

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

June

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

PERI: Period where amplitude is measured

BAZ: Back azimuth (station to event)

ARES: Back azimuth residual

VELO: Apparent phase velocity (km/sec)

WT: Weight of phase in the location

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

June 1 2013 Hour: 1:34 14.0 Agency: REL Distant
EMSC OT=01:34:14.0 23.06S 177.14W 180Km M=5.5 FIJI ISLANDS
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 153 42.32
 RCY SZ EP 153 42.53
 QRWL SZ EP 153 42.89
 SHBL BZ EP 153 43.04

June 1 2013 Hour: 11:16 20.3 Lat: 33.83N Lon: 35.74E Depth: 28 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	11	318	EP		1116	25.25	0.03	53						1.0
BHL	BN	11	318	ES		1116	28.82	-0.03							1.0
DQRL	SZ	21	228	EP		1116	25.83	-0.05							1.0
DQRL	SN	21	228	ES		1116	30.05	0.04							1.0
RCY	SZ	38	166	EP		1116	27.79	-0.00							1.0
HWQ	SZ	53	21	EP		1116	29.74	0.01							1.0

June 1 2013 Hour: 11:49 27.0 Agency: REL Regional
EMSC OT=11:49:27.0 28.41N 33.36E 2Km M=4.8 EGYPT

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		1150	48.27								
RCY	SZ			EP		1150	49.96								
QRWL	SZ			EP		1150	50.50								
DQRL	SZ			EP		1150	51.92								
BHL	BZ			EP		1150	54.43								
HWQ	SZ			EP		1151	0.74								

June 1 2013 Hour: 14:10 7.0 Agency: REL Distant
EMSC OT=14:10:07.0 7.32N 124.93E 10Km M=5.6 MINDANAO,

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1422	47.70								
SHBL	BZ			EP		1422	48.01								

June 1 2013 Hour: 16:28 43.6 Lat: 33.79N Lon: 35.78E Depth: 8 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	317	EP		1628	46.74	-0.00	47						1.0
BHL	BN	17	317	ES		1628	49.03	-0.02							1.0
DQRL	SZ	22	243	EP		1628	47.44	0.01							1.0
DQRL	SN	22	243	ES		1628	50.28	0.03							1.0
QRWL	SZ	29	198	EP		1628	48.47	-0.05							1.0
RCY	SZ	34	170	EP		1628	49.33	0.06							1.0
SHBL	BZ	50	183	EP		1628	51.74	-0.05							1.0
HWQ	SZ	56	16	EP		1628	52.80	0.01							1.0

June 1 2013 Hour: 23:3 7.5 Lat: 33.81N Lon: 35.79E Depth: 19 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs
BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	309	EP		23 3	11.64	0.01	37						1.0
BHL	BN	16	309	ES		23 3	14.66	-0.00							1.0
DQRL	SZ	24	240	EP		23 3	12.45	0.02							1.0
QRWL	SZ	31	199	EP		23 3	13.31	-0.06							1.0
RCY	SZ	35	173	EP		23 3	13.96	-0.02							1.0
RCY	SN	35	173	ES		23 3	18.78	0.02							1.0
SHBL	BZ	52	185	EP		23 3	16.30	0.04							1.0
HWQ	SZ	54	16	EP		23 3	16.51	0.00							1.0

June 2 2013 Hour: 2:47 57.0 Agency: REL Regional
EMSC OT=02:47:57.0 34.95N 19.40E 10Km M=4.5 CENTRAL MED SEA
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 251 2.12
 DQRL SZ EP 251 2.34
 RCY SZ EP 251 6.08

June 2 2013 Hour: 5:43 4.0 Agency: REL Distant
EMSC OT=05:43:04.0 23.79N 121.08E 20Km M=6.2 TAIWAN
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 554 36.86
 SHBL BZ EP 554 37.71

June 2 2013 Hour: 8:53 29.5 Lat: 33.78N Lon: 35.78E 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 18 320 EP 853 32.39-0.05 41 1.0
 BHL BE 18 320 ES 853 34.61 0.01 1.0
 DQRL SZ 21 246 EP 853 32.97 0.03 1.0
 RCY SZ 32 170 EP 853 34.70-0.03 1.0
 RCY SE 32 170 ES 853 38.61 0.02 1.0
 HWQ SZ 57 16 EP 853 38.79 0.03 1.0

June 2 2013 Hour: 16:44 18.6 Lat: 33.78N Lon: 35.76E 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 17 324 EP 1644 21.23-0.11 43 1.0
 BHL BN 17 324 ES 1644 23.39 0.03 1.0
 DQRL SZ 20 245 EP 1644 21.78 0.01 1.0
 DQRL SN 20 245 ES 1644 24.11 0.00 1.0
 BEYL BZ 27 292 EP 1644 22.93 0.00 1.0
 QRWL SZ 27 196 EP 1644 22.95 0.01 1.0
 QRWL SN 27 196 ES 1644 26.17 0.01 1.0
 RCY SZ 32 168 EP 1644 23.82 0.00 1.0
 RCY SE 32 168 ES 1644 27.66-0.01 1.0
 HWQ SZ 58 17 EP 1644 27.97 0.05 1.0

June 2 2013 Hour: 20: 8 30.0 Agency: REL Distant
EMSC OT=20:08:30.0 7.23N 124.94E 30Km M=5.5 MINDANAO
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 2021 4.03
 SHBL BZ EP 2021 4.25

June 3 2013 Hour: 10:57 9.4 Lat: 33.40N Lon: 35.63E Depth: 8 Agency: REL Local
Magnitudes: 2.5MC 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 12 116 EP 1057 11.85-0.08 1.0
 SHBL BN 12 116 ES 1057 13.85 0.05 1.0
 QRWL SZ 18 18 EP 1057 12.54-0.04 1.0
 RCY SZ 23 61 EP 1057 13.36 0.02 28 1.0
 RCY SN 23 61 ES 1057 16.26-0.00 1.0
 DQRL SZ 35 352 EP 1057 15.26 0.09 1.0
 DQRL SN 35 352 ES 1057 19.41-0.03 1.0

June 4 2013 Hour: 10:50 0.0 Agency: REL Local
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 RCY SZ EP 1050 29.34
 HWQ SZ EP 1050 43.48

June 4 2013 Hour: 11:55 51.5 Lat: 33.91N Lon: 35.82E 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	16	269	EP		1155	54.17	-0.01	39						1.0
BHL	BN	16	269	ES		1155	56.13	0.01							1.0
DQRL	SZ	32	227	EP		1155	56.83	0.02							1.0
DQRL	SE	32	227	ES		1156	0.68	-0.01							1.0
HWQ	SZ	43	15	EP		1155	58.50	-0.00							1.0
RCY	SZ	45	179	EP		1155	58.90	-0.01							1.0
RCY	SN	45	179	ES		1156	4.37	0.01							1.0

June 4 2013 Hour: 14:11 29.2 Lat: 33.78N Lon: 35.77E Depth: 1 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	322	EP		1411	32.08	-0.04	40						1.0
BHL	BE	18	322	ES		1411	34.27	0.01							1.0
DQRL	SZ	21	247	EP		1411	32.61	0.06							1.0
DQRL	SN	21	247	ES		1411	35.01	-0.00							1.0
QRWL	SZ	27	198	EP		1411	33.51	-0.07							1.0
RCY	SZ	32	170	EP		1411	34.39	0.03							1.0
RCY	SN	32	170	ES		1411	38.16	0.00							1.0
HWQ	SZ	58	16	EP		1411	38.54	0.01							1.0

June 4 2013 Hour: 15: 6 55.7 Lat: 33.45N Lon: 35.62E Depth: 5 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	12	27	EP		15 6	57.94	-0.02	26						1.0
QRWL	SN	12	27	ES		15 6	59.65	0.02							1.0
SHBL	BZ	16	134	EP		15 6	58.51	-0.00							1.0
RCY	SZ	21	75	EP		15 6	59.25	0.03							1.0
RCY	SE	21	75	ES		15 7	1.80	-0.02							1.0
DQRL	SZ	29	351	EP		15 7	0.48	-0.01							1.0

