0.17							1.0
RCY	SZ	43	180	EP		1431	43.27	-0.12							1.0
RCY	SN	43	180	ES		1431	48.84	0.11							1.0
HWQ	SZ	45	13	EP		1431	43.60	0.03							1.0
SHBL	BZ	60	188	EP		1431	46.15	0.07							1.0
SHBL	BN	60	188	ES		1431	53.41	-0.01							1.0

December 21 2014 Hour: 11:34 14.8 Agency: REL Distant
EMSC OT=11:34:14.8 2.19N 126.68E 40Km M=6.3 MOLUCCA SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1147	6.72								
QRWL	SZ			EP		1147	7.47								
DQRL	SZ			EP		1147	8.82								

December 23 2014 Hour: 11:52 32.9 Lat: 33.85N Lon: 34.87E Depth: 29 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.0 secs

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	67	104	EP		1152	44.13	-0.01							1.0
DQRL	SE	67	104	ES		1152	52.47	0.00							1.0
BHL	BZ	73	85	EP		1152	45.14	0.15							0.2
QRWL	SZ	82	114	EP		1152	46.30	-0.02							1.0
RCY	SZ	98	113	EP		1152	48.57	0.03	54						1.0
RCY	SN	98	113	ES		1153	0.12	-0.00							1.0
HWQ	SZ	110	64	EP		1152	49.99	-0.08							0.2

December 23 2014 Hour: 16:24 0.1 Lat: 33.81N Lon: 35.73E Depth: 14 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	13	326	EP		1624	3.36	-0.02	42						1.0
BHL	BN	13	326	ES		1624	5.80	0.01							1.0
DQRL	SZ	19	233	EP		1624	4.05	-0.01							1.0
DQRL	SN	19	233	ES		1624	7.00	0.01							1.0
RCY	SZ	36	164	EP		1624	6.44	-0.00							1.0
HWQ	SZ	56	21	EP		1624	9.32	0.01							1.0

December 24 2014 Hour: 9:40 14.0 Lat: 33.81N Lon: 35.77E Depth: 21 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	14	314	EP		940	18.19	0.05	35						1.0
BHL	BE	14	314	ES		940	21.25	0.02							1.0
DQRL	SZ	22	237	EP		940	18.77	-0.09							1.0
RCY	SZ	36	170	EP		940	20.79	0.19							1.0
RCY	SN	36	170	ES		940	25.42	-0.10							1.0
HWQ	SZ	54	18	EP		940	23.00	-0.07							1.0

December 24 2014 Hour: 14:29 37.6 Lat: 33.79N Lon: 35.79E Depth: 11 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	315	EP		1429	41.06	-0.03	48						1.0
BHL	BN	17	315	ES		1429	43.67	0.01							1.0
DQRL	SZ	22	244	EP		1429	41.79	0.04							1.0
QRWL	SZ	29	200	EP		1429	42.67	-0.04							1.0
RCY	SZ	33	172	EP		1429	43.39	0.01							1.0
RCY	SN	33	172	ES		1429	47.65	0.00							1.0
HWQ	SZ	56	15	EP		1429	46.86	0.01							1.0

December 25 2014 Hour: 11:56 3.9 Lat: 33.88N Lon: 35.82E Depth: 12 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	278	EP		1156	7.18	-0.06	46						1.0
BHL	BN	16	278	ES		1156	9.67	-0.01							1.0
DQRL	SZ	31	230	EP		1156	9.44	0.12							1.0
DQRL	SN	31	230	ES		1156	13.31	0.01							1.0
QRWL	SZ	40	199	EP		1156	10.54	-0.11							1.0
RCY	SZ	43	178	EP		1156	11.16	-0.05							1.0
RCY	SN	43	178	ES		1156	16.65	0.06							1.0
HWQ	SZ	45	15	EP		1156	11.55	0.04							1.0

