

Republic of Lebanon  
National Council for Scientific Research

# Provisional Seismological Bulletin

from the

## NATIONAL SEISMIC NETWORK

March

2013

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	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.

March 1 2013 Hour: 1:31 6.6 Lat: 35.09N Lon: 36.47E Depth: 3 Agency: REL Local  
Magnitudes: 3.2MC REL Rms: 0.0 secs

SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	102	208	EP		131	23.05	0.03	68						1.0
HWQ	SN	102	208	ES		131	35.18	-0.02							1.0
BHL	BZ	151	210	EP		131	30.48	-0.04							1.0
BHL	BN	151	210	ES		131	48.27	0.02							1.0
DQRL	SZ	174	209	EP		131	33.96	0.06							1.0
DQRL	SE	174	209	ES		131	54.10	-0.04							1.0
RCY	SZ	186	198	EP		131	35.46	-0.06							1.0
RCY	SE	186	198	ES		131	56.98	0.03							1.0

March 1 2013 Hour: 2:29 22.4 Lat: 33.47N Lon: 35.52E Depth: 0 Agency: REL Local  
Magnitudes: 2.2MC 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	17	61	EP		229	25.13	-0.03							1.0
QRWL	SE	17	61	ES		229	27.19	-0.04							1.0
DQRL	SZ	26	11	EP		229	26.64	0.04							1.0
RCY	SZ	30	85	EP		229	27.10	-0.04	19						1.0
RCY	SN	30	85	ES		229	30.75	0.07							1.0

March 1 2013 Hour: 12:53 54.0 Agency: REL Distant

EMSC OT=12:53:54.0 50.97N 157.56E 56Km ML=6.3 KURIL ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		13 6	3.77								
RCY	SZ			EP		13 6	5.20								
QRWL	SZ			EP		13 6	5.46								

March 1 2013 Hour: 13:20 52.0 Agency: REL Distant

EMSC OT=13:20:52.0 50.92N 157.53E 50Km ML=6.5 KURIL ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1333	3.30								
DQRL	SZ			EP		1333	4.48								
RCY	SZ			EP		1333	4.74								
QRWL	SZ			EP		1333	4.74								
SHBL	BZ			EP		1333	5.92								

March 1 2013 Hour: 18:56 51.1 Lat: 33.75N Lon: 35.83E Depth: 15 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
BHL	BZ	23	316	EP		1856	55.68	-0.00							1.0
DQRL	SZ	25	258	EP		1856	55.87	0.02							1.0
DQRL	SN	25	258	ES		1856	59.35	-0.01							1.0
QRWL	SZ	27	211	EP		1856	56.09	-0.01							1.0
RCY	SZ	29	179	EP		1856	56.39	-0.00	27						1.0
RCY	SE	29	179	ES		1857	0.31	0.01							1.0

March 2 2013 Hour: 5:3 59.1 Lat: 33.80N Lon: 35.78E Depth: 19 Agency: REL Local  
Magnitudes: 3.0MC 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	315	EP		5 4	3.12	-0.03							1.0
BHL	BN	16	315	ES		5 4	6.14	0.01							1.0
DQRL	SZ	22	240	EP		5 4	3.78	-0.01	57						1.0
DQRL	SE	22	240	ES		5 4	7.26	0.01							1.0
QRWL	SZ	30	197	EP		5 4	4.72	-0.02							1.0
QRWL	SN	30	197	ES		5 4	8.95	0.05							1.0
RCY	SZ	35	171	EP		5 4	5.44	0.01							1.0
RCY	SN	35	171	ES		5 4	10.07	-0.03							1.0
HWQ	SZ	55	17	EP		5 4	8.31	0.02							1.0

March 2 2013 Hour: 12:38 55.0 Lat: 33.45N Lon: 35.63E 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	12	23	EP		1238	56.83	-0.04							1.0
SHBL	BZ	15	138	EP		1238	57.46	-0.03							1.0
SHBL	BN	15	138	ES		1238	59.34	0.01							1.0
RCY	SZ	20	75	EP		1238	58.18	0.04	33						1.0
RCY	SE	20	75	ES		1239	0.47	-0.00							1.0
DQRL	SZ	29	348	EP		1238	59.67	0.03							1.0

March 3 2013 Hour: 11:22 25.2 Lat: 35.99N Lon: 34.45E Depth: 6 Agency: REL Regional  
Magnitudes: 3.8MC REL Rms: 0.1 secs

**CYPRUS REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	234	144	EP		1122	59.78	0.05	148						1.0
HWQ	SN	234	144	ES		1123	25.06	-0.21							1.0
BHL	BZ	256	154	EP		1123	2.36	-0.15							1.0
DQRL	SZ	274	158	EP		1123	4.62	-0.02							1.0
DQRL	SN	274	158	ES		1123	33.88	0.08							1.0
RCY	SZ	304	155	EP		1123	8.57	0.05							1.0
SHBL	BZ	316	158	EP		1123	10.19	0.19							1.0
SHBL	BN	316	158	ES		1123	43.21	0.08							1.0

March 3 2013 Hour: 15:42 58.8 Lat: 33.80N Lon: 35.76E Depth: 14 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	318	EP		1543	2.29	-0.01	31						1.0
BHL	BE	15	318	ES		1543	4.88	0.00							1.0
DQRL	SZ	21	239	EP		1543	3.01	0.00							1.0
DQRL	SE	21	239	ES		1543	6.11	0.01							1.0
RCY	SZ	35	169	EP		1543	4.92	-0.01							1.0
RCY	SN	35	169	ES		1543	9.46	0.01							1.0
HWQ	SZ	55	18	EP		1543	7.98	0.01							1.0

March 3 2013 Hour: 15:57 53.3 Lat: 34.05N Lon: 35.70E Depth: 27 Agency: REL Local  
Magnitudes: 2.7MC 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	195	EP		1557	58.36	-0.05	38						1.0
BHL	BN	17	195	ES		1558	2.21	0.01							1.0
HWQ	SZ	34	42	EP		1558	0.11	0.01							1.0
HWQ	SN	34	42	ES		1558	5.14	0.00							1.0
DQRL	SZ	40	198	EP		1558	0.95	0.05							1.0
RCY	SZ	63	169	EP		1558	3.90	-0.03							1.0
RCY	SE	63	169	ES		1558	11.82	0.01							1.0

March 5 2013 Hour: 1:19 23.3 Lat: 33.79N Lon: 35.80E 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	19	313	EP		119	26.74	-0.00	31						1.0
DQRL	SZ	23	247	EP		119	27.40	-0.01							1.0
DQRL	SN	23	247	ES		119	30.47	0.01							1.0
RCY	SZ	33	175	EP		119	28.81	0.01							1.0
RCY	SE	33	175	ES		119	32.89	-0.00							1.0
HWQ	SZ	56	14	EP		119	32.46	0.00							1.0

March 6 2013 Hour: 3:43 24.5 Lat: 34.56N Lon: 36.26E Depth: 3 Agency: REL Local  
Magnitudes: 2.9MC REL Rms: 0.1 secs

AKKAR

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	43	223	EP		343	31.44	-0.07	53						1.0
HWQ	SE	43	223	ES		343	36.67	0.00							1.0
BHL	BZ	92	218	EP		343	39.38	-0.04							1.0
DQRL	SZ	115	214	EP		343	43.18	0.15							1.0
RCY	SZ	125	199	EP		343	44.55	-0.03							1.0
RCY	SN	125	199	ES		343	59.39	-0.01							1.0