June 4 2013 Hour: 15:24 33.7 Lat: 33.79N Lon: 35.78E Depth: 4 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		1524	36.50	-0.01	29						1.0
BHL	BE	17	317	ES		1524	38.60	0.00							1.0
DQRL	SZ	21	243	EP		1524	37.27	0.01							1.0
RCY	SZ	33	170	EP		1524	39.17	-0.00							1.0
RCY	SE	33	170	ES		1524	43.21	-0.01							1.0
HWQ	SZ	56	16	EP		1524	42.78	0.01							1.0

June 5 2013 Hour: 0:43 37.0 Agency: REL Distant
EMSC OT=00:43:37.0 37.71N 95.93E 10Km M=5.5 NORTHERN QINGHAI

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		052	19.25								
RCY	SZ			EP		052	20.27								
QRWL	SZ			EP		052	21.13								
SHBL	BZ			EP		052	21.29								

June 5 2013 Hour: 11:48 48.5 Lat: 33.40N Lon: 35.64E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	11	117	EP		1148	50.32	-0.04							1.0
SHBL	BN	11	117	ES		1148	51.72	0.02							1.0
QRWL	SZ	18	14	EP		1148	51.38	0.01	29						1.0
RCY	SZ	22	58	EP		1148	52.11	0.07							1.0
RCY	SN	22	58	ES		1148	54.59	-0.04							1.0
DQRL	SZ	35	350	EP		1148	54.19	-0.02							1.0

June 5 2013 Hour: 13:16 35.0 Lat: 33.51N Lon: 35.69E 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	4	354	EP		1316	35.70	-0.02							1.0
QRWL	SN	4	354	ES		1316	36.25	0.01							1.0
RCY	SZ	14	96	EP		1316	37.27	-0.00	33						1.0
DQRL	SZ	24	334	EP		1316	38.97	0.03							1.0
DQRL	SN	24	334	ES		1316	41.83	-0.01							1.0
BHL	BZ	44	356	EP		1316	42.08	-0.02							1.0
HWQ	SZ	89	16	EP		1316	49.44	0.14							0.2

June 5 2013 Hour: 18:3 17.5 Lat: 33.78N Lon: 35.76E 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	325	EP		18 3	20.33	-0.08	42						1.0
BHL	BN	17	325	ES		18 3	22.57	0.04							1.0
DQRL	SZ	19	245	EP		18 3	20.83	0.03							1.0
QRWL	SZ	27	195	EP		18 3	21.92	-0.04							1.0
QRWL	SN	27	195	ES		18 3	25.21	-0.02							1.0
RCY	SZ	32	167	EP		18 3	22.86	0.01							1.0
SHBL	BZ	48	182	EP		18 3	25.38	0.04							1.0
HWQ	SZ	58	17	EP		18 3	26.93	0.01							1.0

June 6 2013 Hour: 15:8 36.5 Lat: 33.45N Lon: 35.64E 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	11	20	EP		15 8	38.30	-0.05							1.0
QRWL	SN	11	20	ES		15 8	39.73	0.01							1.0
SHBL	BZ	15	140	EP		15 8	38.92	-0.04							1.0
SHBL	BN	15	140	ES		15 8	40.80	0.03							1.0
RCY	SZ	19	75	EP		15 8	39.59	0.02	34						1.0
DQRL	SZ	29	347	EP		15 8	41.21	0.04							1.0

June 7 2013 Hour: 1:25 33.7 Lat: 33.87N Lon: 35.17E Depth: 25 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	41	116	EP		125	41.31	0.01	33						1.0
DQRL	SN	41	116	ES		125	46.89	-0.01							1.0
BHL	BZ	45	85	EP		125	41.78	-0.01							1.0
SHBL	BZ	79	137	EP		125	46.53	0.01							1.0
SHBL	BE	79	137	ES		125	55.97	-0.01							1.0

June 7 2013 Hour: 11:059.4 Lat: 33.37N Lon: 35.62E Depth: 8 Agency: REL Local
 Magnitudes: 2.6MC REL Rms: 0.1 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	12	102	EP		11	1	1.87	0.00						1.0
SHBL	BE	12	102	ES		11	1	3.74	0.01						1.0
QRWL	SZ	21	17	EP		11	1	2.89	-0.10						1.0
RCY	SZ	25	56	EP		11	1	3.62	-0.01	36					1.0
RCY	SN	25	56	ES		11	1	6.82	0.02						1.0
DQRL	SZ	37	353	EP		11	1	5.65	0.08						1.0

June 7 2013 Hour: 11:2453.2 Lat: 33.78N Lon: 35.77E Depth: 4 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	322	EP		1124	56.09	-0.00	33						1.0
DQRL	SZ	20	245	EP		1124	56.61	0.01							1.0
DQRL	SE	20	245	ES		1124	59.11	-0.01							1.0
RCY	SZ	33	169	EP		1124	58.53	-0.01							1.0
RCY	SE	33	169	ES		1125	2.50	0.00							1.0
HWQ	SZ	57	17	EP		1125	2.48	0.00							1.0

June 7 2013 Hour: 12:5236.7 Lat: 33.54N Lon: 35.69E Depth: 0 Agency: REL Local
 Magnitudes: 2.4MC 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	1	325	EP		1252	36.83	-0.11							1.0
DQRL	SZ	21	329	EP		1252	40.20	0.04							1.0
DQRL	SN	21	329	ES		1252	42.73	0.03							1.0
SHBL	BZ	22	166	EP		1252	40.30	0.03	25						1.0
SHBL	BN	22	166	ES		1252	42.90	0.00							1.0

June 7 2013 Hour: 12:5411.0 Agency: REL Distant
 EMSC OT=12:54:11.0 23.94S 179.04E 570Km M=5.9 FIJI ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1312	48.17								
BHL	BZ			EP		1312	48.10								
SHBL	BZ			EP		1312	47.95								
QRWL	SZ			EP		1312	49.20								
DQRL	SZ			EP		1312	50.02								

June 7 2013 Hour: 15:1511.5 Lat: 33.79N Lon: 35.77E 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	320	EP		1515	14.23	0.01	31						1.0
BHL	BE	17	320	ES		1515	16.23	-0.03							1.0
DQRL	SZ	21	244	EP		1515	14.87	0.03							1.0
RCY	SZ	33	170	EP		1515	16.77	0.00							1.0
RCY	SN	33	170	ES		1515	20.66	-0.02							1.0
HWQ	SZ	57	16	EP		1515	20.64	0.01							1.0

June 7 2013 Hour: 15:2937.8 Lat: 33.78N Lon: 35.77E Depth: 4 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	321	EP		1529	40.69	-0.08	38						1.0
BHL	BN	17	321	ES		1529	42.96	-0.00							1.0
DQRL	SZ	21	246	EP		1529	41.21	-0.06							1.0
DQRL	SN	21	246	ES		1529	43.91	0.08							1.0
RCY	SZ	32	170	EP		1529	43.09	-0.02							1.0
HWQ	SZ	57	16	EP		1529	47.17	0.08							1.0

June 7 2013 Hour: 20:13 15.0 Agency: REL Distant
EMSC OT=20:13:15.0 43.68S 16.27W 10Km M=5.7 MID-ATLANTIC RIDGE
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 2026 17.36
 SHBL BZ EP 2026 15.58

June 7 2013 Hour: 23:46 49.5 Lat: 33.72N Lon: 35.78E Depth: 4 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
 DQRL SZ 20 265 EP 2346 52.68-0.02 28 1.0
 DQRL SN 20 265 ES 2346 55.11 0.01 1.0
 QRWL SZ 21 205 EP 2346 52.93-0.03 1.0
 QRWL SN 21 205 ES 2346 55.55 0.00 1.0
 BHL BZ 24 330 EP 2346 53.35 0.02 1.0
 BHL BN 24 330 ES 2346 56.19-0.01 1.0
 SHBL BZ 41 185 EP 2346 56.20 0.02 1.0

