

Republic of Lebanon  
National Council for Scientific Research

# Provisional Seismological Bulletin

from the

## NATIONAL SEISMIC NETWORK

November

2013

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	Opened Nov 2000
FKH	3414.69N	3624.61E	1152	FAKEHEH	Opened Dec 2004
RCY	3329.79N	3550.14E	1370	RACHAYA	Opened Jun 2006
DWR	3323.13N	3524.08E	420	DWEIR	Scheduled 2003
BEYL	3352.30N	3529.59E	49	BEIRUT	Opened Jul 2006
NAQL	3307.02N	3508.46E	83	NAQOURA	Opened Jul 2008
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.

November 1 2013 Hour: 3:24 8.0 Agency: REL Distant

EMSC OT=03:24:08.0 20.76S 178.45W 527Km M=5.1 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		342	50.94								
BHL	BZ			EP		342	52.01								
RCY	SZ			EP		342	52.06								

November 1 2013 Hour: 15:27 28.7 Lat: 33.47N Lon: 35.69E Depth: 0 Agency: REL Local  
Magnitudes: 3.0MC 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	354	EP		1527	29.99	-0.09							1.0
RCY	SZ	14	78	EP		1527	30.90	0.01							1.0
RCY	SN	14	78	ES		1527	32.51	-0.02							1.0
SHBL	BZ	14	160	EP		1527	30.98	-0.02							1.0
SHBL	BN	14	160	ES		1527	32.76	0.04							1.0
DQRL	SZ	29	337	EP		1527	33.27	-0.01	59						1.0
BHL	BZ	48	356	EP		1527	36.46	-0.01							1.0
BHL	BN	48	356	ES		1527	42.28	0.05							1.0
HWQ	SZ	93	15	EP		1527	43.68	0.06							1.0

November 2 2013 Hour: 9:43 39.8 Lat: 33.78N Lon: 35.78E Depth: 4 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	320	EP		943	42.61	-0.08	45						1.0
DQRL	SZ	21	245	EP		943	43.21	-0.04							1.0
DQRL	SE	21	245	ES		943	45.88	0.07							1.0
RCY	SZ	33	170	EP		943	45.05	-0.04							1.0
RCY	SN	33	170	ES		943	49.04	0.01							1.0
HWQ	SZ	57	16	EP		943	49.08	0.08							1.0

November 2 2013 Hour: 15:9 15.6 Lat: 34.08N Lon: 36.21E Depth: 15 Agency: REL Local  
Magnitudes: 3.1MC REL Rms: 0.1 secs

HERMEL BAALBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	33	312	EP		15	9	21.43	-0.02	64					1.0
HWQ	BN	33	312	ES		15	9	25.80	0.03						1.0
BHL	BZ	55	249	EP		15	9	24.70	-0.00						1.0
BHL	BN	55	249	ES		15	9	31.36	-0.07						1.0
DQRL	SZ	72	235	EP		15	9	27.39	0.14						1.0
RCY	SZ	74	208	EP		15	9	27.36	-0.09						1.0
RCY	SN	74	208	ES		15	9	36.19	-0.02						1.0
SHBL	BZ	92	208	EP		15	9	30.12	-0.06						1.0
SHBL	BN	92	208	ES		15	9	41.04	0.08						1.0

November 2 2013 Hour: 15:52 47.0 Agency: REL Distant

EMSC OT=15:52:47.0 23.60S 112.63W 10Km M=6.0 EASTER ISLAND

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1612	32.65								
BHL	BZ			EP		1612	32.65								
SHBL	BZ			EP		1612	32.98								

November 2 2013 Hour: 18:53 45.0 Agency: REL Distant

EMSC OT=18:53:45.0 19.21S 172.59W 2Km M=6.2 TONGA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1913	33.64								
BHL	BZ			EP		1913	34.34								
SHBL	BZ			EP		1913	35.24								

November 3 2013 Hour: 11:1 19.5

Agency: REL Distant

EMSC OT=11:03:40.0 04.68N 123.41E 548Km M=5.9 CELEBES SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1115	20.08								
RCY	SZ			EP		1115	21.07								
BHL	BZ			EP		1115	21.18								
SHBL	BZ			EP		1115	21.40								
QRWL	SZ			EP		1115	21.45								
DQRL	SZ			EP		1115	21.84								

November 3 2013 Hour: 13:32 18.2 Lat: 33.75N Lon: 35.85E Depth: 0

Agency: REL Local

Magnitudes: 3.0MC REL

Rms: 0.1 secs

CENTRAL BEKAA

Earthquake was felt

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	26	314	EP		1332	22.19-0.09	58							1.0
DQRL	SZ	27	260	EP		1332	22.42-0.05								1.0
DQRL	SN	27	260	ES		1332	25.71 0.06								1.0
QRWL	SZ	27	216	EP		1332	22.56 0.01								1.0
RCY	SZ	28	183	EP		1332	22.60-0.04								1.0
RCY	SN	28	183	ES		1332	25.95-0.01								1.0
BEYL	BZ	36	293	EP		1332	23.91-0.09								0.2
SHBL	BZ	45	193	EP		1332	25.51 0.04								1.0
SHBL	BN	45	193	ES		1332	30.86-0.02								1.0
HWQ	BZ	60	8	EP		1332	27.85 0.06								1.0

November 3 2013 Hour: 15:48 6.3 Lat: 33.54N Lon: 35.72E Depth: 0

Agency: REL Local

Magnitudes: 2.9MC 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	288	EP		1548	6.59-0.22	53							1.0
RCY	SZ	12	113	EP		1548	8.17-0.07								1.0
SHBL	BZ	21	173	EP		1548	9.78 0.07								1.0
SHBL	BN	21	173	ES		1548	12.32 0.06								1.0
DQRL	SZ	23	324	EP		1548	10.07 0.10								1.0
DQRL	SN	23	324	ES		1548	12.79 0.09								1.0
BHL	BZ	41	352	EP		1548	12.80-0.07								1.0
BHL	BN	41	352	ES		1548	17.81 0.05								1.0
HWQ	SZ	85	15	EP		1548	19.93-0.01								1.0

November 3 2013 Hour: 17:10 24.0

Agency: REL Distant

EMSC OT=17:10:24.0 18.65S 175.36W 221Km M=5.2 TONGA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1729	46.13								
HWQ	BZ			EP		1729	45.03								