March 6 2013 Hour: 7:20 58.4 Lat: 33.81N Lon: 35.76E Depth: 18 Agency: REL Local  
Magnitudes: 2.2MC 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		721	2.20	-0.00	19						1.0
BHL	BN	14	316	ES		721	5.03	0.00							1.0
DQRL	SZ	21	237	EP		721	2.92	0.00							1.0
DQRL	SN	21	237	ES		721	6.27	-0.00							1.0
RCY	SZ	36	169	EP		721	4.79	-0.00							1.0

March 6 2013 Hour: 14:44 52.3 Lat: 33.88N Lon: 35.84E Depth: 13 Agency: REL Local  
Magnitudes: 3.0MC 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	277	EP		1444	55.94	0.04	57						1.0
BHL	BN	17	277	ES		1444	58.55	-0.00							1.0
DQRL	SZ	32	232	EP		1444	57.92	0.00							1.0
DQRL	SN	32	232	ES		1445	2.00	-0.06							1.0
QRWL	SZ	40	201	EP		1444	59.17	0.02							1.0
QRWL	SE	40	201	ES		1445	4.29	0.08							1.0
RCY	SZ	43	180	EP		1444	59.59	-0.04							1.0
RCY	SE	43	180	ES		1445	5.02	-0.02							1.0
HWQ	SZ	45	13	EP		1444	59.89	-0.01							1.0

March 6 2013 Hour: 15: 8 0.0 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ			EP		15 8	40.90								
RCY	SZ			EP		15 8	42.56								

March 6 2013 Hour: 16:21 8.9 Lat: 33.82N Lon: 35.73E 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	324	EP		1621	13.45	0.03	37						1.0
BHL	BE	12	324	ES		1621	16.71	-0.02							1.0
DQRL	SZ	19	229	EP		1621	14.04	0.04							1.0
DQRL	SE	19	229	ES		1621	17.73	-0.02							1.0
QRWL	SZ	30	188	EP		1621	15.08	-0.08							1.0
QRWL	SE	30	188	ES		1621	19.81	0.04							1.0
RCY	SZ	37	164	EP		1621	16.04	0.01							1.0

March 7 2013 Hour: 7:31 36.0 Lat: 33.87N Lon: 35.83E 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	284	EP		731	38.72	-0.08	58						1.0
DQRL	SZ	30	234	EP		731	40.97	0.08	61						1.0
DQRL	SE	30	234	ES		731	44.45	-0.05							1.0
RCY	SZ	41	180	EP		731	42.55	-0.07							1.0
RCY	SE	41	180	ES		731	47.59	0.08							1.0
HWQ	SZ	47	13	EP		731	43.58	0.00							1.0
SHBL	BZ	58	188	EP		731	45.32	-0.05							1.0

SHBL BE 58 188 ES 731 52.25-0.04 1.0

**March 7 2013 Hour: 11:30 39.8 Lat: 33.45N Lon: 35.58E Depth: 15 Agency: REL Local**  
**Magnitudes: 2.6MC REL Rms: 0.0 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	15	42	EP		1130	43.30	0.02							1.0
SHBL	BZ	19	126	EP		1130	43.91	0.04							1.0
SHBL	BN	19	126	ES		1130	46.82	-0.06							1.0
RCY	SZ	25	78	EP		1130	44.60	0.05	32						1.0
RCY	SE	25	78	ES		1130	48.06	0.00							1.0
HWQ	SZ	98	20	EP		1130	55.17	-0.05							1.0

**March 7 2013 Hour: 12:30 13.8 Lat: 33.32N Lon: 35.61E Depth: 27 Agency: REL Local**  
**Magnitudes: 2.5MC REL Rms: 0.1 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	13	75	EP		1230	18.71	-0.07							1.0
SHBL	BE	13	75	ES		1230	22.49	0.04							1.0
QRWL	SZ	26	15	EP		1230	19.85	0.00							1.0
RCY	SZ	29	47	EP		1230	20.25	0.07	31						1.0
RCY	SN	29	47	ES		1230	24.84	-0.04							1.0
DQRL	SZ	43	355	EP		1230	21.79	-0.03							0.2

**March 7 2013 Hour: 17:11 21.8 Lat: 33.52N Lon: 35.54E Depth: 16 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	78	EP		1711	25.34	0.00							1.0
SHBL	BZ	27	135	EP		1711	26.96	-0.04							1.0
SHBL	BE	27	135	ES		1711	30.87	0.02							1.0
RCY	SZ	28	96	EP		1711	27.11	0.04	25						1.0
RCY	SE	28	96	ES		1711	30.95	-0.02							1.0

**March 8 2013 Hour: 12:48 29.4 Lat: 33.34N Lon: 35.60E Depth: 22 Agency: REL Local**  
**Magnitudes: 2.5MC REL Rms: 0.1 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	13	85	EP		1248	33.61	-0.09							1.0
SHBL	BE	13	85	ES		1248	36.93	0.05							1.0
QRWL	SZ	24	17	EP		1248	34.70	-0.00							1.0
RCY	SZ	28	51	EP		1248	35.23	0.09	30						1.0
RCY	SE	28	51	ES		1248	39.35	-0.05							1.0

**March 9 2013 Hour: 12:22 5.9 Lat: 33.31N Lon: 35.64E Depth: 26 Agency: REL Local**  
**Magnitudes: 2.6MC REL Rms: 0.1 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	11	65	EP		1222	10.43	-0.08							1.0
SHBL	BE	11	65	ES		1222	13.98	0.06							1.0
QRWL	SZ	27	8	EP		1222	11.77	-0.06							1.0
RCY	SZ	28	41	EP		1222	12.07	0.09	32						1.0
RCY	SE	28	41	ES		1222	16.43	-0.05							1.0
DQRL	SZ	45	352	EP		1222	14.02	0.04							1.0

**March 9 2013 Hour: 12:53 6.2 Lat: 33.79N Lon: 35.77E Depth: 0 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	321	EP		1253	8.84	-0.06	27						1.0
BHL	BN	17	321	ES		1253	10.92	0.01							1.0
DQRL	SZ	20	244	EP		1253	9.44	-0.03							1.0
DQRL	SN	20	244	ES		1253	11.94	0.04							1.0
RCY	SZ	33	169	EP		1253	11.46	-0.01							1.0



HWQ SZ 57 17 EP 1253 15.43 0.05 1.0

**March 9 2013 Hour: 14:21 24.8 Lat: 33.46N Lon: 35.56E Depth: 14 Agency: REL Local**  
**Magnitudes: 2.5MC 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	49	EP		1421	28.33	0.06							1.0
QRWL	SN	15	49	ES		1421	30.76	-0.04							1.0
SHBL	BZ	21	127	EP		1421	29.02	-0.06							1.0
SHBL	BN	21	127	ES		1421	32.26	0.04							1.0
RCY	SZ	26	81	EP		1421	29.70	-0.00	28						1.0

**March 9 2013 Hour: 15:13 50.7 Lat: 33.50N Lon: 35.69E 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	5	353	EP		1513	51.45	-0.06							1.0
QRWL	SE	5	353	ES		1513	52.14	0.00							1.0
RCY	SZ	14	92	EP		1513	52.89	0.02	22						1.0
DQRL	SZ	25	334	EP		1513	54.73	0.00							1.0
DQRL	SN	25	334	ES		1513	57.77	0.03							1.0