June 8 2013 Hour: 2:12 1.0 Agency: REL Distant
EMSC OT=02:12:01.0 10.61N 126.87E 60Km M=5.2 PHILIPPINE ISLANDS
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 224 31.31
 SHBL BZ EP 224 31.54

June 8 2013 Hour: 12:58 48.4 Lat: 33.79N Lon: 35.77E 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 17 320 EP 1258 51.28 0.01 47 1.0
 BHL BE 17 320 ES 1258 53.39-0.01 1.0
 DQRL SZ 21 244 EP 1258 51.87-0.01 1.0
 DQRL SE 21 244 ES 1258 54.47 0.01 1.0
 RCY SZ 33 170 EP 1258 53.76-0.03 1.0
 RCY SE 33 170 ES 1258 57.80 0.02 1.0
 HWQ SZ 57 16 EP 1258 57.60 0.01 1.0

June 8 2013 Hour: 13:39 0.1 Lat: 33.38N Lon: 35.62E Depth: 1 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.3 secs
MOUNT HERMON REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 SHBL BZ 12 105 EP 1339 2.19 0.03 1.0
 SHBL BN 12 105 ES 1339 3.67 0.00 1.0
 QRWL SZ 20 18 EP 1339 3.36 0.01 1.0
 RCY SZ 24 57 EP 1339 3.99-0.07 44 1.0
 DQRL SZ 37 353 EP 1339 6.02-0.03 1.0
 DQRL SN 37 353 ES 1339 10.45 0.01 1.0
 BHL BZ 59 3 EP 1339 9.51-0.06 1.0
 HWQ SZ 104 17 EP 1339 18.63 1.66 0.2

June 8 2013 Hour: 15:37 8.7 Lat: 33.78N Lon: 35.80E Depth: 6 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 19 315 EP 1537 11.92-0.01 41 1.0
 DQRL SZ 23 247 EP 1537 12.58 0.03 1.0
 DQRL SN 23 247 ES 1537 15.41-0.01 1.0
 QRWL SZ 28 202 EP 1537 13.39-0.03 1.0
 RCY SZ 32 174 EP 1537 14.03-0.00 1.0
 RCY SN 32 174 ES 1537 18.00 0.01 1.0
 HWQ SZ 56 14 EP 1537 17.90 0.04 0.2

June 8 2013 Hour: 16:19 58.0 Lat: 33.45N Lon: 35.66E Depth: 0 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
QRWL	SZ	11	11	EP		1619	59.69	-0.09							1.0
QRWL	SN	11	11	ES		1620	1.12	0.03							1.0
SHBL	BZ	14	146	EP		1620	0.29	-0.00							1.0
SHBL	BN	14	146	ES		1620	1.97	-0.01							1.0
RCY	SZ	17	73	EP		1620	0.84	0.04	37						1.0
DQRL	SZ	29	344	EP		1620	2.86	0.10							1.0
DQRL	SN	29	344	ES		1620	6.26	-0.00							1.0
BHL	BZ	50	359	EP		1620	6.04	-0.07							1.0

June 8 2013 Hour: 16:35 30.1 Lat: 33.85N Lon: 35.87E Depth: 17 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
BHL	BZ	20	287	EP		1635	34.51	0.01	33						1.0
BHL	BE	20	287	ES		1635	37.71	-0.03							1.0
DQRL	SZ	32	240	EP		1635	35.95	0.01							1.0
QRWL	SZ	38	207	EP		1635	36.79	0.04							1.0
RCY	SZ	39	184	EP		1635	37.07	0.04							1.0
RCY	SN	39	184	ES		1635	42.13	-0.02							1.0
HWQ	SZ	48	9	EP		1635	38.19	-0.04							0.2
SHBL	BZ	57	191	EP		1635	39.50	-0.04							1.0
SHBL	BN	57	191	ES		1635	46.51	-0.01							1.0

June 8 2013 Hour: 22:51 9.8 Lat: 33.79N Lon: 35.80E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	313	EP		2251	12.75	0.02	39						1.0
BHL	BN	18	313	ES		2251	14.91	0.01							1.0
DQRL	SZ	23	246	EP		2251	13.47	-0.06							1.0
DQRL	SN	23	246	ES		2251	16.28	-0.01							1.0
RCY	SZ	33	174	EP		2251	15.02	-0.09							1.0
RCY	SN	33	174	ES		2251	19.04	-0.01							1.0
SHBL	BZ	50	186	EP		2251	17.68	-0.09							1.0
HWQ	SZ	56	14	EP		2251	18.78	0.02							1.0

June 9 2013 Hour: 9:10 23.9 Lat: 32.90N Lon: 34.69E Depth: 8 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
DQRL	SZ	121	42	EP		910	43.08	0.06							1.0
DQRL	SE	121	42	ES		910	57.21	0.02							1.0
RCY	SZ	125	58	EP		910	43.71	0.02	52						1.0
RCY	SN	125	58	ES		910	58.33	-0.02							1.0
BHL	BZ	143	39	EP		910	46.13	-0.09							1.0

June 10 2013 Hour: 15:17 41.0 Lat: 33.45N Lon: 35.62E 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	12	29	EP		1517	43.01	-0.02							1.0
SHBL	BZ	16	134	EP		1517	43.69	0.02							1.0
SHBL	BE	16	134	ES		1517	45.61	-0.02							1.0
RCY	SZ	21	76	EP		1517	44.42	0.00	23						1.0
RCY	SN	21	76	ES		1517	46.93	0.01							1.0
DQRL	SZ	29	351	EP		1517	45.67	0.01							1.0

June 10 2013 Hour: 15:36 46.9 Lat: 33.99N Lon: 36.20E Depth: 32 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

HERMEL BAALBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	40	324	EP		1536	54.86	0.00	46						1.0
HWQ	SE	40	324	ES		1537	0.75	0.01							1.0
BHL	BZ	52	260	EP		1536	56.19	-0.08							1.0
RCY	SZ	64	212	EP		1536	57.97	-0.01							1.0
RCY	SE	64	212	ES		1537	6.18	0.00							1.0
DQRL	SZ	66	242	EP		1536	58.31	0.08							1.0

June 10 2013 Hour: 22:46 31.7 Lat: 33.83N Lon: 35.77E Depth: 24 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	13	305	EP		2246	36.14	0.05	33						1.0
BHL	BN	13	305	ES		2246	39.33	-0.03							1.0
DQRL	SZ	24	233	EP		2246	36.96	-0.05							1.0
DQRL	SN	24	233	ES		2246	41.00	0.04							1.0
HWQ	SZ	52	18	EP		2246	40.69	0.09							0.2
SHBL	BZ	54	183	EP		2246	40.92	-0.00							1.0

June 10 2013 Hour: 23:27 53.0 Lat: 33.92N Lon: 36.08E 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
BHL	BZ	40	268	EP		2327	59.38	-0.04	24						1.0
BHL	BN	40	268	ES		2328	4.18	-0.01							1.0
HWQ	SZ	42	342	EP		2327	59.72	-0.00							1.0
RCY	SZ	52	206	EP		2328	1.43	-0.00							1.0
RCY	SE	52	206	ES		2328	7.66	-0.02							1.0
DQRL	SZ	53	244	EP		2328	1.65	0.07							1.0

June 11 2013 Hour: 16:21 55.5 Lat: 33.54N Lon: 35.70E 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
QRWL	SZ	2	299	EP		1621	55.82	-0.04							1.0
RCY	SZ	13	110	EP		1621	57.61	-0.05	45						1.0
RCY	SN	13	110	ES		1621	59.27	0.01							1.0
SHBL	BZ	22	169	EP		1621	59.02	0.05							1.0
SHBL	BN	22	169	ES		1622	1.52	-0.02							1.0
DQRL	SZ	22	327	EP		1621	59.11	0.03							1.0
DQRL	SN	22	327	ES		1622	1.72	-0.01							1.0
BHL	BZ	41	354	EP		1622	2.09	0.01							1.0