November 4 2013 Hour: 15:18 9.7 Lat: 33.79N Lon: 35.79E Depth: 0

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	316	EP		1518	12.68 0.05	39							1.0
BHL	BE	18	316	ES		1518	14.71-0.08								1.0
DQRL	SZ	22	246	EP		1518	13.32 0.01								1.0
DQRL	SE	22	246	ES		1518	16.01 0.04								1.0
RCY	SZ	33	172	EP		1518	14.92-0.05								1.0
HWQ	SZ	56	15	EP		1518	18.85 0.04								1.0

November 4 2013 Hour: 15:41 36.0

Agency: REL Regional

EMSC OT=15:41:36.0 36.65N 27.47E 116Km M=4.2 DODECANESE REG

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1543	15.97								
RCY	SZ			EP		1543	19.01								

November 5 2013 Hour: 9:37 16.8 Lat: 33.80N Lon: 35.80E Depth: 2 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	18	312	EP		937	19.72	-0.01	26						1.0
BHL	BE	18	312	ES		937	21.94	0.00							1.0
DQRL	SZ	24	245	EP		937	20.61	0.01							1.0
DQRL	SN	24	245	ES		937	23.45	-0.00							1.0
RCY	SZ	33	174	EP		937	22.18	-0.00							1.0
HWQ	SZ	55	14	EP		937	25.68	0.01							1.0

November 5 2013 Hour: 12:40 40.1 Lat: 33.87N Lon: 35.84E Depth: 0 Agency: REL Local

Magnitudes: 3.0MC 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	281	EP		1240	42.94	-0.00	60						1.0
BHL	BE	17	281	ES		1240	45.05	0.03							1.0
DQRL	SZ	31	233	EP		1240	45.08	-0.07							1.0
DQRL	SE	31	233	ES		1240	48.85	-0.01							1.0
RCY	SZ	42	180	EP		1240	46.89	-0.00							1.0
RCY	SN	42	180	ES		1240	51.89	-0.01							1.0
HWQ	BZ	46	13	EP		1240	47.54	-0.01							1.0

November 5 2013 Hour: 14:58 6.3 Lat: 33.53N Lon: 35.70E Depth: 0 Agency: REL Local

Magnitudes: 2.8MC 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	320	EP		1458	6.67	-0.07	45						1.0
RCY	SZ	13	106	EP		1458	8.25	-0.09							1.0
RCY	SN	13	106	ES		1458	9.93	0.04							1.0
SHBL	BZ	20	169	EP		1458	9.57	0.04							1.0
SHBL	BN	20	169	ES		1458	11.98	0.02							1.0
DQRL	SZ	23	328	EP		1458	9.96	-0.04							1.0
DQRL	SN	23	328	ES		1458	12.84	0.07							1.0
BHL	BZ	42	354	EP		1458	12.95	-0.07							0.2
HWQ	SZ	86	15	EP		1458	20.20	0.04							1.0

November 5 2013 Hour: 15:13 15.7 Lat: 33.79N Lon: 35.80E Depth: 1 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	19	314	EP		1513	18.63	-0.08	46						1.0
BHL	BN	19	314	ES		1513	20.99	0.03							1.0
DQRL	SZ	23	247	EP		1513	19.43	0.02							1.0
RCY	SZ	32	174	EP		1513	20.93	0.02							1.0
RCY	SN	32	174	ES		1513	24.79	-0.01							1.0
HWQ	SZ	56	14	EP		1513	24.74	0.02							1.0

November 5 2013 Hour: 15:14 33.1 Lat: 33.78N Lon: 35.75E Depth: 0 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	17	328	EP		1514	35.86	-0.01	28						1.0
BHL	BN	17	328	ES		1514	37.87	-0.01							1.0
DQRL	SZ	18	245	EP		1514	36.12	0.01							1.0
DQRL	SN	18	245	ES		1514	38.30	0.01							1.0
RCY	SZ	32	165	EP		1514	38.28	-0.02							1.0

HWQ SZ 59 18 EP 1514 42.64 0.02 1.0

November 5 2013 Hour: 16:16 36.0

Agency: REL Regional

EMSC OT=16:16:36.0 35.17N 31.57E 10Km M=3.7 CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1617	37.20								
HWQ	SZ			EP		1617	35.70								

November 5 2013 Hour: 17: 7 25.7 Lat: 33.80N Lon: 35.78E Depth: 10 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	16	316	EP		17 7	28.95	0.00	35						1.0
BHL	BN	16	316	ES		17 7	31.33	-0.00							1.0
DQRL	SZ	22	241	EP		17 7	29.71	0.00							1.0
RCY	SZ	34	171	EP		17 7	31.54	-0.01							1.0
RCY	SN	34	171	ES		17 7	35.87	0.01							1.0
HWQ	SZ	55	16	EP		17 7	34.86	0.00							1.0

November 7 2013 Hour: 16:52 1.4 Lat: 32.93N Lon: 35.63E Depth: 0 Agency: REL Regional  
Magnitudes: 2.7MC REL Rms: 0.0 secs

NORTH GALILEE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	48	13	EP		1652	9.05	-0.08	40						1.0
SHBL	BN	48	13	ES		1652	14.84	-0.00							1.0
RCY	SZ	66	17	EP		1652	12.11	0.06							1.0
QRWL	SZ	69	4	EP		1652	12.54	0.02							1.0
QRWL	SN	69	4	ES		1652	20.73	0.00							1.0
HWQ	SZ	153	11	EP		1652	25.76	-0.00							1.0

November 8 2013 Hour: 11:47 57.4 Lat: 33.88N Lon: 35.66E Depth: 26 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	2	341	EP		1148	1.68	0.01	43						1.0
DQRL	SZ	22	203	EP		1148	2.83	0.02							1.0
DQRL	SN	22	203	ES		1148	6.81	-0.02							1.0
RCY	SZ	46	159	EP		1148	5.68	-0.02							1.0
RCY	SN	46	159	ES		1148	11.87	0.01							1.0
HWQ	SZ	51	31	EP		1148	6.32	-0.00							1.0

November 8 2013 Hour: 14:46 44.3 Lat: 33.47N Lon: 35.68E Depth: 0 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	360	EP		1446	45.70	-0.03	37						1.0
QRWL	SN	8	360	ES		1446	46.76	0.01							1.0
RCY	SZ	15	79	EP		1446	46.71	0.01							1.0
RCY	SN	15	79	ES		1446	48.44	-0.00							1.0
SHBL	BZ	15	157	EP		1446	46.74	-0.01							1.0
SHBL	BN	15	157	ES		1446	48.54	0.01							1.0
DQRL	SZ	28	338	EP		1446	48.88	0.01							1.0