**March 9 2013 Hour: 15:16 13.7 Lat: 33.78N Lon: 35.78E Depth: 1 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	319	EP		1516	16.49	-0.09	49						1.0
BHL	BN	18	319	ES		1516	18.78	0.03							1.0
DQRL	SZ	21	247	EP		1516	17.17	0.03							1.0
DQRL	SN	21	247	ES		1516	19.73	0.01							1.0
QRWL	SZ	28	200	EP		1516	18.08	-0.06							1.0
BEYL	BZ	29	290	EP		1516	18.26	-0.01							1.0
RCY	SZ	32	171	EP		1516	18.82	-0.04							1.0
RCY	SN	32	171	ES		1516	22.72	0.01							1.0
SHBL	BZ	48	184	EP		1516	21.44	-0.02							1.0
SHBL	BE	48	184	ES		1516	27.27	0.03							1.0
HWQ	SZ	57	15	EP		1516	22.91	0.05							1.0

**March 9 2013 Hour: 18:26 17.8 Lat: 33.65N Lon: 35.79E Depth: 16 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	15	223	EP		1826	21.45	0.00							1.0
QRWL	SN	15	223	ES		1826	24.10	-0.01							1.0
RCY	SZ	17	166	EP		1826	21.77	0.02	29						1.0
RCY	SN	17	166	ES		1826	24.63	-0.01							1.0
DQRL	SZ	22	288	EP		1826	22.22	-0.02							1.0
DQRL	SN	22	288	ES		1826	25.50	0.02							1.0
BHL	BZ	31	336	EP		1826	23.54	-0.01							1.0

**March 9 2013 Hour: 20:45 11.7 Lat: 33.31N Lon: 35.41E Depth: 0 Agency: REL Local**  
**Magnitudes: 3.0MC REL Rms: 0.0 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	32	82	EP		2045	16.77	-0.04							1.0
SHBL	BN	32	82	ES		2045	20.60	0.01							1.0
QRWL	SZ	37	44	EP		2045	17.65	0.00							1.0
QRWL	SN	37	44	ES		2045	22.01	-0.03							1.0
RCY	SZ	45	62	EP		2045	19.02	0.06							1.0
RCY	SN	45	62	ES		2045	24.33	0.00							1.0
DQRL	SZ	47	19	EP		2045	19.14	-0.08							1.0
DQRL	SN	47	19	ES		2045	24.77	0.00							1.0
BHL	BZ	70	19	EP		2045	23.04	0.06	60						1.0
HWQ	SZ	118	25	EP		2045	30.84	0.02							1.0

**March 10 2013 Hour: 14:30 44.3 Lat: 33.43N Lon: 35.65E Depth: 16 Agency: REL Local**  
**Magnitudes: 2.5MC REL Rms: 0.0 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	12	135	EP		1430	47.77	-0.01							1.0
SHBL	BE	12	135	ES		1430	50.36	0.01							1.0
RCY	SZ	19	66	EP		1430	48.45	0.01	30						1.0
RCY	SN	19	66	ES		1430	51.49	-0.01							1.0
DQRL	SZ	32	346	EP		1430	50.04	-0.00							1.0

**March 10 2013 Hour: 16:54 47.8 Lat: 33.82N Lon: 35.76E Depth: 18 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	314	EP		1654	51.65	0.09	55						1.0
BHL	BN	13	314	ES		1654	54.30	-0.02							1.0
DQRL	SZ	22	234	EP		1654	52.40	-0.02							1.0
BEYL	BZ	25	283	EP		1654	52.72	-0.04							1.0
RCY	SZ	37	169	EP		1654	54.32	-0.08							1.0
RCY	SN	37	169	ES		1654	59.25	-0.01							1.0
SHBL	BZ	52	181	EP		1654	56.65	0.02							1.0
SHBL	BN	52	181	ES		1655	3.19	0.05							1.0
HWQ	SZ	54	19	EP		1654	56.79	0.00							1.0

**March 11 2013 Hour: 5:10 30.5 Lat: 33.62N Lon: 35.78E Depth: 7 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	13	227	EP		510	32.99	-0.00							1.0
QRWL	SN	13	227	ES		510	34.81	0.00							1.0
RCY	SZ	15	160	EP		510	33.38	0.01	29						1.0
RCY	SN	15	160	ES		510	35.47	-0.01							1.0
DQRL	SZ	22	295	EP		510	34.26	-0.03							0.2
BHL	BZ	33	339	EP		510	36.08	-0.00							1.0
BHL	BN	33	339	ES		510	40.20	0.01							1.0

**March 11 2013 Hour: 10:40 12.6 Lat: 33.76N Lon: 36.56E Depth: 10 Agency: REL Local**  
**Magnitudes: 3.0MC REL Rms: 0.0 secs**

**DAMASCUS REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	74	247	EP		1040	24.62	-0.03	60						1.0
RCY	SN	74	247	ES		1040	33.55	0.01							1.0
HWQ	SZ	81	316	EP		1040	25.78	-0.01							1.0
BHL	BZ	86	281	EP		1040	26.48	0.02							1.0
SHBL	BZ	89	239	EP		1040	26.95	0.03							1.0
SHBL	BE	89	239	ES		1040	37.47	-0.02							1.0

**March 11 2013 Hour: 12:35 22.3 Lat: 33.35N Lon: 35.59E Depth: 13 Agency: REL Local**  
**Magnitudes: 2.6MC REL Rms: 0.0 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	14	93	EP		1235	25.60	0.00							1.0
QRWL	SZ	23	22	EP		1235	26.64	-0.02							1.0
QRWL	SE	23	22	ES		1235	29.88	0.01							1.0
RCY	SZ	28	55	EP		1235	27.37	0.01	32						1.0
RCY	SN	28	55	ES		1235	31.07	-0.01							1.0
DQRL	SZ	39	357	EP		1235	29.01	0.01							1.0

**March 11 2013 Hour: 14:3 0.0** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 DQRL SZ EP 14 4 8.02  
 RCY SZ EP 14 4 8.67

**March 11 2013 Hour: 14:57 9.0** Agency: REL Regional  
**EMSC OT=14:57:09.0 36.64N 43.55E 10Km ML=5.0 IRAQ**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1458 46.45  
 BHL BZ EP 1458 51.92  
 RCY SZ EP 1458 52.96  
 DQRL SZ EP 1458 54.87  
 QRWL SZ EP 1458 54.65  
 SHBL BZ EP 1458 54.68

**March 11 2013 Hour: 15:22 23.8 Lat: 33.78N Lon: 35.77E Depth: 6 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 18 323 EP 1522 26.81-0.07 50 1.0  
 DQRL SZ 20 246 EP 1522 27.21-0.02 1.0  
 DQRL SN 20 246 ES 1522 29.84 0.08 1.0  
 QRWL SZ 27 197 EP 1522 28.21-0.06 1.0  
 BEYL BZ 27 293 EP 1522 28.32-0.04 1.0  
 RCY SZ 32 168 EP 1522 29.09-0.01 1.0  
 RCY SN 32 168 ES 1522 33.01 0.01 1.0  
 SHBL BZ 48 183 EP 1522 31.53-0.07 1.0  
 HWQ SZ 58 17 EP 1522 33.33 0.09 1.0

**March 11 2013 Hour: 21:44 0.0** Agency: REL Regional  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 SHBL BZ EP 2145 11.33

**March 12 2013 Hour: 6:10 27.5 Lat: 33.81N Lon: 35.77E Depth: 20 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 15 317 EP 610 31.56-0.00 25 1.0  
 DQRL SZ 21 239 EP 610 32.19 0.01 1.0  
 DQRL SN 21 239 ES 610 35.66-0.01 1.0  
 RCY SZ 35 169 EP 610 33.88-0.01 1.0  
 RCY SN 35 169 ES 610 38.65 0.01 1.0