June 11 2013 Hour: 17:14 36.0 Lat: 32.56N Lon: 35.58E Depth: 2 Agency: REL Regional
Magnitudes: 3.2MC REL Rms: 0.2 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	89	10	EP		1714	50.45	0.02							1.0
SHBL	BN	89	10	ES		1715	1.13	0.06							1.0
RCY	SZ	107	13	EP		1714	53.17	-0.12							1.0
QRWL	SZ	110	5	EP		1714	53.68	-0.17							1.0
DQRL	SZ	127	359	EP		1714	56.62	0.09							1.0
DQRL	SN	127	359	ES		1715	11.65	-0.05							1.0
BHL	BZ	150	2	EP		1714	59.75	-0.04	69						1.0
HWQ	SZ	194	10	EP		1715	6.47	0.46							0.2

June 12 2013 Hour: 15:22 43.4 Lat: 33.45N Lon: 35.64E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	12	21	EP		1522	45.21	-0.10							1.0
QRWL	SN	12	21	ES		1522	46.76	0.03							1.0
SHBL	BZ	15	138	EP		1522	45.84	0.02							1.0
SHBL	BN	15	138	ES		1522	47.61	-0.01							1.0
RCY	SZ	19	74	EP		1522	46.54	0.02	30						1.0
DQRL	SZ	29	348	EP		1522	48.14	0.03							1.0

June 12 2013 Hour: 15:35 38.3 Lat: 33.80N Lon: 35.77E Depth: 13 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	317	EP		1535	41.73	0.00	43						1.0
BHL	BE	16	317	ES		1535	44.27	-0.01							1.0
DQRL	SZ	21	241	EP		1535	42.43	0.01							1.0
DQRL	SN	21	241	ES		1535	45.50	0.00							1.0
RCY	SZ	34	170	EP		1535	44.31	0.03							1.0
RCY	SE	34	170	ES		1535	48.72	-0.01							1.0
SHBL	BZ	50	183	EP		1535	46.68	-0.03							1.0

June 12 2013 Hour: 17:31 42.2 Lat: 34.26N Lon: 35.66E Depth: 33 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

NORTH LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	26	85	EP		1731	48.78	-0.09							1.0
HWQ	SN	26	85	ES		1731	53.86	0.06							1.0
BHL	BZ	39	181	EP		1731	50.18	0.00	41						1.0
BHL	BE	39	181	ES		1731	56.02	-0.05							1.0
DQRL	SZ	62	188	EP		1731	53.08	0.09							1.0
SHBL	BZ	101	176	EP		1731	57.96	-0.01							1.0

June 12 2013 Hour: 19:2 52.0 Agency: REL Regional
EMSC OT=19:02:52.0 38.62N 43.62E 14Km M=4.5 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		19 4	45.09								
BHL	BZ			EP		19 4	53.66								
DQRL	SZ			EP		19 4	54.55								
SHBL	BZ			EP		19 4	56.00								

June 12 2013 Hour: 23:54 11.2 Lat: 33.49N 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	8	30	EP		2354	12.45	-0.04							1.0
SHBL	BZ	18	147	EP		2354	14.11	-0.01							1.0
SHBL	BN	18	147	ES		2354	16.25	-0.03							1.0
RCY	SZ	18	86	EP		2354	14.19	0.04	39						1.0
DQRL	SZ	25	345	EP		2354	15.35	0.08							1.0
DQRL	SN	25	345	ES		2354	18.22	-0.07							1.0
BHL	BZ	46	2	EP		2354	18.72	0.03							1.0

June 13 2013 Hour: 9:56 49.4 Lat: 33.40N 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
SHBL	BZ	9	127	EP		956	50.97	0.00							1.0
QRWL	SZ	17	5	EP		956	52.09	-0.02							1.0
RCY	SZ	19	55	EP		956	52.53	-0.00	32						1.0
RCY	SN	19	55	ES		956	54.88	0.00							1.0
DQRL	SZ	35	346	EP		956	55.09	0.01							1.0

DQRL SN 35 346 ES 956 59.31 0.00 1.0

June 13 2013 Hour: 13:24 43.0 Agency: REL Distant

EMSC OT=13:24:43.0 26.57N 128.88E 2Km M=5.7 RYUKYU ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1336	43.94								
RCY	SZ			EP		1336	44.88								

June 13 2013 Hour: 15:55 42.8 Lat: 33.79N Lon: 35.78E Depth: 2 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	316	EP		1555	45.58-0.04		32						1.0
BHL	BN	17	316	ES		1555	47.70-0.01								1.0
DQRL	SZ	22	244	EP		1555	46.34-0.06								1.0
DQRL	SN	22	244	ES		1555	49.13 0.06								1.0
RCY	SZ	33	172	EP		1555	48.18-0.01								1.0
HWQ	SZ	56	15	EP		1555	51.86 0.05								1.0

June 13 2013 Hour: 16:47 23.0 Agency: REL Distant

EMSC OT=16:47:23.0 9.96S 107.27E 3Km M=6.7 SOUTH OF JAVA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1659	36.87								
RCY	SZ			EP		1659	37.14								
SHBL	BZ			EP		1659	37.31								
QRWL	SZ			EP		1659	37.67								
BHL	BZ			EP		1659	38.28								
DQRL	SZ			EP		1659	38.55								
BEYL	BZ			EP		1659	38.28								

June 14 2013 Hour: 14: 2 50.1 Lat: 33.32N Lon: 35.45E Depth: 4 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
RCY	SZ	41	61	EP		14 2	56.83-0.01								1.0
RCY	SN	41	61	ES		14 3	1.79 0.00								1.0
DQRL	SZ	45	14	EP		14 2	57.40 0.00		30						1.0
DQRL	SE	45	14	ES		14 3	2.76-0.00								1.0
HWQ	SZ	116	23	EP		14 3	8.85 0.00								1.0

June 14 2013 Hour: 16:32 15.0 Lat: 33.79N Lon: 35.77E 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	319	EP		1632	17.72-0.04		31						1.0
DQRL	SZ	21	244	EP		1632	18.44 0.01								1.0
DQRL	SE	21	244	ES		1632	20.96 0.01								1.0
RCY	SZ	33	170	EP		1632	20.32-0.03								1.0
RCY	SE	33	170	ES		1632	24.30 0.01								1.0
HWQ	SZ	57	16	EP		1632	24.18 0.04								1.0

June 15 2013 Hour: 9:35 3.0 Lat: 33.35N Lon: 35.59E Depth: 14 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	14	91	EP		935	6.43-0.02								1.0
SHBL	BN	14	91	ES		935	9.00 0.02								1.0
QRWL	SZ	23	21	EP		935	7.50-0.04								1.0
RCY	SZ	28	54	EP		935	8.20 0.02		37						1.0
RCY	SN	28	54	ES		935	11.98-0.01								1.0
DQRL	SZ	40	357	EP		935	9.85 0.02								1.0
DQRL	SN	40	357	ES		935	14.87 0.00								1.0

June 15 2013 Hour: 11:0 23.5 Lat: 33.51N Lon: 35.67E Depth: 0 Agency: REL Local
Magnitudes: 2.3MC 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	5	17	EP		11	0	24.20	-0.05						1.0
RCY	SZ	16	95	EP		11	0	26.09	0.05	24					1.0
RCY	SN	16	95	ES		11	0	27.91	-0.01						1.0
SHBL	BZ	19	158	EP		11	0	26.54	-0.05						1.0
SHBL	BN	19	158	ES		11	0	28.90	0.02						1.0
DQRL	SZ	24	338	EP		11	0	27.36	0.04						1.0