December 25 2014 Hour: 13:23 11.8 Lat: 33.47N Lon: 35.69E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.1 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	8	358	EP		1323	13.12	-0.09	37						1.0
RCY	SZ	14	79	EP		1323	14.19	0.03							1.0
SHBL	BZ	15	158	EP		1323	14.21	-0.04							1.0
SHBL	BN	15	158	ES		1323	16.08	0.04							1.0
DQRL	SZ	28	338	EP		1323	16.32	-0.04							1.0
DQRL	SN	28	338	ES		1323	19.81	0.10							1.0

December 25 2014 Hour: 14:7 50.1 Lat: 34.75N Lon: 34.41E Depth: 0 Agency: REL Regional
Magnitudes: 3.5MC REL Rms: 0.2 secs

CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	SZ	139	134	EP		14	8	12.28	-0.15						1.0
BHL	BZ	148	129	EP		14	8	13.61	-0.15	104					1.0
BHL	BN	148	129	ES		14	8	31.23	-0.01						1.0
HWQ	SZ	150	110	EP		14	8	14.24	0.10						1.0
DQRL	SZ	157	137	EP		14	8	14.86	-0.31						1.0
QRWL	SZ	177	138	EP		14	8	18.03	-0.07						1.0
RCY	SZ	191	136	EP		14	8	20.15	0.12						1.0
RCY	SN	191	136	ES		14	8	42.31	0.17						1.0
SHBL	BZ	198	141	EP		14	8	21.20	0.30						1.0

December 25 2014 Hour: 15:30 30.3 Lat: 33.41N Lon: 35.65E Depth: 8 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	11	128	EP		1530	32.64	0.03							1.0
SHBL	BN	11	128	ES		1530	34.34	-0.00							1.0
QRWL	SZ	16	10	EP		1530	33.14	-0.09							1.0
RCY	SZ	20	60	EP		1530	33.84	0.03	31						1.0
RCY	SN	20	60	ES		1530	36.43	-0.00							1.0
DQRL	SZ	34	347	EP		1530	35.95	-0.01							1.0
DQRL	SN	34	347	ES		1530	40.22	0.05							1.0

December 25 2014 Hour: 23:39 28.4 Lat: 33.68N Lon: 35.45E Depth: 11 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.0 secs

SAIDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	12	76	EP		2339	31.21	-0.02	27						1.0
DQRL	SN	12	76	ES		2339	33.29	-0.00							1.0
QRWL	SZ	26	124	EP		2339	33.13	0.00							1.0
BHL	BZ	31	37	EP		2339	33.91	0.01							1.0
BHL	BN	31	37	ES		2339	37.94	-0.00							1.0

December 26 2014 Hour: 0:14 5.9 Lat: 33.69N Lon: 35.49E Depth: 13 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.1 secs

SAIDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	8	81	EP		0 1	48.43	-0.10	27						1.0
DQRL	SN	8	81	ES		0 1	50.56	0.09							1.0
QRWL	SZ	25	132	EP		0 1	50.39	-0.06							1.0
BHL	BZ	28	34	EP		0 1	50.89	-0.09							1.0
BHL	BN	28	34	ES		0 1	54.81	0.08							1.0

December 26 2014 Hour: 2:34 43.7 Lat: 34.16N Lon: 35.77E Depth: 34 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	21	51	EP		2 3	49.97	0.00							1.0
HWQ	SE	21	51	ES		2 3	54.64	0.00							1.0
BHL	BZ	30	201	EP		2 3	50.76	0.01	45						1.0
BHL	BN	30	201	ES		2 3	55.98	-0.01							1.0
DQRL	SZ	53	200	EP		2 3	53.43	0.02							1.0
RCY	SZ	74	175	EP		2 3	55.92	-0.04							1.0
RCY	SN	74	175	ES		2 4	5.09	0.02							1.0

December 26 2014 Hour: 3:03 32.2 Lat: 33.69N Lon: 35.44E Depth: 9 Agency: REL Local
Magnitudes: 3.3MC REL Rms: 0.3 secs