November 9 2013 Hour: 14: 6 58.1 Lat: 33.47N Lon: 35.67E Depth: 4 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	8	5	EP		14 6	59.62	-0.03	24						1.0
QRWL	SN	8	5	ES		14 7	0.79	0.00							1.0
RCY	SZ	15	81	EP		14 7	0.74	0.01							1.0
SHBL	BZ	16	155	EP		14 7	0.72	-0.06							1.0
SHBL	BN	16	155	ES		14 7	2.79	0.04							1.0
DQRL	SZ	27	339	EP		14 7	2.64	0.04							1.0



November 9 2013 Hour: 14:53 31.0

Agency: REL Distant

EMSC OT=14:53:31.0 28.47S 176.81W 40Km M=5.4 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1513	21.98								
SHBL	BZ			EP		1513	22.16								

November 10 2013 Hour: 12:51 39.8 Lat: 33.45N Lon: 35.64E

Depth: 3 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	21	EP		1251	41.68	-0.11	28						1.0
QRWL	SN	11	21	ES		1251	43.26	0.04							1.0
SHBL	BZ	15	139	EP		1251	42.38	-0.01							1.0
SHBL	BN	15	139	ES		1251	44.30	0.02							1.0
RCY	SZ	19	75	EP		1251	42.99	-0.00							1.0
DQRL	SZ	29	347	EP		1251	44.55	0.01							1.0
BHL	BZ	50	2	EP		1251	48.01	0.05							1.0

November 10 2013 Hour: 13:15 14.1 Lat: 33.52N Lon: 35.69E

Depth: 0 Agency: REL Local

Magnitudes: 2.9MC 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	342	EP		1315	14.63	-0.03							1.0
RCY	SZ	13	100	EP		1315	16.20	-0.05	56						1.0
RCY	SN	13	100	ES		1315	17.87	0.01							1.0
SHBL	BZ	19	166	EP		1315	17.31	0.10							1.0
DQRL	SZ	24	331	EP		1315	18.02	0.11							1.0
DQRL	SN	24	331	ES		1315	20.74	-0.02							1.0
BHL	BZ	43	355	EP		1315	21.06	0.05							1.0
BHL	BN	43	355	ES		1315	26.16	0.01							1.0
HWQ	SZ	88	15	EP		1315	28.09	-0.10							1.0

November 10 2013 Hour: 13:31 52.1 Lat: 33.79N Lon: 35.77E

Depth: 6 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	320	EP		1331	54.94	-0.09	47						1.0
BHL	BN	17	320	ES		1331	57.25	0.03							1.0
DQRL	SZ	21	244	EP		1331	55.65	0.03							1.0
RCY	SZ	33	169	EP		1331	57.54	-0.00							1.0
RCY	SE	33	169	ES		1332	1.59	-0.00							1.0
HWQ	SZ	57	17	EP		1332	1.33	0.03							1.0

November 10 2013 Hour: 13:53 11.0 Lat: 33.47N Lon: 35.70E

Depth: 0 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	9	351	EP		1353	12.38	-0.07	37						1.0
QRWL	SN	9	351	ES		1353	13.55	0.03							1.0
RCY	SZ	13	76	EP		1353	13.15	0.01							1.0
SHBL	BZ	14	162	EP		1353	13.26	0.01							1.0
SHBL	BN	14	162	ES		1353	14.93	-0.00							1.0
DQRL	SZ	29	336	EP		1353	15.68	0.03							1.0

November 11 2013 Hour: 0:14 14.6 Lat: 33.81N Lon: 35.78E

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	15	312	EP		014	17.39	-0.02	45						1.0
BHL	BN	15	312	ES		014	19.52	0.01							1.0
HWQ	SZ	54	17	EP		014	23.35	-0.06							1.0
HWQ	SE	54	17	ES		014	30.00	0.05							1.0

November 11 2013 Hour: 10:23 18.6 Lat: 33.90N Lon: 35.81E Depth: 4 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	15	274	EP		1023	21.15	-0.00	44						1.0
BHL	BN	15	274	ES		1023	23.00	-0.01							1.0
RCY	SZ	44	177	EP		1023	25.85	0.01							1.0
RCY	SN	44	177	ES		1023	31.16	-0.00							1.0
HWQ	SZ	44	16	EP		1023	25.86	0.00							1.0

November 11 2013 Hour: 15: 6 43.4 Lat: 33.77N Lon: 35.70E 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	16	344	EP		15 6	46.95	-0.02	37						1.0
BHL	BN	16	344	ES		15 6	49.59	0.00							1.0
QRWL	SZ	25	184	EP		15 6	48.06	-0.00							1.0
QRWL	SE	25	184	ES		15 6	51.51	0.02							1.0
RCY	SZ	33	158	EP		15 6	49.22	-0.02							1.0
HWQ	SZ	61	22	EP		15 6	53.41	0.02							1.0

November 12 2013 Hour: 7: 3 51.0 Agency: REL Distant  
EMSC OT=07:03:51.0 54.81N 162.09E 50Km M=6.4 COAST OF KAMCHATKA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		715	55.28								
BHL	BZ			EP		715	57.76								
BEYL	BZ			EP		715	57.95								
RCY	SZ			EP		715	59.66								
QRWL	SZ			EP		715	59.79								
SHBL	BZ			EP		716	0.49								

November 12 2013 Hour: 11:21 3.5 Lat: 33.45N Lon: 35.57E Depth: 15 Agency: REL Local  
Magnitudes: 2.7MC 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	15	45	EP		1121	7.06	0.01							1.0
QRWL	SN	15	45	ES		1121	9.63	-0.01							1.0
SHBL	BZ	20	125	EP		1121	7.67	-0.01							1.0
RCY	SZ	25	78	EP		1121	8.38	0.00	39						1.0
RCY	SN	25	78	ES		1121	11.96	0.00							1.0

November 12 2013 Hour: 14:47 46.9 Lat: 33.78N Lon: 35.79E Depth: 5 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	18	318	EP		1447	50.01	-0.04	35						1.0
BHL	BN	18	318	ES		1447	52.38	0.02							1.0
DQRL	SZ	22	247	EP		1447	50.60	-0.00							1.0
RCY	SZ	32	172	EP		1447	52.26	0.04							1.0
RCY	SN	32	172	ES		1447	56.10	-0.03							1.0
HWQ	SZ	57	15	EP		1447	56.16	-0.00							1.0