June 15 2013 Hour: 11:18 23.8 Lat: 33.78N 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	317	EP		1118	26.68	-0.05	42						1.0
BHL	BE	18	317	ES		1118	28.91	-0.03							1.0
DQRL	SZ	22	247	EP		1118	27.30	-0.01							1.0
DQRL	SN	22	247	ES		1118	30.01	0.06							1.0
RCY	SZ	32	172	EP		1118	28.88	-0.04							1.0
HWQ	SZ	57	15	EP		1118	33.00	0.07							1.0

June 15 2013 Hour: 11:20 37.0 Agency: REL Distant

EMSC OT=11:20:37.0 34.01S 179.43E 211Km M=6.1 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		1139	56.51								
BHL	BZ			EP		1139	57.19								

June 15 2013 Hour: 15:13 28.8 Lat: 33.45N Lon: 35.63E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	12	23	EP		1513	30.64	-0.03							1.0
SHBL	BZ	15	137	EP		1513	31.21	-0.03							1.0
SHBL	BE	15	137	ES		1513	33.07	-0.00							1.0
RCY	SZ	20	75	EP		1513	31.97	0.04	31						1.0
DQRL	SZ	29	349	EP		1513	33.51	0.07							1.0
DQRL	SN	29	349	ES		1513	36.85	-0.05							1.0

June 15 2013 Hour: 16:10 59.0 Agency: REL Regional

EMSC OT=16:10:59.0 34.23N 25.00E 10Km M=6.2 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	BZ			EP		1613	4.64								
DQRL	SZ			EP		1613	6.40								
QRWL	SZ			EP		1613	6.26								
BHL	BZ			EP		1613	6.91								
SHBL	BZ			EP		1613	7.36								
RCY	SZ			EP		1613	8.30								
HWQ	SZ			EP		1613	10.55								

June 15 2013 Hour: 16:51 16.0 Agency: REL Regional

EMSC OT=16:51:16.0 34.27N 25.10E 30Km M=4.6 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1653	20.65								
HWQ	SZ			EP		1653	21.31								

June 15 2013 Hour: 23: 8 0.3 Lat: 33.67N Lon: 35.69E Depth: 5 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.0 secs

SAIDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	12	290	EP		23	8	2.55	0.01	27					1.0
DQRL	SN	12	290	ES		23	8	4.18	-0.00						1.0
QRWL	SZ	13	184	EP		23	8	2.70	-0.01						1.0

QRWL	SN	13	184	ES		23	8	4.47	0.00								1.0
BHL	BZ	27	352	EP		23	8	4.72	0.00								1.0

June 16 2013 Hour: 7:55 3.9 Lat: 33.72N Lon: 35.96E Depth: 14 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

CENTRAL BEKAA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	27	205	EP		755	8.92	0.03	39						1.0
RCY	SN	27	205	ES		755	12.56	-0.02							1.0
BHL	BZ	35	307	EP		755	10.05	0.01							1.0
DQRL	SZ	36	268	EP		755	10.17	-0.01							1.0
DQRL	SE	36	268	ES		755	14.82	0.00							1.0
HWQ	SZ	62	359	EP		755	14.06	-0.01							1.0

June 16 2013 Hour: 7:58 32.2 Lat: 33.78N Lon: 36.47E Depth: 29 Agency: REL Local
Magnitudes: 3.2MC 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	242	EP		758	43.42	-0.05							1.0
HWQ	SZ	73	319	EP		758	44.37	0.05							1.0
BHL	BZ	76	280	EP		758	44.70	-0.09	77						1.0
SHBL	BZ	83	234	EP		758	45.80	0.08							1.0
SHBL	BE	83	234	ES		758	55.70	-0.01							1.0
DQRL	SZ	83	264	EP		758	45.80	-0.00							1.0
DQRL	SN	83	264	ES		758	55.88	0.03							1.0

June 16 2013 Hour: 10:45 7.5 Lat: 33.47N Lon: 35.69E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	8	357	EP		1045	8.75	-0.02							1.0
RCY	SZ	14	80	EP		1045	9.71	-0.03	52						1.0
SHBL	BZ	15	159	EP		1045	9.80	-0.09							1.0
SHBL	BN	15	159	ES		1045	11.75	0.06							1.0
DQRL	SZ	28	337	EP		1045	11.98	0.03							1.0
DQRL	SN	28	337	ES		1045	15.21	-0.06							1.0
BHL	BZ	48	356	EP		1045	15.25	0.09							1.0
HWQ	SZ	92	15	EP		1045	22.35	0.01							1.0

June 16 2013 Hour: 13: 7 9.9 Lat: 33.52N Lon: 35.70E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC 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	332	EP		13	7	10.40	-0.07						1.0
RCY	SZ	13	103	EP		13	7	12.08	0.02	35					1.0
RCY	SE	13	103	ES		13	7	13.64	0.01						1.0
DQRL	SZ	24	330	EP		13	7	13.77	0.03						1.0
DQRL	SN	24	330	ES		13	7	16.62	0.07						1.0
BHL	BZ	43	354	EP		13	7	16.73	-0.07						1.0

June 16 2013 Hour: 19: 3 55.8 Lat: 33.47N Lon: 36.11E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC 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	25	277	EP		19	3	59.81	-0.04	39					1.0
SHBL	BZ	36	249	EP		19	4	1.63	0.03						1.0
SHBL	BN	36	249	ES		19	4	5.93	-0.00						1.0
DQRL	SZ	56	298	EP		19	4	4.82	-0.01						1.0
DQRL	SE	56	298	ES		19	4	11.56	0.01						1.0
BHL	BZ	64	319	EP		19	4	6.09	0.02						1.0

June 16 2013 Hour: 20:31 38.0 Agency: REL Regional

EMSC OT=20:31:38.0 38.09N 37.11E 5Km M=4.2 CENTRAL TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		2032	41.78								
BHL	BZ			EP		2032	46.10								
DQRL	SZ			EP		2032	50.34								
SHBL	BZ			EP		2032	54.99								

June 16 2013 Hour: 21:39 4.0 Agency: REL Regional

EMSC OT=21:39:04.0 34.30N 25.03E 10Km M=5.8 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	BZ			EP		2141	6.39								
DQRL	SZ			EP		2141	7.22								
BHL	BZ			EP		2141	6.10								
QRWL	SZ			EP		2141	9.33								
RCY	SZ			EP		2141	11.95								
SHBL	BZ			EP		2141	10.32								
HWQ	SZ			EP		2141	12.68								

June 17 2013 Hour: 6:45 37.4 Lat: 33.88N Lon: 35.80E Depth: 12 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	14	281	EP		645	40.59	0.07	60						1.0
BHL	BN	14	281	ES		645	42.83	-0.00							1.0
BEYL	BZ	29	268	EP		645	42.07	-0.38							0.2
DQRL	SZ	29	228	EP		645	42.54	-0.02							1.0
DQRL	SE	29	228	ES		645	46.39	0.02							1.0
RCY	SZ	43	176	EP		645	44.52	-0.12							1.0
HWQ	SZ	46	17	EP		645	45.15	0.02							1.0
HWQ	SN	46	17	ES		645	50.88	0.03							1.0
SHBL	BZ	59	185	EP		645	47.25	0.03							1.0

June 17 2013 Hour: 13:35 40.8 Lat: 33.51N Lon: 35.67E 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	5	17	EP		1335	41.46	-0.04							1.0
RCY	SZ	16	95	EP		1335	43.30	0.02	26						1.0
RCY	SN	16	95	ES		1335	45.16	0.01							1.0
SHBL	BZ	19	158	EP		1335	43.80	-0.04							1.0
SHBL	BN	19	158	ES		1335	46.15	0.02							1.0
DQRL	SZ	24	337	EP		1335	44.62	0.04							1.0

June 17 2013 Hour: 16:25 34.3 Lat: 33.53N Lon: 35.71E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