**March 12 2013 Hour: 12:30 50.3 Lat: 33.78N Lon: 35.79E Depth: 2 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 18 317 EP 1230 53.29-0.01 21 1.0  
 DQRL SZ 22 247 EP 1230 53.91-0.00 1.0  
 DQRL SN 22 247 ES 1230 56.59 0.00 1.0  
 RCY SZ 32 172 EP 1230 55.53-0.00 1.0  
 RCY SE 32 172 ES 1230 59.40-0.01 1.0  
 HWQ SZ 57 15 EP 1230 59.47 0.02 1.0

**March 12 2013 Hour: 13:49 1.0 Lat: 33.45N Lon: 35.56E Depth: 17 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  
 QRWL SZ 15 48 EP 1349 4.80 0.00 1.0  
 SHBL BZ 21 124 EP 1349 5.45-0.01 1.0  
 SHBL BN 21 124 ES 1349 8.75 0.01 1.0  
 RCY SZ 26 80 EP 1349 6.13 0.01 23 1.0  
 RCY SE 26 80 ES 1349 9.87-0.01 1.0

DQRL SZ 28 2 EP 1349 6.27-0.03 0.2

March 12 2013 Hour: 16: 5 29.6 Lat: 33.94N Lon: 36.14E Depth: 13 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
HWQ	SZ	41	335	EP		16	5	36.57-0.01							1.0
BHL	BZ	45	264	EP		16	5	37.17 0.02	29						1.0
BHL	BN	45	264	ES		16	5	42.76-0.01							1.0
DQRL	SZ	59	243	EP		16	5	39.25 0.02							1.0
DQRL	SE	59	243	ES		16	5	46.37-0.01							1.0
QRWL	SZ	61	224	EP		16	5	39.52-0.02							1.0
QRWL	SN	61	224	ES		16	5	46.93 0.01							1.0

March 12 2013 Hour: 16:54 57.4 Lat: 33.80N Lon: 35.78E Depth: 15 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	16	316	EP		1655		1.11-0.00	23						1.0
DQRL	SZ	22	242	EP		1655		1.76-0.00							1.0
DQRL	SN	22	242	ES		1655		5.02 0.00							1.0
QRWL	SZ	29	198	EP		1655		2.73-0.01							1.0
QRWL	SN	29	198	ES		1655		6.72 0.01							1.0
HWQ	SZ	55	16	EP		1655		6.53 0.01							1.0

March 12 2013 Hour: 23:57 35.3 Lat: 33.81N Lon: 35.80E Depth: 19 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	308	EP		2357		39.49 0.02	48						1.0
BHL	BN	17	308	ES		2357		42.60 0.03							1.0
DQRL	SZ	24	241	EP		2357		40.31 0.03							1.0
BEYL	BZ	29	283	EP		2357		40.72-0.07							1.0
QRWL	SZ	31	200	EP		2357		41.11-0.05							1.0
QRWL	SN	31	200	ES		2357		45.48-0.02							1.0
RCY	SZ	35	174	EP		2357		41.76 0.04							1.0
RCY	SN	35	174	ES		2357		46.43-0.05							1.0
SHBL	BZ	52	186	EP		2357		44.11 0.09							1.0
HWQ	SZ	54	15	EP		2357		44.23-0.03							1.0

March 13 2013 Hour: 3:12 53.0 Agency: REL Distant  
EMSC OT=03:12:53.0 60.31N 163.42E 10Km ML=5.8 KAMCHATKA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		324		44.74							
DQRL	SZ			EP		324		45.95							
QRWL	SZ			EP		324		46.86							

March 13 2013 Hour: 6:23 3.0 Agency: REL Regional  
EMSC OT=06:23:03.0 36.66N 43.38E 10Km ML=4.3 IRAQ

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		624		38.52							
BHL	BZ			EP		624		44.23							
RCY	SZ			EP		624		45.44							
QRWL	SZ			EP		624		46.37							
SHBL	BZ			EP		624		46.88							

March 13 2013 Hour: 16: 4 7.9 Lat: 33.79N Lon: 35.80E 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	19	314	EP		16	4	10.91-0.02	38						1.0
DQRL	SZ	23	247	EP		16	4	11.63 0.02							1.0
DQRL	SE	23	247	ES		16	4	14.36-0.01							1.0
QRWL	SZ	29	203	EP		16	4	12.47-0.03							1.0

QRWL	SN	29	203	ES		16	4	15.92	0.01										1.0
HWQ	SZ	56	14	EP		16	4	16.98	0.02										1.0

**March 13 2013 Hour: 21:28 10.0 Agency: REL Regional**  
**EMSC OT=21:28:10.0 34.40N 32.23E 15Km ML=3.1 CYPRUS REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		2128	59.78								
QRWL	SZ			EP		2128	58.27								

**March 14 2013 Hour: 2:29 44.7 Lat: 33.39N Lon: 35.73E Depth: 32 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	5	163	EP		229	50.04	0.02	18						1.0
SHBL	BN	5	163	ES		229	53.94	-0.01							1.0
QRWL	SZ	18	346	EP		229	50.54	-0.01							1.0
QRWL	SN	18	346	ES		229	54.87	0.00							1.0
DQRL	SZ	38	337	EP		229	52.47	-0.00							1.0
DQRL	SN	38	337	ES		229	58.21	0.00							1.0

**March 14 2013 Hour: 8:7 17.1 Lat: 33.88N Lon: 35.83E Depth: 8 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	281	EP		8	7	20.23	-0.01	41					1.0
BHL	BN	17	281	ES		8	7	22.54	-0.01						1.0
DQRL	SZ	31	233	EP		8	7	22.33	-0.00						1.0
DQRL	SN	31	233	ES		8	7	26.21	0.03						1.0
QRWL	SZ	39	201	EP		8	7	23.56	-0.03						1.0
RCY	SZ	42	180	EP		8	7	24.10	0.01						1.0
RCY	SE	42	180	ES		8	7	29.23	-0.00						1.0
HWQ	SZ	46	13	EP		8	7	24.68	0.01						1.0

**March 14 2013 Hour: 13:16 45.7 Lat: 33.32N Lon: 35.56E Depth: 0 Agency: REL Local**  
**Magnitudes: 2.5MC REL Rms: 0.1 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	28	23	EP		1316	50.15	-0.06							1.0
QRWL	SN	28	23	ES		1316	53.50	-0.04							1.0
RCY	SZ	32	52	EP		1316	50.87	-0.03	30						1.0
RCY	SE	32	52	ES		1316	54.80	0.06							1.0
DQRL	SZ	43	1	EP		1316	52.76	0.08							1.0
HWQ	SZ	112	18	EP		1317	3.83	-0.01							1.0

**March 14 2013 Hour: 14:21 43.8 Lat: 33.45N Lon: 35.56E Depth: 14 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	16	46	EP		1421	47.42	0.02							1.0
QRWL	SE	16	46	ES		1421	50.04	-0.01							1.0
SHBL	BZ	21	123	EP		1421	48.02	-0.00							1.0
SHBL	BN	21	123	ES		1421	51.12	0.00							1.0
RCY	SZ	26	78	EP		1421	48.77	-0.02	24						1.0
RCY	SE	26	78	ES		1421	52.46	0.01							1.0

**March 14 2013 Hour: 16:49 59.9 Lat: 33.78N Lon: 35.76E Depth: 1 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	17	323	EP		1650	2.60	-0.01	35						1.0
BHL	BE	17	323	ES		1650	4.61	-0.01							1.0
DQRL	SZ	20	244	EP		1650	3.14	-0.01							1.0
DQRL	SN	20	244	ES		1650	5.58	0.03							1.0
QRWL	SZ	27	196	EP		1650	4.30	-0.04							1.0