SAIDA REGION

Earthquake was felt

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	12	84	EP		3 0	34.75	0.02	90						1.0
DQRL	SN	12	84	ES		3 0	36.77	0.13							1.0
BEYL	SZ	20	14	EP		3 0	35.28	-0.49							0.2
QRWL	SZ	28	126	EP		3 0	36.71	-0.21							1.0
BHL	BZ	31	40	EP		3 0	37.30	-0.07							1.0
BHL	BN	31	40	ES		3 0	41.23	0.00							1.0
RCY	SZ	43	121	EP		3 0	39.28	0.02							1.0
HWQ	SZ	80	36	EP		3 0	45.77	0.62							0.2

December 26 2014 Hour: 5:11 11.0 Lat: 33.72N Lon: 35.42E Depth: 0 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.0 secs

SAIDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	14	94	EP		511	13.21	-0.04	23						1.0
DQRL	SN	14	94	ES		511	14.94	0.01							1.0
BHL	BZ	30	46	EP		511	15.85	0.01							1.0
BHL	BN	30	46	ES		511	19.46	0.01							1.0

December 26 2014 Hour: 9: 5 20.9 Lat: 33.70N Lon: 35.57E Depth: 13 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.1 secs

SAIDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	1	358	EP		9 5	23.05	-0.17	25						1.0
DQRL	SN	1	358	ES		9 5	25.06	0.10							1.0
QRWL	SZ	20	148	EP		9 5	24.80	-0.02							1.0
BHL	BZ	24	19	EP		9 5	25.30	-0.12							1.0
BHL	BN	24	19	ES		9 5	28.89	0.12							1.0

December 26 2014 Hour: 15:53 3.2 Lat: 33.78N Lon: 35.78E Depth: 5 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	320	EP		1553	6.16	-0.11	42						1.0
BHL	BN	18	320	ES		1553	8.57	0.01							1.0
DQRL	SZ	21	247	EP		1553	6.83	0.08							1.0
DQRL	SN	21	247	ES		1553	9.41	0.02							1.0
QRWL	SZ	27	199	EP		1553	7.65	-0.08							1.0
RCY	SZ	32	170	EP		1553	8.46	-0.01							1.0
RCY	SN	32	170	ES		1553	12.41	0.03							1.0
HWQ	SZ	57	16	EP		1553	12.56	0.07							1.0

December 27 2014 Hour: 17:52 53.2 Lat: 33.80N Lon: 35.75E Depth: 5 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	15	323	EP		1752	55.80	-0.01	32						1.0
BHL	BN	15	323	ES		1752	57.74	-0.01							1.0
DQRL	SZ	19	238	EP		1752	56.48	-0.03							1.0
DQRL	SN	19	238	ES		1752	58.95	-0.02							1.0
BEYL	SZ	25	289	EP		1752	57.43	0.09							1.0
QRWL	SZ	28	193	EP		1752	57.92	0.03							1.0
QRWL	SN	28	193	ES		1753	1.38	0.00							1.0
RCY	SZ	34	166	EP		1752	58.90	0.06							1.0
HWQ	SZ	56	19	EP		1753	2.30	-0.04							1.0

December 27 2014 Hour: 17:54 10.7 Lat: 33.80N Lon: 35.73E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	14	331	EP		1754	12.95	-0.02	40						1.0
BHL	BN	14	331	ES		1754	14.52	-0.10							1.0
DQRL	SZ	18	236	EP		1754	13.63	0.03							1.0
DQRL	SN	18	236	ES		1754	15.75	0.04							1.0
BEYL	SZ	23	291	EP		1754	14.52	0.03							1.0
QRWL	SZ	28	189	EP		1754	14.92	-0.31							1.0
HWQ	SZ	57	21	EP		1754	20.06	0.10							1.0