CENTRAL BEKAA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	3	313	EP		1625	34.75	-0.08							1.0
RCY	SZ	13	107	EP		1625	36.34	-0.07	41						1.0
RCY	SN	13	107	ES		1625	37.97	0.04							1.0
SHBL	BZ	21	170	EP		1625	37.69	0.03							1.0
SHBL	BN	21	170	ES		1625	40.11	-0.00							1.0
DQRL	SZ	23	327	EP		1625	38.15	0.07							1.0
DQRL	SN	23	327	ES		1625	40.86	0.02							1.0
BHL	BZ	42	354	EP		1625	41.07	-0.01							1.0

June 18 2013 Hour: 10:47 6.3 Lat: 33.78N 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	17	321	EP		1047	9.09-0.00		44						1.0
BHL	BN	17	321	ES		1047	11.10-0.04								1.0
DQRL	SZ	21	245	EP		1047	9.68 0.05								1.0
RCY	SZ	32	169	EP		1047	11.54-0.02								1.0
RCY	SE	32	169	ES		1047	15.41-0.02								1.0
HWQ	SZ	57	16	EP		1047	15.57 0.03								1.0

June 18 2013 Hour: 15:58 34.4 Lat: 33.78N Lon: 35.78E 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	18	321	EP		1558	37.19-0.08		57						1.0
DQRL	SZ	21	247	EP		1558	37.77 0.03								1.0
DQRL	SE	21	247	ES		1558	40.24 0.03								1.0
RCY	SZ	32	170	EP		1558	39.50-0.07								1.0
RCY	SN	32	170	ES		1558	43.38-0.00								1.0
HWQ	SZ	58	16	EP		1558	43.75 0.07								1.0

June 18 2013 Hour: 22:27 5.0 Agency: REL Regional

EMSC OT=22:27:05.0 34.21N 25.01E 20Km M=4.6 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		2229	9.18								
BHL	BZ			EP		2229	10.79								
SHBL	BZ			EP		2229	11.82								
HWQ	SZ			EP		2229	13.23								

June 18 2013 Hour: 23: 2 8.0 Agency: REL Distant

EMSC OT=23:02:08.0 54.27N 86.27E 2Km M=5.2 S-W SIBERIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		23 9	45.98								
BHL	BZ			EP		23 9	49.41								
RCY	SZ			EP		23 9	51.15								
SHBL	BZ			EP		23 9	52.78								

June 19 2013 Hour: 9: 9 47.1 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		913	22.55								
RCY	SZ			EP		913	24.70								
DQRL	SZ			EP		913	26.35								

June 19 2013 Hour: 9:57 58.7 Lat: 33.87N Lon: 35.84E 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	17	283	EP		958	1.46-0.04		38						1.0
DQRL	SZ	31	234	EP		958	3.69 0.05								1.0
DQRL	SE	31	234	ES		958	7.29-0.00								1.0
RCY	SZ	41	180	EP		958	5.33-0.04								1.0
RCY	SE	41	180	ES		958	10.31 0.00								1.0
HWQ	SZ	47	13	EP		958	6.22 0.02								1.0

June 19 2013 Hour: 14:43 45.2 Lat: 33.79N Lon: 35.78E Depth: 2 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	317	EP		1443	47.98-0.01		33						1.0
BHL	BE	17	317	ES		1443	50.06 0.00								1.0
DQRL	SZ	22	244	EP		1443	48.77 0.02								1.0
DQRL	SN	22	244	ES		1443	51.38-0.00								1.0

RCY	SZ	33	171	EP		1443	50.58	-0.03											1.0
RCY	SE	33	171	ES		1443	54.63	0.02											1.0
HWQ	SZ	56	16	EP		1443	54.25	0.01											1.0

June 19 2013 Hour: 19: 5 8.0 Agency: REL Regional

EMSC OT=19:05:08.0 34.28N 25.10E 10Km M=4.7 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		19	7	14.79							
SHBL	BZ			EP		19	7	16.44							
HWQ	SZ			EP		19	7	16.79							

June 19 2013 Hour: 22:44 0.0 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		2244	55.50								
DQRL	SZ			EP		2244	55.50								

**June 19 2013 Hour: 23:13 55.4 Lat: 33.94N Lon: 37.17E Depth: 18 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.1 secs**

DAMASCUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	119	289	EP		2314	13.84	0.00							1.0
HWQ	SE	119	289	ES		2314	27.55	0.05							1.0
BHL	BZ	140	269	EP		2314	16.85	-0.08							1.0
SHBL	BZ	147	244	EP		2314	18.08	0.03	57						1.0
SHBL	BN	147	244	ES		2314	34.89	0.06							1.0
DQRL	SZ	150	261	EP		2314	18.37	0.03							1.0
DQRL	SN	150	261	ES		2314	35.24	-0.09							1.0

**June 20 2013 Hour: 0:41 44.4 Lat: 34.10N Lon: 36.37E Depth: 12 Agency: REL Local
Magnitudes: 2.9MC 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	SZ	44	297	EP		041	51.83	-0.03	52						1.0
HWQ	SN	44	297	ES		041	57.38	0.02							1.0
BHL	BZ	70	252	EP		041	55.82	0.04							1.0
BHL	BN	70	252	ES		042	4.17	-0.01							1.0
RCY	SZ	83	217	EP		041	57.68	-0.12							1.0
DQRL	SZ	86	240	EP		041	58.20	0.02							1.0
DQRL	SN	86	240	ES		042	8.33	-0.03							1.0
SHBL	BZ	102	215	EP		042	0.57	0.07							1.0
SHBL	BN	102	215	ES		042	12.42	0.03							1.0

**June 20 2013 Hour: 15:57 32.3 Lat: 33.45N Lon: 35.63E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs**

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	12	25	EP		1557	34.14	-0.06	30						1.0
QRWL	SN	12	25	ES		1557	35.59	-0.00							1.0
SHBL	BZ	16	137	EP		1557	34.80	-0.05							1.0
SHBL	BN	16	137	ES		1557	36.75	0.03							1.0
RCY	SZ	20	76	EP		1557	35.55	0.05							1.0
RCY	SN	20	76	ES		1557	37.86	-0.01							1.0
DQRL	SZ	29	349	EP		1557	36.98	0.04							1.0

**June 21 2013 Hour: 11:40 45.7 Lat: 33.72N Lon: 35.29E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs**

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	26	93	EP		1140	49.88	-0.05							1.0
DQRL	SN	26	93	ES		1140	53.04	0.00							1.0
BHL	BZ	40	58	EP		1140	52.07	-0.05							1.0
QRWL	SZ	41	117	EP		1140	52.31	-0.02							1.0
QRWL	SE	41	117	ES		1140	57.23	0.01							1.0
RCY	SZ	56	116	EP		1140	54.83	0.03	42						1.0

RCY	SE	56	116	ES	1141	1.53	0.01											1.0
HWQ	SZ	87	44	EP	1140	59.81	0.06											1.0

June 21 2013 Hour: 15:29 35.3 Lat: 33.53N Lon: 35.70E 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
QRWL	SZ	3	318	EP		1529	35.78	-0.03							1.0
RCY	SZ	13	106	EP		1529	37.38	-0.03	47						1.0
RCY	SN	13	106	ES		1529	38.99	0.03							1.0
SHBL	BZ	20	169	EP		1529	38.64	0.03							1.0
SHBL	BN	20	169	ES		1529	41.05	0.00							1.0
DQRL	SZ	23	328	EP		1529	38.99	-0.07							1.0
DQRL	SN	23	328	ES		1529	41.93	0.10							1.0
BHL	BZ	42	354	EP		1529	42.03	-0.05							1.0
HWQ	SZ	86	15	EP		1529	49.23	0.02							1.0

June 21 2013 Hour: 18:26 41.0 Agency: REL Regional
EMSC OT=18:26:41.0 36.54N 27.87E 89Km M=4.2 DODECANESE-TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1828	17.02								
QRWL	SZ			EP		1828	19.55								
RCY	SZ			EP		1828	21.27								
SHBL	BZ			EP		1828	22.07								