QRWL	SE	27	196	ES		1650	7.63	0.01									1.0
RCY	SZ	33	168	EP		1650	5.21	0.01									1.0
HWQ	SZ	57	17	EP		1650	9.16	0.03									1.0

**March 14 2013 Hour: 18:34 2.8 Lat: 33.95N Lon: 35.93E Depth: 0 Agency: REL Local**  
**Magnitudes: 2.8MC REL Rms: 0.0 secs**

**CENTRAL BEKAA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	26	259	EP		1834	6.92	-0.06	44						1.0
BHL	BN	26	259	ES		1834	10.04	-0.01							1.0
HWQ	SZ	37	3	EP		1834	8.77	0.03							1.0
HWQ	SN	37	3	ES		1834	13.11	-0.01							1.0
DQRL	SZ	43	231	EP		1834	9.77	0.08							1.0
DQRL	SN	43	231	ES		1834	14.79	0.01							1.0
QRWL	SZ	50	207	EP		1834	10.86	0.00							1.0
RCY	SZ	51	190	EP		1834	10.99	-0.01							1.0
RCY	SN	51	190	ES		1834	17.09	0.03							1.0
SHBL	BZ	69	194	EP		1834	13.82	-0.06							1.0

**March 15 2013 Hour: 15:1 41.2 Lat: 33.46N Lon: 35.55E Depth: 13 Agency: REL Local**  
**Magnitudes: 2.3MC REL Rms: 0.1 secs**

**SAIDA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	15	52	EP		15	1	44.70	0.11	22					1.0
QRWL	SN	15	52	ES		15	1	47.02	-0.06						1.0
SHBL	BZ	22	126	EP		15	1	45.39	-0.11						1.0
SHBL	BN	22	126	ES		15	1	48.71	0.06						1.0
RCY	SZ	27	82	EP		15	1	46.13	0.00						1.0

**March 15 2013 Hour: 16:21 41.0 Agency: REL Regional**  
**EMSC OT=16:21:41.0 35.77N 27.97E 60Km ML=3.9 DODECANESE ISLANDS**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1623	15.01								
HWQ	SZ			EP		1623	17.05								
RCY	SZ			EP		1623	18.05								

**March 15 2013 Hour: 17:3 17.2 Lat: 33.79N Lon: 35.78E 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	318	EP		17	3	20.19	0.01	48					1.0
BHL	BE	17	318	ES		17	3	22.36	0.00						1.0
DQRL	SZ	21	243	EP		17	3	20.90	0.01						1.0
DQRL	SE	21	243	ES		17	3	23.57	-0.02						1.0
RCY	SZ	33	170	EP		17	3	22.79	0.01						1.0
RCY	SE	33	170	ES		17	3	26.88	-0.00						1.0
HWQ	SZ	56	16	EP		17	3	26.34	-0.02						1.0

**March 15 2013 Hour: 19:1 30.2 Agency: REL Regional**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		19	4	40.87							
BHL	BZ			EP		19	4	40.32							
HWQ	SZ			EP		19	4	43.18							
RCY	SZ			EP		19	4	45.31							

**March 16 2013 Hour: 13:8 42.1 Lat: 33.47N Lon: 35.68E Depth: 0 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
QRWL	SZ	9	359	EP		13	8	43.48	-0.02	38					1.0
RCY	SZ	14	78	EP		13	8	44.45	0.01						1.0
RCY	SN	14	78	ES		13	8	46.18	0.02						1.0
SHBL	BZ	15	158	EP		13	8	44.50	0.02						1.0
SHBL	BN	15	158	ES		13	8	46.21	-0.03						1.0

DQRL	SZ	28	338	EP		13	8	46.69	0.04								1.0
DQRL	SN	28	338	ES		13	8	50.00	-0.02								1.0
BHL	BZ	48	357	EP		13	8	49.95	0.07								1.0
HWQ	SZ	93	15	EP		13	8	56.99	-0.09								1.0

**March 18 2013 Hour: 6:44 36.5 Lat: 33.85N Lon: 35.79E 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	14	294	EP		644	38.80	0.01	22						1.0
DQRL	SZ	26	232	EP		644	40.78	0.02							1.0
DQRL	SE	26	232	ES		644	43.89	-0.02							1.0
RCY	SZ	40	175	EP		644	42.88	-0.01							1.0
RCY	SN	40	175	ES		644	47.63	0.01							1.0
HWQ	SZ	49	16	EP		644	44.43	-0.01							1.0

**March 18 2013 Hour: 21:54 53.2 Lat: 33.65N Lon: 35.68E Depth: 3 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	11	178	EP		2154	55.15	-0.04	42						1.0
QRWL	SN	11	178	ES		2154	56.67	0.01							1.0
DQRL	SZ	12	302	EP		2154	55.25	0.01							1.0
DQRL	SN	12	302	ES		2154	56.77	0.01							1.0
RCY	SZ	23	139	EP		2154	56.94	0.02							1.0
RCY	SN	23	139	ES		2154	59.67	-0.01							1.0
BHL	BZ	28	356	EP		2154	57.77	-0.05							1.0
SHBL	BZ	34	170	EP		2154	58.76	0.01							1.0
HWQ	SZ	74	20	EP		2155	5.17	0.03							1.0

**March 19 2013 Hour: 0:0 57.0 Agency: REL Regional**  
**EMSC OT=00:00:57.0 35.53N 31.85E 10Km ML=3.4 CYPRUS REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		0	1	52.50							
HWQ	SZ			EP		0	1	54.51							
RCY	SZ			EP		0	1	57.00							
SHBL	BZ			EP		0	1	57.34							

**March 19 2013 Hour: 12:0 42.3 Lat: 33.35N Lon: 35.58E Depth: 13 Agency: REL Local**  
**Magnitudes: 2.4MC REL Rms: 0.0 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	15	93	EP		12	0	45.68	-0.02						1.0
SHBL	BN	15	93	ES		12	0	48.22	0.01						1.0
QRWL	SZ	23	24	EP		12	0	46.71	0.02						1.0
QRWL	SN	23	24	ES		12	0	49.93	-0.01						1.0
RCY	SZ	28	57	EP		12	0	47.45	-0.00	27					1.0
DQRL	SZ	39	359	EP		12	0	48.97	-0.00						1.0

**March 19 2013 Hour: 12:58 17.8 Lat: 33.45N Lon: 35.57E Depth: 14 Agency: REL Local**  
**Magnitudes: 2.5MC 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	43	EP		1258	21.24	-0.01	31						1.0
QRWL	SN	15	43	ES		1258	23.77	0.00							1.0
SHBL	BZ	19	125	EP		1258	21.86	0.01							1.0
SHBL	BN	19	125	ES		1258	24.81	-0.01							1.0
RCY	SZ	25	78	EP		1258	22.57	0.00							1.0
DQRL	SZ	28	359	EP		1258	23.03	0.00							1.0



March 19 2013 Hour: 14:1 4.1 Lat: 33.79N Lon: 35.77E Depth: 0 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	17	320	EP		14	1	6.88-0.01	36						1.0
BHL	BE	17	320	ES		14	1	8.90-0.03							1.0
DQRL	SZ	21	245	EP		14	1	7.48 0.00							1.0
DQRL	SN	21	245	ES		14	1	9.97 0.02							1.0
RCY	SZ	33	169	EP		14	1	9.44 0.03							1.0
RCY	SE	33	169	ES		14	1	13.26-0.05							1.0
HWQ	SZ	57	16	EP		14	1	13.35 0.03							1.0