November 12 2013 Hour: 15:44 2.8 Lat: 33.78N Lon: 35.77E Depth: 2 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	17	321	EP		1544	5.54	-0.09	38						1.0
BHL	BN	17	321	ES		1544	7.77	0.04							1.0
DQRL	SZ	21	245	EP		1544	6.19	0.03							1.0
DQRL	SN	21	245	ES		1544	8.66	0.00							1.0
RCY	SZ	32	170	EP		1544	8.00	-0.04							1.0
RCY	SN	32	170	ES		1544	11.93	0.01							1.0
SHBL	BZ	48	183	EP		1544	10.63	0.02							1.0

HWQ SZ 57 16 EP 1544 12.07 0.04 1.0

**November 13 2013 Hour: 1:4 10.1 Lat: 32.92N Lon: 35.61E Depth: 0 Agency: REL Regional**  
**Magnitudes: 2.7MC 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	68	18	EP		1 4	21.07	0.06	37						1.0
RCY	SN	68	18	ES		1 4	29.10	0.02							1.0
QRWL	SZ	70	6	EP		1 4	21.33	-0.09							1.0
QRWL	SN	70	6	ES		1 4	29.74	-0.06							1.0
DQRL	SZ	87	358	EP		1 4	24.28	0.08							1.0
DQRL	SN	87	358	ES		1 4	34.69	0.05							1.0
BHL	BZ	109	2	EP		1 4	27.71	-0.05							1.0
HWQ	SZ	154	12	EP		1 4	34.68	0.00							1.0

**November 13 2013 Hour: 7:13 51.0 Agency: REL Regional**

**EMSC OT=07:13:51.0 34.86N 27.85E 10Km M=4.4 EASTERN MED SEA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		715	30.53								
RCY	SZ			EP		715	29.11								

**November 13 2013 Hour: 11:39 24.8 Lat: 33.46N Lon: 35.58E Depth: 13 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
QRWL	SZ	14	42	EP		1139	28.06	-0.01	25						1.0
QRWL	SN	14	42	ES		1139	30.48	-0.00							1.0
SHBL	BZ	19	128	EP		1139	28.76	-0.01							1.0
SHBL	BE	19	128	ES		1139	31.70	0.01							1.0
RCY	SZ	24	79	EP		1139	29.40	0.01							1.0
DQRL	SZ	28	358	EP		1139	29.91	0.01							1.0

**November 13 2013 Hour: 14:50 47.4 Lat: 34.06N Lon: 35.67E Depth: 3 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	17	185	EP		1450	50.21	-0.06	46						1.0
BHL	BN	17	185	ES		1450	52.41	0.03							1.0
HWQ	SZ	35	46	EP		1450	53.16	0.01							1.0
HWQ	SE	35	46	ES		1450	57.39	-0.00							1.0
DQRL	SZ	40	194	EP		1450	53.96	0.03							1.0
RCY	SZ	64	166	EP		1450	57.77	-0.01							1.0

**November 13 2013 Hour: 14:56 12.0 Lat: 33.81N Lon: 35.76E Depth: 26 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	14	316	EP		1456	16.66	-0.01	29						1.0
DQRL	SZ	21	235	EP		1456	17.27	-0.01							1.0
DQRL	SN	21	235	ES		1456	21.22	0.01							1.0
RCY	SZ	36	168	EP		1456	18.98	0.01							1.0
RCY	SN	36	168	ES		1456	24.14	-0.01							1.0
HWQ	SZ	54	19	EP		1456	21.36	0.01							1.0

**November 14 2013 Hour: 16:50 0.0 Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		1651	5.93								
RCY	SZ			EP		1651	8.13								

November 15 2013 Hour: 2:035.5

Agency: REL Distant

EMSC OT=02:00:35.0 41.51N 142.15E 52Km M=5.5 HOKKAIDO

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		212	33.42								
RCY	SZ			EP		212	34.03								
DQRL	SZ			EP		212	34.81								

November 15 2013 Hour: 4:38 3.8 Lat: 33.59N Lon: 35.41E Depth: 21 Agency: REL Local  
Magnitudes: 2.9MC 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	20	49	EP		438	8.50	0.04	50						1.0
DQRL	SN	20	49	ES		438	11.92	0.00							1.0
QRWL	SZ	26	101	EP		438	9.07	-0.06							1.0
RCY	SZ	41	105	EP		438	11.18	0.06							1.0
RCY	SN	41	105	ES		438	16.52	-0.01							1.0
BHL	BZ	41	33	EP		438	11.12	-0.04							1.0
BHL	BN	41	33	ES		438	16.61	0.01							1.0
HWQ	SZ	91	33	EP		438	18.22	-0.02							0.2

November 15 2013 Hour: 9:52 13.3 Lat: 33.28N Lon: 35.77E Depth: 6 Agency: REL Local  
Magnitudes: 2.7MC 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	8	341	EP		952	15.13	-0.00	42						1.0
SHBL	BN	8	341	ES		952	16.49	0.01							1.0
RCY	SZ	25	14	EP		952	17.49	-0.00							1.0
RCY	SN	25	14	ES		952	20.59	-0.00							1.0
QRWL	SZ	31	344	EP		952	18.41	-0.01							1.0
QRWL	SN	31	344	ES		952	22.21	-0.00							1.0
DQRL	SZ	51	338	EP		952	21.57	-0.02							0.2
BHL	BZ	70	351	EP		952	24.70	0.02							0.2
HWQ	SZ	112	8	EP		952	31.47	0.21							0.2

November 15 2013 Hour: 13:26 22.8 Lat: 33.80N Lon: 35.76E Depth: 15 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	15	319	EP		1326	26.31	0.01	36						1.0
BHL	BN	15	319	ES		1326	28.86	-0.01							1.0
DQRL	SZ	21	238	EP		1326	26.99	-0.00							1.0
DQRL	SN	21	238	ES		1326	30.08	0.01							1.0
RCY	SZ	35	168	EP		1326	29.00	-0.00							1.0
HWQ	SZ	55	18	EP		1326	31.98	0.00							1.0

November 16 2013 Hour: 12:14 19.5 Lat: 33.82N Lon: 35.77E Depth: 17 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	14	312	EP		1214	23.29	0.02	35						1.0
BHL	BE	14	312	ES		1214	26.05	-0.01							1.0
DQRL	SZ	22	236	EP		1214	24.09	-0.02							1.0
DQRL	SN	22	236	ES		1214	27.54	0.02							1.0
RCY	SZ	36	170	EP		1214	25.96	-0.00							1.0
HWQ	SZ	54	18	EP		1214	28.47	0.00							1.0