June 23 2013 Hour: 10:31 10.8 Lat: 33.47N Lon: 35.67E Depth: 2 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	6	EP		1031	12.35	-0.01							1.0
SHBL	BZ	15	154	EP		1031	13.36	0.01							1.0
SHBL	BN	15	154	ES		1031	15.19	-0.01							1.0
RCY	SZ	16	79	EP		1031	13.41	-0.01	41						1.0
RCY	SN	16	79	ES		1031	15.34	0.01							1.0
DQRL	SZ	28	340	EP		1031	15.37	-0.01							1.0
DQRL	SN	28	340	ES		1031	18.74	0.01							1.0

June 23 2013 Hour: 15:56 54.4 Lat: 33.45N Lon: 35.64E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	11	22	EP		1556	56.21	-0.03							1.0
QRWL	SN	11	22	ES		1556	57.58	-0.00							1.0
SHBL	BZ	15	140	EP		1556	56.89	-0.02							1.0
SHBL	BN	15	140	ES		1556	58.76	0.01							1.0
RCY	SZ	19	76	EP		1556	57.52	0.02	28						1.0
DQRL	SZ	29	347	EP		1556	59.08	0.03							1.0

June 24 2013 Hour: 10:58 22.9 Lat: 33.39N Lon: 35.64E 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
SHBL	BZ	11	115	EP		1058	24.66	-0.06							1.0
SHBL	BN	11	115	ES		1058	26.09	0.03							1.0
QRWL	SZ	18	14	EP		1058	25.73	-0.06							1.0
RCY	SZ	22	58	EP		1058	26.50	0.05	35						1.0
RCY	SN	22	58	ES		1058	29.06	-0.02							1.0
DQRL	SZ	35	350	EP		1058	28.66	0.05							1.0

June 24 2013 Hour: 18:23 4.8 Lat: 33.45N Lon: 35.51E Depth: 13 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	20	56	EP		1823	8.62	-0.02	29						1.0
QRWL	SN	20	56	ES		1823	11.48	-0.02							1.0
SHBL	BZ	25	117	EP		1823	9.33	-0.05							1.0
SHBL	BN	25	117	ES		1823	12.84	0.04							1.0
DQRL	SZ	29	12	EP		1823	9.99	0.03							1.0
RCY	SZ	31	80	EP		1823	10.29	0.02							1.0
RCY	SN	31	80	ES		1823	14.35	0.00							1.0

June 24 2013 Hour: 22: 4 13.0 Agency: REL Distant

EMSC OT=22:04:13.0 10.74N 42.60W 10Km M=6.5 MID-ATLANTIC RIDGE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2215	50.39								
BEYL	BZ			EP		2215	51.96								
DQRL	SZ			EP		2215	51.00								
QRWL	SZ			EP		2215	51.96								
RCY	SZ			EP		2215	53.10								
SHBL	BZ			EP		2215	52.22								

June 25 2013 Hour: 5: 4 10.2 Lat: 33.44N Lon: 35.53E Depth: 4 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	19	52	EP		5 4	13.26	-0.02							1.0
SHBL	BZ	23	118	EP		5 4	13.98	-0.01							1.0
SHBL	BN	23	118	ES		5 4	16.82	-0.00							1.0
DQRL	SZ	29	8	EP		5 4	15.01	0.04							1.0
DQRL	SN	29	8	ES		5 4	18.52	-0.00							1.0
RCY	SZ	29	79	EP		5 4	15.03	0.03	37						1.0
RCY	SN	29	79	ES		5 4	18.58	0.00							1.0
BHL	BZ	52	13	EP		5 4	18.61	-0.04							1.0

June 25 2013 Hour: 16:49 29.3 Lat: 33.81N Lon: 35.78E Depth: 13 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	313	EP		1649	32.74	-0.01	43						1.0
BHL	BN	16	313	ES		1649	35.33	0.00							1.0
DQRL	SZ	22	240	EP		1649	33.46	-0.11							1.0
DQRL	SN	22	240	ES		1649	36.83	0.07							1.0
RCY	SZ	35	171	EP		1649	35.38	0.02							1.0
HWQ	SZ	55	16	EP		1649	38.34	0.03							1.0

June 25 2013 Hour: 17: 4 35.1 Lat: 33.81N Lon: 35.78E Depth: 15 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	312	EP		17 4	38.76	0.01	41						1.0
BHL	BN	16	312	ES		17 4	41.45	0.01							1.0
DQRL	SZ	23	240	EP		17 4	39.51	-0.06							1.0
DQRL	SN	23	240	ES		17 4	42.88	0.02							1.0
RCY	SZ	35	172	EP		17 4	41.26	-0.02							1.0
SHBL	BZ	51	184	EP		17 4	43.71	0.06							1.0
SHBL	BN	51	184	ES		17 4	49.95	-0.01							1.0
HWQ	SZ	54	16	EP		17 4	44.12	-0.00							1.0

June 26 2013 Hour: 7:51 27.0 Lat: 33.80N Lon: 35.74E Depth: 13 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	14	326	EP		751	30.27	0.02	39						1.0
BHL	BE	14	326	ES		751	32.67	-0.01							1.0
DQRL	SZ	19	236	EP		751	30.82	-0.00							1.0
RCY	SZ	35	165	EP		751	33.06	-0.02							1.0
RCY	SN	35	165	ES		751	37.63	0.01							1.0
HWQ	SZ	56	20	EP		751	36.26	-0.00							1.0

June 26 2013 Hour: 10:28 17.7 Lat: 33.37N Lon: 35.57E Depth: 8 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	17	98	EP		1028	20.79	-0.01							1.0
SHBL	BN	17	98	ES		1028	23.13	0.01							1.0
QRWL	SZ	23	28	EP		1028	21.59	-0.03							1.0
QRWL	SN	23	28	ES		1028	24.53	-0.01							1.0
RCY	SZ	29	60	EP		1028	22.56	-0.01	38						1.0
RCY	SN	29	60	ES		1028	26.20	0.01							1.0
DQRL	SZ	37	0	EP		1028	23.92	0.03							1.0
BHL	BZ	60	8	EP		1028	27.46	0.00							1.0

June 26 2013 Hour: 11:57 11.8 Lat: 33.78N Lon: 35.76E 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	324	EP		1157	14.47	-0.06	58						1.0
BHL	BN	17	324	ES		1157	16.55	0.00							1.0
DQRL	SZ	20	245	EP		1157	15.06	0.09							1.0
DQRL	SN	20	245	ES		1157	17.28	-0.04							1.0
QRWL	SZ	27	196	EP		1157	16.09	-0.05							1.0
QRWL	SN	27	196	ES		1157	19.42	0.06							1.0
RCY	SZ	32	168	EP		1157	16.96	-0.05							1.0
SHBL	BZ	48	182	EP		1157	19.60	0.06							1.0
SHBL	BN	48	182	ES		1157	25.23	-0.05							1.0
HWQ	SZ	58	17	EP		1157	21.13	0.03							1.0

June 26 2013 Hour: 15:53 3.0 Lat: 33.37N Lon: 35.42E Depth: 0 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	31	94	EP		15 5	37.91	-0.04							1.0
SHBL	BN	31	94	ES		15 5	41.65	0.02							1.0
DQRL	SZ	40	21	EP		15 5	39.40	-0.03							1.0
DQRL	SN	40	21	ES		15 5	44.16	-0.03							1.0
RCY	SZ	42	70	EP		15 5	39.70	-0.00	40						1.0
HWQ	SZ	112	26	EP		15 5	51.14	0.08							1.0

June 26 2013 Hour: 22:59 4.0 Agency: REL Distant

EMSC OT=22:59:04.0 0.17S 125.08E 60Km M=5.8 MOLUCCA SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		2311	55.26								
RCY	SZ			EP		2311	55.90								
SHBL	BZ			EP		2311	56.12								
BHL	BZ			EP		2311	56.11								
QRWL	SZ			EP		2311	56.27								
DQRL	SZ			EP		2311	56.58								