March 19 2013 Hour: 14:34 45.2 Lat: 34.46N Lon: 36.62E Depth: 9 Agency: REL Local  
Magnitudes: 3.2MC 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	66	252	EP		1434		55.86-0.00	72						1.0
HWQ	SN	66	252	ES		1435		3.79-0.00							1.0
BHL	BZ	109	235	EP		1435		2.45 0.00							1.0
DQRL	SZ	129	229	EP		1435		5.36 0.01							1.0
SHBL	BZ	148	214	EP		1435		8.25-0.01							1.0
SHBL	BN	148	214	ES		1435		25.35-0.00							1.0

March 19 2013 Hour: 16:30 4.4 Lat: 33.78N Lon: 35.79E 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	317	EP		1630		7.40-0.02	46						1.0
BHL	BN	19	317	ES		1630		9.66 0.00							1.0
DQRL	SZ	22	247	EP		1630		8.00-0.01							1.0
DQRL	SN	22	247	ES		1630		10.71 0.02							1.0
QRWL	SZ	28	201	EP		1630		8.89-0.04							1.0
BEYL	BZ	29	290	EP		1630		9.15 0.01							0.2
RCY	SZ	32	173	EP		1630		9.61 0.03							1.0
RCY	SN	32	173	ES		1630		13.42-0.00							1.0
SHBL	BZ	48	185	EP		1630		12.26 0.04							1.0
SHBL	BN	48	185	ES		1630		17.98-0.03							1.0
HWQ	SZ	57	15	EP		1630		13.60 0.04							0.2

March 20 2013 Hour: 7:16 11.5 Lat: 33.87N Lon: 35.84E Depth: 0 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	17	282	EP		716		14.26-0.01	56						1.0
BHL	BN	17	282	ES		716		16.31-0.01							1.0
DQRL	SZ	31	233	EP		716		16.48 0.04							1.0
DQRL	SN	31	233	ES		716		20.11-0.00							1.0
QRWL	SZ	39	202	EP		716		17.63-0.09							1.0
QRWL	SN	39	202	ES		716		22.39 0.06							1.0
RCY	SZ	42	180	EP		716		18.20 0.01							1.0
RCY	SN	42	180	ES		716		23.15-0.01							1.0
HWQ	BZ	46	13	EP		716		18.96 0.01							1.0
SHBL	BZ	59	188	EP		716		20.97 0.02							1.0
SHBL	BN	59	188	ES		716		27.92-0.03							1.0

March 20 2013 Hour: 11:35 10.8 Lat: 33.80N Lon: 35.76E Depth: 18 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	15	319	EP		1135		14.71-0.02	39						1.0
BHL	BE	15	319	ES		1135		17.63 0.01							1.0
DQRL	SZ	21	238	EP		1135		15.34 0.01							1.0
DQRL	SN	21	238	ES		1135		18.66-0.01							1.0



RCY	SZ	35	168	EP		1135	17.16	0.01										1.0
RCY	SN	35	168	ES		1135	21.84	-0.00										1.0
HWQ	SZ	55	18	EP		1135	20.04	0.00										1.0

**March 20 2013 Hour: 15:31 32.6 Lat: 33.78N Lon: 35.79E Depth: 3 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	318	EP		1531	35.59	-0.04	37						1.0
BHL	BN	18	318	ES		1531	37.87	0.01							1.0
DQRL	SZ	22	247	EP		1531	36.24	0.04							1.0
QRWL	SZ	28	200	EP		1531	37.13	-0.03							1.0
QRWL	SN	28	200	ES		1531	40.51	-0.02							1.0
RCY	SZ	32	172	EP		1531	37.87	0.02							1.0
RCY	SE	32	172	ES		1531	41.74	0.01							1.0
HWQ	SZ	57	15	EP		1531	41.81	0.00							1.0

**March 20 2013 Hour: 17:14 51.0 Agency: REL Regional**  
**EMSC OT=17:14:51.0 35.60N 28.97E 20Km ML=3.8 EASTERN MED SEA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1716	14.29								
DQRL	SZ			EP		1716	14.57								
HWQ	BZ			EP		1716	16.48								
RCY	SZ			EP		1716	18.88								
SHBL	BZ			EP		1716	18.82								

**March 20 2013 Hour: 22:29 0.0 Agency: REL Distant**  
**EMSC OT=22:29:00.0 55.62N 35.01W 10Km ML=5.4 REYKJANES RIDGE**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2238	10.68								
SHBL	BZ			EP		2238	13.85								

**March 21 2013 Hour: 12:34 30.8 Lat: 33.35N Lon: 35.60E Depth: 13 Agency: REL Local**  
**Magnitudes: 2.7MC REL Rms: 0.0 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	14	89	EP		1234	34.09	0.02							1.0
SHBL	BN	14	89	ES		1234	36.52	0.00							1.0
QRWL	SZ	24	20	EP		1234	35.16	-0.10							1.0
QRWL	SN	24	20	ES		1234	38.61	0.02							1.0
RCY	SZ	28	53	EP		1234	35.86	-0.00	39						1.0
RCY	SN	28	53	ES		1234	39.65	0.00							1.0
DQRL	SZ	40	356	EP		1234	37.68	0.06							1.0

**March 21 2013 Hour: 13:56 13.9 Lat: 33.78N Lon: 35.76E Depth: 12 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	325	EP		1356	17.31	-0.01	40						1.0
BHL	BN	16	325	ES		1356	19.82	-0.02							1.0
DQRL	SZ	19	243	EP		1356	17.75	0.04							1.0
QRWL	SZ	27	195	EP		1356	18.66	-0.14							1.0
QRWL	SE	27	195	ES		1356	22.51	0.10							1.0
RCY	SZ	33	167	EP		1356	19.69	0.02							1.0
RCY	SN	33	167	ES		1356	23.89	-0.03							1.0
HWQ	SZ	58	18	EP		1356	23.50	0.05							1.0

**March 21 2013 Hour: 16: 0 55.2 Lat: 33.79N Lon: 35.78E Depth: 3 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		16 0	57.96	0.00	40						1.0
DQRL	SZ	21	243	EP		16 0	58.70	-0.01							1.0
DQRL	SN	21	243	ES		16 1	1.32	-0.01							1.0

RCY	SZ	34	170	EP		16	1	0.65	0.01								1.0
RCY	SN	34	170	ES		16	1	4.68	-0.01								1.0
SHBL	BZ	50	183	EP		16	1	3.22	0.01								1.0
SHBL	BN	50	183	ES		16	1	9.15	-0.00								1.0

**March 23 2013 Hour: 1:11 32.1**

**Agency: REL Regional**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		111	41.46								
BHL	BZ			EP		111	47.99								
DQRL	SZ			EP		111	50.41								
RCY	SZ			EP		111	50.60								

**March 23 2013 Hour: 8:37 1.5**

**Lat: 33.86N Lon: 35.82E 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	16	288	EP		837	4.12	-0.02	35						1.0
BHL	BN	16	288	ES		837	6.13	0.00							1.0
DQRL	SZ	29	233	EP		837	6.13	-0.02							1.0
DQRL	SN	29	233	ES		837	9.65	0.02							1.0
RCY	SZ	40	178	EP		837	8.03	0.01							1.0
RCY	SN	40	178	ES		837	12.86	-0.01							1.0
HWQ	SZ	48	14	EP		837	9.20	0.01							1.0

**March 25 2013 Hour: 3:59 53.0**

**Agency: REL Distant**

**EMSC OT=03:59:53.0 17.78S 178.32W 551Km ML=5.3 FIJI REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		418	29.90								
BHL	BZ			EP		418	31.13								
QRWL	SZ			EP		418	31.68								
SHBL	BZ			EP		418	31.85								
DQRL	SZ			EP		418	31.77								