November 16 2013 Hour: 13:6 2.1 Lat: 33.45N Lon: 35.64E Depth: 3 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	19	EP		13	6	4.10	-0.00						1.0
SHBL	BZ	15	140	EP		13	6	4.62	-0.02						1.0
SHBL	BE	15	140	ES		13	6	6.49	0.01						1.0

RCY	SZ	19	74	EP		13	6	5.27	0.01	26							1.0
RCY	SN	19	74	ES		13	6	7.55	-0.01								1.0
DQRL	SZ	29	347	EP		13	6	6.96	0.07								0.2

**November 16 2013 Hour: 19:17 28.4 Lat: 33.79N Lon: 35.78E Depth: 10 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	17	317	EP		1917	31.65	0.01	38						1.0
DQRL	SZ	22	243	EP		1917	32.35	0.05							1.0
DQRL	SN	22	243	ES		1917	35.19	-0.04							1.0
QRWL	SZ	29	198	EP		1917	33.31	-0.04							1.0
QRWL	SN	29	198	ES		1917	37.08	0.03							1.0
RCY	SZ	33	171	EP		1917	34.08	-0.01							1.0
HWQ	SZ	56	16	EP		1917	37.57	-0.00							1.0

**November 18 2013 Hour: 4:32 18.3 Lat: 33.97N Lon: 35.77E Depth: 4 Agency: REL Local**  
**Magnitudes: 2.4MC REL Rms: 0.0 secs**

**KESROUANE**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	13	237	EP		432	20.52	-0.04	27						1.0
BHL	BN	13	237	ES		432	22.27	0.01							1.0
DQRL	SZ	35	213	EP		432	23.85	-0.08							1.0
DQRL	SN	35	213	ES		432	28.19	0.08							1.0
HWQ	SZ	38	25	EP		432	24.50	0.04							1.0

**November 18 2013 Hour: 22:23 28.0 Agency: REL Distant**  
**EMSC OT=22:23:28.0 30.49S 179.32W 340Km M=5.0 KERMADEC ISLANDS**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ			EP		2242	40.56								
BHL	BZ			EP		2242	40.70								
DQRL	SZ			EP		2242	41.09								

**November 19 2013 Hour: 2:40 9.9 Lat: 33.57N Lon: 35.83E Depth: 10 Agency: REL Local**  
**Magnitudes: 2.6MC 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	8	178	EP		240	12.10	-0.02	36						1.0
RCY	SN	8	178	ES		240	13.76	0.01							1.0
QRWL	SZ	14	262	EP		240	12.81	0.03							1.0
QRWL	SN	14	262	ES		240	14.90	-0.01							1.0
DQRL	SZ	29	303	EP		240	14.88	-0.01							1.0
BHL	BZ	41	336	EP		240	16.77	0.01							1.0
HWQ	SZ	80	8	EP		240	22.89	-0.00							1.0

**November 19 2013 Hour: 12:34 48.2 Lat: 33.47N Lon: 35.68E Depth: 4 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	3	EP		1234	49.73	-0.04							1.0
RCY	SZ	15	80	EP		1234	50.79	0.02	36						1.0
SHBL	BZ	15	156	EP		1234	50.81	-0.01							1.0
SHBL	BN	15	156	ES		1234	52.81	0.02							1.0
DQRL	SZ	28	339	EP		1234	52.68	-0.02							1.0
DQRL	SN	28	339	ES		1234	56.11	0.05							1.0

**November 19 2013 Hour: 14:55 29.3 Lat: 33.79N Lon: 35.78E Depth: 0 Agency: REL Local**  
**Magnitudes: 2.3MC 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	318	EP		1455	32.10	-0.02	23						1.0
DQRL	SZ	21	244	EP		1455	32.79	-0.01							1.0
DQRL	SN	21	244	ES		1455	35.38	0.02							1.0
RCY	SZ	33	171	EP		1455	34.65	-0.01							1.0

RCY	SN	33	171	ES		1455	38.60	0.00											1.0
HWQ	SZ	56	16	EP		1455	38.47	0.02											1.0

**November 20 2013 Hour: 13:424.3 Lat: 33.47N Lon: 35.70E Depth: 0 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	347	EP		13	4	25.54-0.06							1.0
RCY	SZ	13	79	EP		13	4	26.29-0.02	33						1.0
SHBL	BZ	15	164	EP		13	4	26.59-0.02							1.0
SHBL	BN	15	164	ES		13	4	28.37 0.02							1.0
DQRL	SZ	28	335	EP		13	4	28.89 0.05							1.0
DQRL	SN	28	335	ES		13	4	32.21-0.02							1.0
HWQ	SZ	92	14	EP		13	4	39.15 0.06							1.0

**November 21 2013 Hour: 14:1543.5 Lat: 33.55N Lon: 35.72E Depth: 0 Agency: REL Local**  
**Magnitudes: 2.4MC 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	266	EP		1415		43.92-0.07							1.0
RCY	SZ	13	118	EP		1415		45.47-0.04	27						1.0
RCY	SN	13	118	ES		1415		47.02-0.00							1.0
DQRL	SZ	22	322	EP		1415		47.06 0.05							1.0
SHBL	BZ	23	173	EP		1415		47.15 0.05							1.0
SHBL	BN	23	173	ES		1415		49.79 0.01							1.0

**November 21 2013 Hour: 15:338.6 Lat: 33.99N Lon: 36.12E Depth: 18 Agency: REL Local**  
**Magnitudes: 2.9MC REL Rms: 0.0 secs**

**CENTRAL BEKAA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	36	334	EP		1533		15.00-0.04	49						1.0
HWQ	BN	36	334	ES		1533		19.86 0.03							1.0
BHL	BZ	44	258	EP		1533		16.12 0.01							1.0
DQRL	SZ	59	239	EP		1533		18.38 0.02							1.0
DQRL	SN	59	239	ES		1533		25.58-0.02							1.0
RCY	SZ	60	206	EP		1533		18.47-0.04							1.0
SHBL	BZ	79	206	EP		1533		21.26 0.05							1.0
SHBL	BN	79	206	ES		1533		30.57 0.00							1.0

**November 21 2013 Hour: 17:320.2 Lat: 33.81N Lon: 35.76E Depth: 18 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	14	318	EP		17	3	24.02-0.01	30						1.0
BHL	BN	14	318	ES		17	3	26.82-0.00							1.0
DQRL	SZ	21	236	EP		17	3	24.70-0.02							1.0
DQRL	SN	21	236	ES		17	3	28.04 0.02							1.0
RCY	SZ	35	168	EP		17	3	26.64-0.00							1.0
HWQ	SZ	55	19	EP		17	3	29.39 0.01							1.0