June 26 2013 Hour: 23:53 48.9 Lat: 33.78N Lon: 35.77E Depth: 0 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	324	EP		2353	51.64	-0.13	50						1.0
BHL	BN	18	324	ES		2353	53.91	0.03							1.0
DQRL	SZ	20	247	EP		2353	52.15	0.05							1.0
QRWL	SZ	26	197	EP		2353	53.21	0.03							1.0
QRWL	SN	26	197	ES		2353	56.34	0.01							1.0
BEYL	BZ	27	293	EP		2353	53.25	-0.09							0.2
RCY	SZ	32	168	EP		2353	54.00	-0.02							1.0
SHBL	BZ	47	182	EP		2353	56.56	-0.00							1.0
SHBL	BN	47	182	ES		2354	2.19	-0.03							1.0
HWQ	SZ	58	17	EP		2353	58.37	0.06							1.0

June 27 2013 Hour: 6:55 51.6 Lat: 33.56N Lon: 35.83E Depth: 13 Agency: REL Local
Magnitudes: 2.3MC 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	14	263	EP		655	54.87	0.06	23						1.0
QRWL	SE	14	263	ES		655	57.12	-0.03							1.0
SHBL	BZ	25	198	EP		655	56.37	0.05							1.0
SHBL	BN	25	198	ES		655	59.75	-0.03							1.0
DQRL	SZ	29	304	EP		655	56.70	-0.11							1.0
DQRL	SN	29	304	ES		656	0.70	0.06							1.0

June 27 2013 Hour: 16:23 24.2 Lat: 33.79N Lon: 35.78E Depth: 6 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	318	EP		1623	27.22	0.01	34						1.0
BHL	BN	17	318	ES		1623	29.45	-0.01							1.0
DQRL	SZ	22	245	EP		1623	27.84	0.01							1.0
RCY	SZ	33	171	EP		1623	29.55	-0.04							1.0
RCY	SN	33	171	ES		1623	33.62	0.02							1.0
HWQ	SZ	56	16	EP		1623	33.35	0.01							1.0

June 27 2013 Hour: 23: 3 2.0 Agency: REL Regional

EMSC OT=23:03:02.0 36.65N 31.27E 80Km M=3.9 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		23 4	7.10								
BHL	BZ			EP		23 4	6.39								
DQRL	SZ			EP		23 4	7.64								
RCY	SZ			EP		23 4	12.51								
SHBL	BZ			EP		23 4	13.33								

June 28 2013 Hour: 3: 1 0.2 Lat: 34.33N Lon: 34.61E Depth: 17 Agency: REL Regional
Magnitudes: 3.5MC REL Rms: 0.0 secs

EAST MED SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	107	116	EP		3 1	16.98	-0.06							1.0
BHL	BE	107	116	ES		3 1	29.46	-0.01							1.0
DQRL	SZ	113	128	EP		3 1	17.85	0.03	102						1.0
DQRL	SE	113	128	ES		3 1	30.87	0.05							1.0
HWQ	SZ	123	92	EP		3 1	19.41	0.04							1.0
RCY	SZ	146	129	EP		3 1	22.76	-0.04							1.0
RCY	SN	146	129	ES		3 1	39.44	-0.06							1.0
SHBL	BZ	151	136	EP		3 1	23.59	0.05							1.0
SHBL	BN	151	136	ES		3 1	40.79	0.01							1.0

June 28 2013 Hour: 10:52 42.8 Lat: 33.36N Lon: 35.61E Depth: 18 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
SHBL	BZ	12	94	EP		1052	46.39	-0.07							1.0
SHBL	BN	12	94	ES		1052	49.20	0.03							1.0
QRWL	SZ	22	17	EP		1052	47.52	0.09							1.0
QRWL	SN	22	17	ES		1052	50.84	-0.01							1.0
RCY	SZ	26	53	EP		1052	47.92	-0.01	36						1.0
DQRL	SZ	39	354	EP		1052	49.67	0.02							1.0
DQRL	SN	39	354	ES		1052	54.67	-0.04							1.0

June 28 2013 Hour: 15:11 49.2 Lat: 33.45N Lon: 35.64E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.1 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	12	21	EP		1511	51.02	-0.12							1.0
QRWL	SE	12	21	ES		1511	52.60	0.02							1.0
SHBL	BZ	15	137	EP		1511	51.59	-0.00							1.0
SHBL	BN	15	137	ES		1511	53.38	0.01							1.0
RCY	SZ	19	73	EP		1511	52.36	0.04	31						1.0
DQRL	SZ	29	348	EP		1511	53.96	0.02							1.0
DQRL	SN	29	348	ES		1511	57.49	0.04							1.0

June 28 2013 Hour: 16:39 24.9 Lat: 33.79N Lon: 35.76E Depth: 1 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	322	EP		1639	27.43	-0.04	41						1.0
DQRL	SZ	20	241	EP		1639	28.16	-0.02							1.0
DQRL	SN	20	241	ES		1639	30.62	0.04							1.0
RCY	SZ	34	168	EP		1639	30.33	-0.04							1.0
RCY	SE	34	168	ES		1639	34.42	0.02							1.0
HWQ	SZ	56	18	EP		1639	34.08	0.05							1.0

June 29 2013 Hour: 10:21 10.0 Lat: 33.35N Lon: 35.61E Depth: 19 Agency: REL Local
Magnitudes: 2.8MC 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	12	89	EP		1021	13.67	-0.09							1.0
SHBL	BE	12	89	ES		1021	16.61	0.06							1.0
QRWL	SZ	23	16	EP		1021	14.84	0.01							1.0
QRWL	SN	23	16	ES		1021	18.36	-0.05							1.0
RCY	SZ	27	51	EP		1021	15.31	0.03	43						1.0
DQRL	SZ	40	354	EP		1021	17.10	0.05							1.0
HWQ	SZ	108	16	EP		1021	26.67	-0.22							0.2

June 29 2013 Hour: 16:15 38.6 Lat: 33.80N Lon: 35.79E Depth: 0 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	314	EP		1615	41.39	0.02	44						1.0
BHL	BN	17	314	ES		1615	43.42	0.02							1.0
DQRL	SZ	23	243	EP		1615	42.14	-0.12							1.0
DQRL	SE	23	243	ES		1615	44.98	0.03							1.0
RCY	SZ	34	172	EP		1615	44.01	-0.07							1.0
RCY	SN	34	172	ES		1615	48.14	0.03							1.0
HWQ	SZ	55	15	EP		1615	47.54	0.00							1.0

June 29 2013 Hour: 17: 6 56.5 Lat: 33.80N Lon: 35.76E Depth: 13 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	15	322	EP		17 6	59.84	-0.02	42						1.0
BHL	BN	15	322	ES		17 7	2.32	0.00							1.0
DQRL	SZ	20	239	EP		17 7	0.49	0.02							1.0
RCY	SZ	34	167	EP		17 7	2.40	-0.13							1.0
RCY	SN	34	167	ES		17 7	7.05	0.08							1.0
HWQ	SZ	56	18	EP		17 7	5.89	0.03							1.0

June 30 2013 Hour: 13:17 0.0 Agency: REL Regional
EMSC OT=13:16:13.0 35.90N 27.56E 10Km M=4.1 DODECANESE ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1317	55.87								
RCY	SZ			EP		1317	58.03								

June 30 2013 Hour: 15: 9 34.9 Lat: 33.54N Lon: 35.71E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC 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	295	EP		15 9	35.30	-0.05							1.0
RCY	SZ	13	111	EP		15 9	36.89	-0.11	37						1.0
RCY	SN	13	111	ES		15 9	38.59	0.05							1.0
SHBL	BZ	21	171	EP		15 9	38.34	-0.02							1.0
SHBL	BN	21	171	ES		15 9	40.94	0.03							1.0
DQRL	SZ	23	326	EP		15 9	38.65	0.10							1.0
BHL	BZ	41	353	EP		15 9	41.50	-0.01							1.0

Epicentral Map of Lebanon

JUNE 2013