**March 25 2013 Hour: 9:38 30.1**

**Lat: 33.39N Lon: 35.41E Depth: 22 Agency: REL Local**

**Magnitudes: 2.4MC REL**

**Rms: 0.1 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	31	55	EP		938	36.24	0.02	27						1.0
QRWL	SN	31	55	ES		938	40.71	-0.02							1.0
SHBL	BZ	32	98	EP		938	36.25	-0.09							1.0
SHBL	BN	32	98	ES		938	40.99	0.05							1.0
DQRL	SZ	38	23	EP		938	37.23	0.07							0.2
RCY	SZ	42	73	EP		938	37.69	0.07							1.0
RCY	SN	42	73	ES		938	43.13	-0.04							1.0

**March 25 2013 Hour: 10:52 3.2**

**Lat: 33.40N Lon: 35.66E Depth: 0 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	10	127	EP		1052	4.72	-0.01							1.0
QRWL	SZ	17	7	EP		1052	5.84	-0.01							1.0
RCY	SZ	19	56	EP		1052	6.33	0.02	41						1.0
RCY	SE	19	56	ES		1052	8.63	-0.01							1.0
DQRL	SZ	35	346	EP		1052	8.83	0.01							1.0
DQRL	SE	35	346	ES		1052	13.00	-0.00							1.0

**March 25 2013 Hour: 11:14 0.0**

**Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1114	57.05								
RCY	SZ			EP		1115	5.42								

March 25 2013 Hour: 14:39 2.3 Lat: 33.45N Lon: 35.64E Depth: 0 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
QRWL	SZ	11	20	EP		1439	4.07-0.08								1.0
QRWL	SE	11	20	ES		1439	5.48-0.01								1.0
SHBL	BZ	15	140	EP		1439	4.77-0.01								1.0
SHBL	BN	15	140	ES		1439	6.58-0.01								1.0
RCY	SZ	19	75	EP		1439	5.44 0.06		38						1.0
DQRL	SZ	29	347	EP		1439	7.02 0.04								1.0

March 25 2013 Hour: 20:55 19.0 Agency: REL Regional  
EMSC OT=20:55:19.0 35.65N 24.71E 59Km ML=4.5 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		2057	23.51								
BHL	BZ			EP		2057	23.46								
QRWL	SZ			EP		2057	25.26								
HWQ	SZ			EP		2057	26.14								
RCY	SZ			EP		2057	27.27								

March 26 2013 Hour: 9:42 0.0 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		942	25.55								
RCY	SZ			EP		942	27.90								

March 26 2013 Hour: 15:53 19.5 Lat: 33.78N Lon: 35.76E Depth: 0 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	17	327	EP		1553	22.25-0.03		36						1.0
BHL	BE	17	327	ES		1553	24.32 0.01								1.0
DQRL	SZ	19	245	EP		1553	22.62 0.04								1.0
DQRL	SN	19	245	ES		1553	24.80-0.03								1.0
RCY	SZ	32	166	EP		1553	24.70 0.00								1.0
HWQ	SZ	58	18	EP		1553	28.96 0.00								1.0

March 26 2013 Hour: 16:20 17.3 Lat: 33.79N Lon: 35.78E Depth: 4 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	318	EP		1620	20.15-0.01		40						1.0
BHL	BE	17	318	ES		1620	22.29 0.00								1.0
DQRL	SZ	21	244	EP		1620	20.88 0.01								1.0
RCY	SZ	33	171	EP		1620	22.73-0.01								1.0
RCY	SE	33	171	ES		1620	26.76-0.00								1.0
HWQ	SZ	56	16	EP		1620	26.41 0.01								1.0

March 27 2013 Hour: 16:9 48.3 Lat: 33.80N Lon: 35.77E Depth: 16 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	317	EP		16 9	52.09-0.00		35						1.0
DQRL	SZ	21	241	EP		16 9	52.71-0.01								1.0
DQRL	SN	21	241	ES		16 9	55.97 0.01								1.0
RCY	SZ	34	170	EP		16 9	54.43-0.01								1.0
RCY	SN	34	170	ES		16 9	58.95-0.00								1.0
HWQ	SZ	56	17	EP		16 9	57.53 0.01								1.0

**March 27 2013 Hour: 23:14 40.6 Lat: 33.64N Lon: 35.82E Depth: 7 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
RCY	SZ	16	174	EP		2314	43.48	-0.00	28						1.0
RCY	SN	16	174	ES		2314	45.65	0.00							1.0
QRWL	SZ	16	231	EP		2314	43.47	-0.01							1.0
QRWL	SN	16	231	ES		2314	45.65	0.01							1.0
DQRL	SZ	24	287	EP		2314	44.65	0.00							1.0
DQRL	SN	24	287	ES		2314	47.66	-0.01							1.0
BHL	BZ	33	333	EP		2314	46.02	0.01							1.0

**March 28 2013 Hour: 0:28 13.6 Lat: 33.64N Lon: 35.82E 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
RCY	SZ	16	175	EP		028	16.25	0.00	29						1.0
RCY	SN	16	175	ES		028	18.21	0.00							1.0
QRWL	SZ	16	231	EP		028	16.27	-0.01							1.0
QRWL	SN	16	231	ES		028	18.28	0.01							1.0
DQRL	SZ	24	287	EP		028	17.55	0.03							1.0
DQRL	SN	24	287	ES		028	20.42	-0.01							1.0
BHL	BZ	33	332	EP		028	18.92	-0.01							1.0
SHBL	BZ	33	192	EP		028	18.98	-0.00							1.0

**March 28 2013 Hour: 1:10 51.8 Lat: 33.65N Lon: 35.84E Depth: 6 Agency: REL Local**  
**Magnitudes: 2.8MC 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	17	182	EP		110	54.95	0.04							1.0
RCY	SN	17	182	ES		110	57.20	-0.00							1.0
QRWL	SZ	19	231	EP		110	54.97	-0.12							1.0
DQRL	SZ	26	283	EP		110	56.19	0.04	43						1.0
DQRL	SE	26	283	ES		110	59.38	0.02							1.0
BHL	BZ	33	328	EP		110	57.25	0.01							1.0
SHBL	BZ	35	195	EP		110	57.61	-0.01							1.0
SHBL	BN	35	195	ES		111	1.95	0.04							1.0
HWQ	SZ	70	8	EP		111	3.16	-0.01							1.0

**March 28 2013 Hour: 11:27 54.9 Lat: 33.90N Lon: 35.82E Depth: 6 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	271	EP		1127	57.61	-0.02	31						1.0
BHL	BE	15	271	ES		1127	59.65	0.00							1.0
DQRL	SZ	32	227	EP		1128	0.15	0.01							1.0
HWQ	SZ	43	16	EP		1128	2.00	0.01							1.0
RCY	SZ	45	178	EP		1128	2.24	-0.00							1.0
RCY	SN	45	178	ES		1128	7.67	-0.00							1.0

**March 28 2013 Hour: 15:31 6.0 Lat: 33.88N Lon: 35.85E Depth: 0 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	278	EP		1531	8.95	-0.01	36						1.0
BHL	BE	18	278	ES		1531	11.13	-0.00							1.0
DQRL	SZ	32	233	EP		1531	11.25	0.02							1.0
RCY	SZ	43	182	EP		1531	12.87	-0.03							1.0
RCY	SN	43	182	ES		1531	18.01	0.02							1.0
HWQ	SZ	45	12	EP		1531	13.30	0.01							1.0