**November 22 2013 Hour: 4:395.6 Lat: 33.61N Lon: 34.78E Depth: 10 Agency: REL Local**  
**Magnitudes: 3.4MC REL Rms: 0.2 secs**

**OFFSHORE SOUTH LEBANON**

**Earthquake was felt**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	BZ	73	66	EP		439		17.34-0.12							1.0
BEYL	BN	73	66	ES		439		26.16-0.05							1.0
DQRL	SZ	74	81	EP		439		17.90 0.12	99						1.0
DQRL	SN	74	81	ES		439		27.02 0.24							1.0
QRWL	SZ	84	94	EP		439		19.46 0.23							1.0
QRWL	SN	84	94	ES		439		29.29-0.01							1.0
BHL	BZ	88	68	EP		439		19.68-0.07							1.0
BHL	BN	88	68	ES		439		30.22 0.03							1.0
RCY	SZ	99	97	EP		439		21.41-0.03							1.0

RCY SN 99 97 ES 439 33.14 0.01 1.0  
 HWQ SZ 131 55 EP 439 25.80-0.36 1.0

**November 22 2013 Hour: 4:41 7.9 Lat: 33.62N Lon: 34.82E Depth: 11 Agency: REL Local**  
**Magnitudes: 2.9MC 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	70	82	EP		441	19.49	0.12	47						1.0
DQRL	SN	70	82	ES		441	27.90	0.08							1.0
BHL	BZ	83	68	EP		441	21.22	-0.09							1.0
BHL	BN	83	68	ES		441	31.20	-0.00							1.0
RCY	SZ	95	98	EP		441	23.13	0.03							1.0
RCY	SN	95	98	ES		441	34.26	-0.07							1.0
HWQ	SZ	127	55	EP		441	27.67	-0.07							1.0

**November 22 2013 Hour: 6:51 25.0 Agency: REL Regional**

**EMSC OT=06:51:25.0 34.32N 45.51E 10Km M=5.6 IRAN-IRAQ BORDER**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		653	21.00								
SHBL	BZ			EP		653	23.69								
BHL	BZ			EP		653	24.61								

**November 22 2013 Hour: 12:0 23.0 Agency: REL Regional**

**EMSC OT=12:00:23.0 35.36N 31.80E 25Km M=4.2 CYPRUS REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		12	1	14.60							
DQRL	SZ			EP		12	1	15.11							
HWQ	BZ			EP		12	1	16.72							
QRWL	SZ			EP		12	1	18.24							
RCY	SZ			EP		12	1	20.13							

**November 22 2013 Hour: 14:4 54.9 Lat: 33.54N Lon: 35.71E Depth: 0 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	285	EP		14	4	55.36-0.02	32						1.0
RCY	SZ	13	113	EP		14	4	56.94-0.05							1.0
RCY	SN	13	113	ES		14	4	58.55 0.03							1.0
SHBL	BZ	22	172	EP		14	4	58.45 0.02							1.0
DQRL	SZ	22	325	EP		14	4	58.52-0.01							1.0
DQRL	SN	22	325	ES		14	5	1.23 0.03							1.0

**November 22 2013 Hour: 14:27 7.3 Lat: 33.81N Lon: 35.73E Depth: 22 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	13	327	EP		1427	11.47	-0.04	50						1.0
BHL	BN	13	327	ES		1427	14.62	-0.00							1.0
DQRL	SZ	19	233	EP		1427	12.03	0.03							1.0
DQRL	SN	19	233	ES		1427	15.50	0.02							1.0
QRWL	SZ	29	189	EP		1427	13.09	-0.06							1.0
RCY	SZ	36	164	EP		1427	14.07	0.03							1.0
RCY	SN	36	164	ES		1427	19.03	0.00							1.0
HWQ	SZ	56	21	EP		1427	16.76	0.02							1.0

**November 22 2013 Hour: 15:5 13.7 Lat: 33.85N Lon: 35.78E Depth: 30 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	14	298	EP		15	5	19.03 0.00	24						1.0
BHL	BN	14	298	ES		15	5	22.93-0.01							1.0
DQRL	SZ	25	232	EP		15	5	19.95 0.00							1.0
DQRL	SN	25	232	ES		15	5	24.56 0.03							1.0
QRWL	SZ	34	196	EP		15	5	20.83-0.07							1.0



RCY	SZ	39	173	EP		15	5	21.57	0.07									1.0
RCY	SN	39	173	ES		15	5	27.22	-0.02									1.0

November 22 2013 Hour: 17:20 57.0

Agency: Distant

**EMSC OT=17:20:57.0 05.39N 92.75E 10Km M=5.6 NORTHERN SUMATRA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1731	6.02								
HWQ	BZ			EP		1731	4.90								
SHBL	BZ			EP		1731	4.54								

November 22 2013 Hour: 18:30 58.0

Agency: Regional

**EMSC OT=18:30:58.0 34.28N 45.61E 10Km M=5.7 IRAN-IRAQ BORDER**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1832	57.58								
HWQ	BZ			EP		1832	53.94								
SHBL	BZ			EP		1832	57.12								
RCY	SZ			EP		1832	56.60								
DQRL	SZ			EP		1832	59.97								

November 22 2013 Hour: 21:2 37.0

Agency: Regional

**EMSC OT=21:02:37.0 34.27N 45.64E 40Km M=4.5 IRAN-IRAQ BORDER**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		21 4	34.27								
QRWL	SZ			EP		21 4	34.12								
DQRL	SZ			EP		21 4	35.45								

November 23 2013 Hour: 7:48 32.0

Agency: Distant

**EMSC OT=07:48:32.0 17.15S 176.51W 368Km M=6.5 FIJI REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		8 7	31.67								
HWQ	BZ			EP		8 7	30.81								
SHBL	BZ			EP		8 7	32.54								

November 23 2013 Hour: 8:26 26.0 Lat: 33.05N Lon: 35.65E Depth: 13 Agency: REL Local  
Magnitudes: 2.7MC 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	34	15	EP		826	32.08	0.04							1.0
SHBL	BN	34	15	ES		826	36.49	-0.02							1.0
RCY	SZ	52	19	EP		826	34.74	0.00	37						1.0
RCY	SN	52	19	ES		826	41.18	-0.02							1.0
QRWL	SZ	55	3	EP		826	35.01	-0.10							1.0
QRWL	SN	55	3	ES		826	41.89	0.04							1.0
HWQ	SZ	139	11	EP		826	47.51	0.07							1.0