December 28 2014 Hour: 12:43 53.1 Agency: REL Regional

EMSC OT=12:43:53.1 35.52N 28.42E 30Km M=4.2 EASTERN MEDITERRANEAN SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1245	22.44								
BHL	BZ			EP		1245	21.53								
HWQ	SZ			EP		1245	24.06								
RCY	SZ			EP		1245	24.67								

December 28 2014 Hour: 16:29 4.1 Lat: 34.83N Lon: 36.57E Depth: 5 Agency: REL Local
Magnitudes: 3.7MC REL Rms: 0.2 secs

HOMS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	84	223	EP		1629	17.77	0.13	158						1.0
HWQ	SN	84	223	ES		1629	27.60	-0.09							1.0
BHL	BZ	133	220	EP		1629	25.13	-0.07							1.0
BHL	BN	133	220	ES		1629	40.86	0.02							1.0
BEYL	SZ	145	223	EP		1629	27.18	0.21							1.0
DQRL	SZ	155	217	EP		1629	28.53	0.07							1.0
DQRL	SN	155	217	ES		1629	46.59	0.08							1.0
RCY	SZ	163	205	EP		1629	29.34	-0.26							1.0
QRWL	SZ	164	210	EP		1629	29.72	-0.06							1.0

December 30 2014 Hour: 16: 3 2.9 Lat: 33.83N Lon: 35.75E Depth: 25 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	12	313	EP		16 3	7.47	0.09	40						1.0
BHL	BN	12	313	ES		16 3	10.64	-0.04							1.0
DQRL	SZ	22	230	EP		16 3	8.23	0.05							1.0
DQRL	SN	22	230	ES		16 3	12.05	-0.02							1.0
QRWL	SZ	32	191	EP		16 3	9.25	-0.07							1.0
RCY	SZ	38	168	EP		16 3	10.10	-0.01							1.0
RCY	SE	38	168	ES		16 3	15.45	0.03							1.0
HWQ	SZ	53	20	EP		16 3	12.01	-0.03							1.0

December 30 2014 Hour: 21:17 23.8 Agency: REL Distant

EMSC OT=21:17:23.8 20.42S 178.45W 600Km M=6.1 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2135	56.58								
RCY	SZ			EP		2135	57.15								
QRWL	SZ			EP		2135	57.35								
DQRL	SZ			EP		2135	57.59								

December 30 2014 Hour: 22: 6 35.5 Lat: 34.12N Lon: 36.31E Depth: 5 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.1 secs

HERMEL BAALBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	65	249	EP		22 6	46.03	-0.03	56						1.0
BHL	BE	65	249	ES		22 6	53.86	-0.00							1.0
RCY	SZ	82	213	EP		22 6	48.77	0.04							1.0
DQRL	SZ	82	237	EP		22 6	48.92	0.09							1.0
DQRL	SE	82	237	ES		22 6	58.67	0.00							1.0
QRWL	SZ	86	223	EP		22 6	49.30	-0.10							1.0

December 31 2014 Hour: 0: 6 9.4 Agency: REL Distant

EMSC OT=00:06:09.4 20.38S 178.51W 594Km M=5.5 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		024	44.96								
BHL	BZ			EP		024	45.86								
RCY	SZ			EP		024	46.05								

December 31 2014 Hour: 11:25 13.5 Lat: 33.47N Lon: 35.68E Depth: 2 Agency: REL Local
Magnitudes: 2.5MC REL
Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	8	2	EP		1125	14.84	-0.04							1.0
RCY	SZ	15	81	EP		1125	15.95	0.02	32						1.0
SHBL	BZ	15	157	EP		1125	15.99	-0.04							1.0
SHBL	BN	15	157	ES		1125	17.95	0.04							1.0
DQRL	SZ	28	338	EP		1125	17.95	-0.00							1.0
DQRL	SN	28	338	ES		1125	21.29	0.03							1.0

Epicentral Map of Lebanon

DECEMBER 2014