**March 28 2013 Hour: 17: 4 17.2 Lat: 33.79N Lon: 35.77E Depth: 2 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	17	319	EP		17 4	19.93	-0.04	56						1.0
DQRL	SZ	21	244	EP		17 4	20.64	0.01							1.0
DQRL	SE	21	244	ES		17 4	23.19	0.04							1.0
BEYL	BZ	27	289	EP		17 4	21.57	-0.08							0.2
QRWL	SZ	28	197	EP		17 4	21.67	-0.10							1.0
RCY	SZ	33	170	EP		17 4	22.59	0.02							1.0
RCY	SN	33	170	ES		17 4	26.54	-0.00							1.0
SHBL	BZ	49	183	EP		17 4	25.19	0.05							1.0
HWQ	SZ	57	16	EP		17 4	26.37	0.03							1.0

**March 28 2013 Hour: 22:48 36.8 Lat: 33.23N Lon: 35.72E Depth: 8 Agency: REL Local**  
**Magnitudes: 2.3MC 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	14	10	EP		2248	39.51	-0.01							1.0
SHBL	BN	14	10	ES		2248	41.53	0.01							1.0
RCY	SZ	32	20	EP		2248	42.18	0.01	21						1.0
RCY	SN	32	20	ES		2248	46.13	-0.01							1.0
QRWL	SZ	36	354	EP		2248	42.76	0.00							1.0

**March 29 2013 Hour: 11:23 19.7 Lat: 33.45N Lon: 35.59E Depth: 11 Agency: REL Local**  
**Magnitudes: 2.6MC 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	13	38	EP		1123	22.59	-0.00							1.0
SHBL	BZ	18	129	EP		1123	23.24	-0.00							1.0
SHBL	BN	18	129	ES		1123	25.89	0.00							1.0
RCY	SZ	23	78	EP		1123	23.91	0.00	33						1.0
RCY	SN	23	78	ES		1123	27.05	-0.00							1.0

**March 29 2013 Hour: 12:33 41.5 Lat: 33.79N Lon: 35.77E Depth: 3 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	320	EP		1233	44.32	-0.01	42						1.0
DQRL	SZ	21	244	EP		1233	44.92	-0.01							1.0
DQRL	SE	21	244	ES		1233	47.47	0.01							1.0
RCY	SZ	33	169	EP		1233	46.86	0.00							1.0
RCY	SE	33	169	ES		1233	50.82	-0.01							1.0
HWQ	SZ	57	17	EP		1233	50.70	0.01							1.0

**March 29 2013 Hour: 13: 5 45.0 Lat: 33.34N Lon: 35.57E Depth: 15 Agency: REL Local**  
**Magnitudes: 2.6MC REL Rms: 0.0 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	16	86	EP		13 5	48.82	-0.01							1.0
SHBL	BN	16	86	ES		13 5	51.66	0.00							1.0
QRWL	SZ	26	25	EP		13 5	49.90	0.01							1.0
RCY	SZ	30	55	EP		13 5	50.62	0.02	33						1.0
RCY	SN	30	55	ES		13 5	54.72	-0.01							1.0
DQRL	SZ	41	0	EP		13 5	51.90	-0.12							0.2

**March 29 2013 Hour: 16: 7 36.0 Lat: 33.79N 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	17	316	EP		16 7	38.87	-0.07	39						1.0
DQRL	SZ	22	244	EP		16 7	39.60	-0.06							1.0
DQRL	SN	22	244	ES		16 7	42.48	0.08							1.0

RCY	SZ	33	172	EP		16	7	41.42	-0.01									1.0
RCY	SN	33	172	ES		16	7	45.47	-0.01									1.0
HWQ	SZ	56	16	EP		16	7	45.11	0.07									1.0

**March 29 2013 Hour: 16:46 12.0 Lat: 33.79N Lon: 35.77E Depth: 0 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	320	EP		1646	14.58	-0.03	45						1.0
DQRL	SZ	21	242	EP		1646	15.36	0.04							1.0
DQRL	SN	21	242	ES		1646	17.75	-0.02							1.0
RCY	SZ	33	169	EP		1646	17.36	-0.04							1.0
RCY	SN	33	169	ES		1646	21.40	0.01							1.0
SHBL	BZ	49	182	EP		1646	19.94	-0.01							1.0
SHBL	BN	49	182	ES		1646	25.85	0.01							1.0
HWQ	SZ	56	17	EP		1646	21.14	0.04							1.0

**March 30 2013 Hour: 1:50 45.0 Agency: REL Distant**  
**EMSC OT=01:50:45.0 10.14N 126.37E 40Km ML=5.5 PHILIPPINE ISLANDS**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2	3	16.30							
SHBL	BZ			EP		2	3	16.38							

**March 30 2013 Hour: 11:57 58.6 Lat: 33.34N Lon: 35.55E Depth: 18 Agency: REL Local**  
**Magnitudes: 2.6MC REL Rms: 0.1 secs**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	18	86	EP		1158	2.73	-0.09							1.0
SHBL	BN	18	86	ES		1158	6.03	0.05							1.0
QRWL	SZ	26	27	EP		1158	3.78	0.04							1.0
RCY	SZ	32	56	EP		1158	4.58	0.09	34						1.0
RCY	SN	32	56	ES		1158	8.82	-0.06							1.0
DQRL	SZ	41	2	EP		1158	5.68	-0.03							1.0

**March 31 2013 Hour: 1:50 28.7 Lat: 35.44N Lon: 37.16E Depth: 15 Agency: REL Regional**  
**Magnitudes: 3.9MC REL Rms: 0.3 secs**

**SYRIA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	170	221	EP		150	54.00	-0.42							1.0
HWQ	SN	170	221	ES		151	13.35	-0.09							1.0
BHL	BZ	219	220	EP		151	0.56	0.05	176						1.0
BHL	BN	219	220	ES		151	24.03	0.00							1.0
BEYL	BZ	231	222	EP		151	2.12	0.18							0.2
DQRL	SZ	241	218	EP		151	3.21	-0.05							1.0
RCY	SZ	247	210	EP		151	4.04	-0.02							1.0
QRWL	SZ	249	213	EP		151	4.84	0.53							1.0
SHBL	BZ	265	210	EP		151	6.43	0.07							1.0

**March 31 2013 Hour: 7:29 55.1 Lat: 35.36N Lon: 36.88E Depth: 0 Agency: REL Regional**  
**Magnitudes: 3.7MC REL Rms: 0.2 secs**

**SYRIA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	147	216	EP		730	18.70	0.06	145						1.0
HWQ	SN	147	216	ES		730	36.02	-0.07							1.0
BHL	BZ	197	215	EP		730	25.55	-0.07							1.0
BHL	BN	197	215	ES		730	48.33	0.10							1.0
BEYL	BZ	208	218	EP		730	27.00	0.03							1.0
DQRL	SZ	219	214	EP		730	28.63	0.20							1.0
RCY	SZ	228	205	EP		730	28.84	-0.68							1.0

March 31 2013 Hour: 16:28 10.0

Agency: REL Regional

EMSC OT=16:28:10.0 36.02N 24.31E 70Km ML=4.3 SOUTHERN GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1630	18.58								
QRWL	SZ			EP		1630	20.86								
RCY	SZ			EP		1630	22.72								

March 31 2013 Hour: 22:15 25.5

Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		2215	32.43								
BHL	BZ			EP		2215	39.19								
RCY	SZ			EP		2215	42.71								
QRWL	SZ			EP		2215	43.04								





# Epicentral Map of Lebanon

## MARCH 2013