November 23 2013 Hour: 9:2 0.0

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		9 2	55.48								
SHBL	BZ			EP		9 2	52.82								

November 23 2013 Hour: 10:16 14.5 Lat: 33.41N Lon: 35.67E Depth: 10 Agency: REL Local  
Magnitudes: 2.7MC 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	135	EP		1016	16.84	-0.05							1.0
SHBL	BN	10	135	ES		1016	18.70	0.01							1.0
QRWL	SZ	15	4	EP		1016	17.37	-0.12							1.0
RCY	SZ	18	58	EP		1016	18.00	0.09	37						1.0
RCY	SN	18	58	ES		1016	20.46	-0.00							1.0
DQRL	SZ	34	344	EP		1016	20.40	0.17							1.0
DQRL	SN	34	344	ES		1016	24.46	-0.04							1.0
HWQ	SZ	100	15	EP		1016	30.29	-0.06							1.0



November 23 2013 Hour: 12:45 56.3 Lat: 33.46N Lon: 35.56E Depth: 15 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
QRWL	SZ	15	47	EP		1245	59.88	0.06	26						1.0
SHBL	BZ	21	125	EP		1246	0.52	-0.01							1.0
SHBL	BN	21	125	ES		1246	3.66	-0.01							1.0
RCY	SZ	26	80	EP		1246	1.22	0.04							1.0
RCY	SN	26	80	ES		1246	4.78	-0.03							1.0
DQRL	SZ	28	1	EP		1246	1.38	-0.05							1.0

November 23 2013 Hour: 16:7 5.0

Agency: Regional

EMSC OT=16:07:05.0 36.41N 29.44E 30Km M=3.8 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		16 8	25.27								
RCY	SZ			EP		16 8	29.49								

November 23 2013 Hour: 23:26 20.0

Agency: Regional

EMSC OT=23:26:20.0 34.09N 45.56E 10Km M=4.8 IRAN-IRAQ BORDER

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2328	21.08								
DQRL	SZ			EP		2328	22.46								
RCY	SZ			EP		2328	19.15								

November 24 2013 Hour: 3:20 29.0

Agency: Regional

EMSC OT=03:20:29.0 36.13N 45.37E 2Km M=4.2 IRAN-IRAQ BORDER

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		322	34.43								
QRWL	SZ			EP		322	33.76								
BHL	BZ			EP		322	34.39								

November 24 2013 Hour: 8:47 52.0

Agency: Distant

EMSC OT=08:47:52.0 24.31S 179.31E 508Km M=5.6 FIJI ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		9 6	38.31								
SHBL	BZ			EP		9 6	38.57								

November 24 2013 Hour: 11:10 0.0

Agency: Distant

EMSC OT=11:10:00.0 21.68S 179.30W 611Km M=5.5 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1128	36.54								
SHBL	BZ			EP		1128	37.24								

November 24 2013 Hour: 14:4 6.5 Lat: 33.47N Lon: 35.67E Depth: 2 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	9	7	EP		14 4	7.94	-0.03	36						1.0
QRWL	SN	9	7	ES		14 4	9.08	0.02							1.0
SHBL	BZ	15	154	EP		14 4	9.02	0.01							1.0
SHBL	BN	15	154	ES		14 4	10.86	-0.00							1.0
RCY	SZ	16	79	EP		14 4	9.07	0.00							1.0
DQRL	SZ	28	340	EP		14 4	11.01	0.01							1.0

November 24 2013 Hour: 18:3 11.0

Agency: Regional

EMSC OT=18:03:11.0 33.95N 45.67E 10Km M=4.7 IRAN-IRAQ BORDER

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		18 5	14.22								
DQRL	SZ			EP		18 5	14.42								
SHBL	BZ			EP		18 5	12.62								

November 25 2013 Hour: 2:53 55.4 Lat: 33.57N Lon: 36.55E Depth: 7 Agency: REL Local  
Magnitudes: 2.8MC REL Rms: 0.1 secs

**DAMASCUS REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	67	263	EP		254	6.46	0.17	44						1.0
RCY	SN	67	263	ES		254	14.23	-0.10							1.0
BHL	BZ	91	294	EP		254	10.01	-0.11							1.0
DQRL	SZ	92	279	EP		254	10.21	-0.12							1.0
DQRL	SN	92	279	ES		254	21.45	0.11							1.0
HWQ	SZ	96	325	EP		254	11.02	0.05							1.0

November 25 2013 Hour: 5:56 50.0

Agency: Distant

**EMSC OT=05:56:50.0 45.65N 151.03E 40Km M=5.9 KURIL ISLANDS**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		6 9	7.41								
BHL	BZ			EP		6 9	4.95								
HWQ	BZ			EP		6 9	2.44								

November 25 2013 Hour: 13:51 16.8 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	8	356	EP		1351	18.04	-0.06	27						1.0
RCY	SZ	14	79	EP		1351	19.08	0.07							1.0
RCY	SN	14	79	ES		1351	20.65	-0.03							1.0
SHBL	BZ	15	160	EP		1351	19.14	-0.01							1.0
SHBL	BN	15	160	ES		1351	20.92	-0.00							1.0
DQRL	SZ	28	337	EP		1351	21.33	0.04							1.0

November 25 2013 Hour: 13:57 30.7 Lat: 33.54N Lon: 35.71E Depth: 0 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	292	EP		1357	31.13	-0.07	31						1.0
RCY	SZ	13	112	EP		1357	32.72	-0.03							1.0
SHBL	BZ	21	172	EP		1357	34.14	-0.02							1.0
SHBL	BN	21	172	ES		1357	36.74	0.04							1.0
DQRL	SZ	23	325	EP		1357	34.45	0.07							1.0
DQRL	SN	23	325	ES		1357	37.10	0.01							1.0

November 26 2013 Hour: 13:17 59.3 Lat: 34.52N Lon: 35.94E Depth: 0 Agency: REL Local  
Magnitudes: 3.4MC REL Rms: 0.2 secs

**NORTH LEBANON**

Earthquake was felt

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	27	179	EP		1318	3.45	-0.21							1.0
HWQ	SN	27	179	ES		1318	6.93	0.05							1.0
BHL	BZ	74	201	EP		1318	11.12	-0.03	100						1.0
BHL	BE	74	201	ES		1318	20.07	0.15							1.0
BEYL	BZ	83	210	EP		1318	12.61	-0.11							0.2
DQRL	SZ	97	201	EP		1318	14.84	-0.08							1.0
DQRL	SE	97	201	ES		1318	26.40	-0.07							1.0
QRWL	SZ	111	193	EP		1318	17.17	0.02							1.0
QRWL	SN	111	193	ES		1318	30.23	-0.13							1.0
RCY	SZ	114	185	EP		1318	17.81	0.10							1.0
RCY	SN	114	185	ES		1318	31.31	-0.02							1.0
SHBL	BZ	131	188	EP		1318	20.49	-0.01							1.0
SHBL	BN	131	188	ES		1318	36.14	-0.04							1.0

November 26 2013 Hour: 14:12 39.5 Lat: 34.51N Lon: 35.99E Depth: 1 Agency: REL Local  
Magnitudes: 3.1MC REL Rms: 0.2 secs

**NORTH LEBANON**

**Earthquake was felt**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	27	189	EP		1412	43.61	-0.24							1.0
HWQ	SE	27	189	ES		1412	47.04	0.01							1.0
BHL	BZ	75	205	EP		1412	51.52	-0.05	67						1.0
BEYL	BZ	85	213	EP		1412	53.34	0.10							1.0
DQRL	SZ	98	204	EP		1412	55.28	-0.05							1.0
DQRL	SN	98	204	ES		1413	7.03	0.02							1.0
QRWL	SZ	111	195	EP		1412	57.62	0.17							1.0
RCY	SZ	114	187	EP		1412	58.01	0.10							1.0
RCY	SN	114	187	ES		1413	11.46	-0.04							1.0
SHBL	BZ	131	190	EP		1413	0.94	0.21							1.0

November 27 2013 Hour: 5:42 0.0

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		542	43.46								
RCY	SZ			EP		542	58.67								

November 27 2013 Hour: 14:44 17.5 Lat: 33.79N Lon: 35.78E Depth: 9 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	17	317	EP		1444	20.70	-0.01	29						1.0
DQRL	SZ	22	243	EP		1444	21.37	-0.01							1.0
DQRL	SN	22	243	ES		1444	24.26	0.01							1.0
RCY	SZ	33	171	EP		1444	23.18	0.00							1.0
RCY	SE	33	171	ES		1444	27.38	-0.00							1.0
HWQ	SZ	56	16	EP		1444	26.70	0.01							1.0

November 27 2013 Hour: 20:42 0.0

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		2043	29.52								
RCY	SZ			EP		2043	26.53								

November 28 2013 Hour: 13:51 35.0

Agency: Distant

**EMSC OT=13:51:35.0 29.31N 51.33E 10Km M=5.6 SOUTHERN IRAN**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1354	56.51								
HWQ	BZ			EP		1354	55.25								
RCY	SZ			EP		1354	51.14								

November 28 2013 Hour: 14:58 54.7 Lat: 33.79N Lon: 35.77E 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	17	320	EP		1458	58.21	-0.02	31						1.0
BHL	BN	17	320	ES		1459	0.87	0.01							1.0
DQRL	SZ	21	244	EP		1458	58.72	0.00							1.0
RCY	SZ	33	169	EP		1459	0.50	0.02							1.0
RCY	SE	33	169	ES		1459	4.77	-0.01							1.0
HWQ	SZ	57	17	EP		1459	4.08	0.00							1.0

November 29 2013 Hour: 11:42 25.5 Lat: 33.42N Lon: 35.68E Depth: 6 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	143	EP		1142	27.53	0.00							1.0
SHBL	BE	10	143	ES		1142	29.04	0.01							1.0
QRWL	SZ	14	0	EP		1142	28.09	-0.02	32						1.0
QRWL	SN	14	0	ES		1142	30.03	-0.01							1.0

RCY	SZ	17	59	EP		1142	28.49	-0.01									1.0
RCY	SN	17	59	ES		1142	30.72	0.00									1.0
DQRL	SZ	34	342	EP		1142	31.05	0.02									1.0

**November 29 2013 Hour: 12:21 37.4 Lat: 32.92N Lon: 35.55E Depth: 3 Agency: REL Regional**  
**Magnitudes: 3.0MC REL Rms: 0.0 secs**

**NORTH GALILEE**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	51	21	EP		1221	45.65	0.02							1.0
SHBL	BN	51	21	ES		1221	51.66	-0.08							1.0
RCY	SZ	69	22	EP		1221	48.58	-0.01	59						1.0
RCY	SN	69	22	ES		1221	56.96	0.07							1.0
DQRL	SZ	87	1	EP		1221	51.48	0.00							1.0
DQRL	SE	87	1	ES		1222	1.92	0.01							1.0
HWQ	SZ	155	14	EP		1222	1.92	-0.01							1.0

**November 29 2013 Hour: 14:24 56.9 Lat: 34.06N Lon: 35.69E Depth: 9 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	17	192	EP		1425	0.16	-0.00	43						1.0
BHL	BN	17	192	ES		1425	2.59	-0.01							1.0
HWQ	SZ	34	44	EP		1425	2.57	-0.01							1.0
HWQ	SE	34	44	ES		1425	6.82	0.01							1.0
DQRL	SZ	41	196	EP		1425	3.68	0.02							1.0
QRWL	SZ	57	181	EP		1425	6.18	0.02							1.0
RCY	SZ	64	168	EP		1425	7.23	-0.06							1.0
RCY	SN	64	168	ES		1425	15.01	0.02							1.0

**November 30 2013 Hour: 13:44 49.3 Lat: 33.81N Lon: 35.75E Depth: 21 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	14	320	EP		1344	53.35	-0.04	35						1.0
BHL	BE	14	320	ES		1344	56.42	0.01							1.0
DQRL	SZ	20	236	EP		1344	53.98	-0.01							1.0
DQRL	SN	20	236	ES		1344	57.49	0.02							1.0
RCY	SZ	35	167	EP		1344	55.87	0.01							1.0
RCY	SE	35	167	ES		1345	0.71	-0.01							1.0
HWQ	SZ	55	19	EP		1344	58.57	0.02							1.0

**November 30 2013 Hour: 15:30 2.3 Lat: 33.79N Lon: 35.78E Depth: 4 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	17	318	EP		1530	5.06	-0.02	27						1.0
BHL	BE	17	318	ES		1530	7.17	-0.00							1.0
DQRL	SZ	21	243	EP		1530	5.76	-0.01							1.0
DQRL	SE	21	243	ES		1530	8.40	0.02							1.0
RCY	SZ	33	170	EP		1530	7.67	-0.02							1.0
RCY	SE	33	170	ES		1530	11.71	0.01							1.0
HWQ	SZ	56	16	EP		1530	11.39	0.02							1.0

# Epicentral Map of Lebanon

## NOVEMBER 2013

